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HISPINE BEETLES FROM NEW CALEDONIA

(Chrysomelidae)¹

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ABSTRACT

The New Caledonia fauna in this subfamily proves to be rich compared with most neighboring areas. Although only one tribe is represented (as against 7 in Australia and 7 in New Guinea—Solomons), there are 6 genera (as against 2 in Samoa, 1 in Fiji, 2 in New Hebrides, 1 in Norfolk I. and Lord Howe I., none in New Zealand, 7 in Australia, and 22 in New Guinea—Solomons). Each of the 6 genera has 2 known species on the island, and all of the genera and species are precinctive except *Brontispa* and the widespread coconut pest *B. longissima*. Six new species and 2 new genera are described, as well as the first larvae of 4 species.

INTRODUCTION

A stop of eight days in New Caledonia at the end of February and early March of this year permitted an approximate doubling of the known hispine fauna of the island. Six species, of four genera, were previously known, and five new species, including two new genera, were collected, an additional species having been earlier loaned me by Dr. Cohic. Also, immature stages of four species were collected for the first time, providing the first biological data for three of the precinctive genera.

This paper represents a second supplement to "Hispine beetles from the South Pacific" (1957, *Nova Guinea* n. s. 8: 205–324). The first supplement, "Papuan—West Polynesian hispine beetles" (1960, *Pac. Ins.* 2: 1–90) included nothing significant regarding New Caledonia, but in the zoogeographic note it was predicted that more species should be found on the island.

The indications of relative faunal wealth for New Caledonia in this group and others

1. Partial results of the program "Zoogeography and evolution of Pacific insects", supported in part by a grant from the U. S. National Science Foundation.

suggests that my contention (1956, *Syst. Zool.* 5: 11-32, 47) that the island has an oceanic fauna may be incorrect. New Caledonia's fauna has some of the characteristics of an oceanic fauna, but in some respects it appears continental. It lacks many important groups of animals, and is clearly a highly disharmonic fauna. Thus it satisfies the prime criterion for an oceanic island. Furthermore, in this group I believe that the number of precinctive genera and species is attributable to the great age of the island, and does not prove a former continuous land connection. Anything of the latter sort would have had to have been at a very early date, or very temporary, to have avoided many groups lacking in New Caledonia and capable of surviving there. The six genera and 12 species (all but one of each precinctive) of Hispinae in New Caledonia suggests appreciable wealth, considering the lack of the subfamily in New Zealand, one genus with one species each on Lord Howe I. and Norfolk I., two genera and two species in the New Hebrides, one genus with two species in Fiji, one species in Tonga, two genera and two species in Samoa, and two genera with six species in Micronesia. On the other hand, it is significant that only one tribe is represented in New Caledonia, whereas there are seven in Australia (though each with only one genus), seven in New Guinea and the Solomons (22 genera), and two tribes each in the New Hebrides and Samoa.

The tribe represented in New Caledonia, the Cryptonychini, has no known precinctive genera or species in Australia, so it appears safe to say that in this group the New Caledonia fauna shows no relationship with that of Australia. Also, in this tribe there are no known precinctive species in the New Hebrides or Fiji, though there is one each in Lord Howe I., Norfolk I. and Samoa. There are four genera in the tribe in the Solomons and seven in New Guinea and the Bismarcks. This suggests the only obvious faunal source. The precinctive New Caledonia genera are related to those in New Guinea and the Solomons, although quite distinct in each case. Thus, it is a little difficult in two cases (*Torquispa* and *Teretrispa*) to state their nearest relatives. Possibly related forms will still be found in the Solomons, or even in the New Hebrides.

It is well known that conspicuous elements of the New Caledonia flora have relationships to certain elements in the Papuan flora on one hand and to the temperate South American flora through New Zealand on the other. New Caledonia has a very specialized fauna and flora which suggests ancient selective ("filter bridge") invasion, and long isolation. It must have been an isolated island since the breaking up of the ancient inner Melanesian arc, and since long before the re-emergence of the New Hebrides.

The plant families comprising the known New Caledonia host plants are Palmaceae (larvae, 4 species; adults, 3), Pandanaceae (larvae, 1 species, adults, 4) Cyperaceae (1), and Orchidaceae (1).

Acknowledgements: I am much indebted to Dr. F. Cotic, entomologist, and Dr. F. Bugnicourt, director, Institut Français d'Océanie, Noumea, for their great kindness in facilitating my field work in New Caledonia. I am grateful to Miss Marie Neal for identifications of host plants, to Mrs. Dorothy T. Rainwater for preparing the drawings, and to Miss Patricia Golden for typing.

TRIBE CRYPTONYCHINI

Following is a list of the species of Hispinae known from New Caledonia. Those asterisked are here described as new.

- | | |
|--|---|
| 1. <i>Brontispa longissima</i> (Gestro) | 7. <i>Stephanispa</i> * <i>freycineticola</i> * |
| 2. <i>B. veitchiae</i> * | 8. <i>S. cohici</i> * |
| 3. <i>Caledonispas sarasini</i> (Heller) | 9. <i>Teretrispa</i> * <i>gahniae</i> * |
| 4. <i>C. freycinetiae</i> * | 10. <i>T. orchidaceae</i> * |
| 5. <i>Isopedhispa ferruginea</i> Spaeth | 11. <i>Torquispa vittigera</i> Uhmann |
| 6. <i>I. cocotis</i> (Maulik) | 12. <i>T. caledoniae</i> Uhmann |

KEY TO NEW CALEDONIA GENERA OF HISPINAE (ADULTS)

1. Elytron without an extra scutellar row of punctures 2
Elytron with an extra scutellar row of punctures (sometimes not clear) 3
2. Frontoclypeus much longer than broad, narrowing distally; prosternum with a forward projecting flat process; prothorax with a distinct anterolateral tubercle ...
..... **Torquispa**
Frontoclypeus no longer than broad, subparallel-sided basally; prosternum with an anterior process; prothorax with a feeble anterolateral process **Teretrispa**
3. Interantennal process not extremely short; prothorax subrectangular, with anterolateral angles somewhat projecting 4
Interantennal process extremely short; prothorax sinuate at side, with anterolateral portion oblique and much narrower than base, or simply rounded and no wider there than at base 5
4. Interantennal process not curved upward like a thorn in ♂; elytron with interstices more or less even and similarly raised, except near apex **Brontispa**
Interantennal process curved upward distally like a thorn in ♂; elytron with approximately alternate interstices strongly raised throughout **Caledonispas**
5. Body fairly deep; central portion of head narrowed and rounded anterolaterally; prothorax subsquarish but sinuate at side with anterolateral portion rounded...
..... **Stephanispa**
Body quite flat; central portion of head broadened and acute anterolaterally; prothorax subpentagonal, narrowed anteriorly with anterolateral portion distinctly oblique **Isopedhispa**

KEY TO KNOWN LARVAE OF NEW CALEDONIA HISPINAE

1. Lateral processes of abdomen very short, broader than long; body subcylindrical (borers) 2
Lateral processes of abdomen much longer than broad, at least in part; body more or less dorso-ventrally flattened (feed between leaf surfaces) 3
2. Caudal process with emargination about twice as wide as deep and tubercles blunt; spiracles with openings strongly compressed ? **Caledonispas freycinetiae**
Caudal process with emargination about as wide as deep and tubercles acute; spiracles with openings broadly oval **Teretrispa gahniae**
3. Arms of caudal process not widely divergent apically 4
Arms of caudal process widely divergent apically **Isopedhispa cocotis**
4. Lateral processes of abdomen subequal in length, not very much longer posterior-

- ly; caudal process with arms stout and emargination distinctly narrower than basal portion of process 5
- Lateral processes of abdomen much longer on segment 7 and 8; caudal process with arms relatively slender, arcuate, with emargination about as wide as basal portion of process **Stephanispa freycineticola**
5. Lateral processes lacking on meso- and metathorax; arm of caudal process arcuate apically **Brontispa longissima**
- Lateral processes present on meso- and metathorax; arm of caudal process appearing transverse or truncate apically **Brontispa veitchiae**

Genus **Brontispa** Sharp

Brontispa Sharp, 1904, Linn. Soc. N. S. Wales, Proc. **28**: 924 (type *B. froggatti* Sh. = *longissima* Gestro). —Maulik, 1938, Zool. Soc. Lond., Proc. **B 108**: 49. —Gressitt, 1955, Ins. Micronesia **17** (1): 44; 1957, Nova Guinea, n. s. **8** (2): 220; 1960, Pac. Ins. **2** (1): 13.

Bronthispa Weise, 1905, Deutsche Ent. Zeitschr. **1905**: 300.

Planispa Chujo, 1937, Nat. Hist. Soc. Formosa, Trans. **27**: 223 (type: *P. castaneipennis* = *B. mariana* Spaeth).

This genus is known from the Pacific and Indian oceans. It includes important pests of coconut and other palms. The easternmost records are from Norfolk I., the New Hebrides, the Marshall Is., and Samoa.

KEY TO NEW CALEDONIA SPECIES OF BRONTISPA

- Frontoclypeus without deep cavities; pedicel about 1/3 as long as scape; elytron narrowly emarginate at apex near sutural angle; length 9–10 mm **longissima**
- Frontoclypeus with a pair of deep cavities apically; pedicel nearly as long as scape; elytron rounded apically; length 6.5–7.5 mm **veitchiae**

1. **Brontispa longissima** (Gestro) Fig. 1, a.

Oxycephala longissima Gestro, 1885, Mus. Civ. Genova, Ann. ser. 2, **2**: 162, fig. (Wokan, Aru Is.; type in Mus. Genova).

Brontispa froggatti, Risbec, 1934, Agron. Colon., Paris **23**: 7–10, figs. 1–3. See Gressitt, 1957, Nova Guinea n. s. **8** (2): 224 for synonymy and references to biology and immature stages.

This species is an important pest of coconut. Some were taken at Anse Vata, Noumea, on coconut, 29 Feb. 1960, Gressitt.

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.

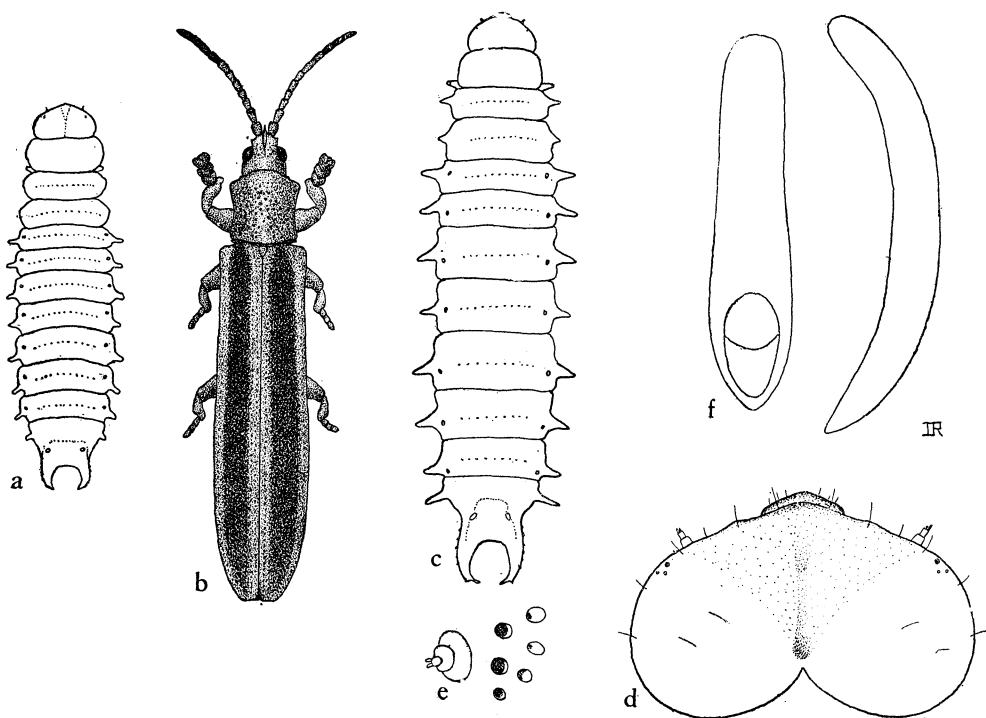


Fig. 1. a, *Brontispa longissima* (Gestro), dorsal view of larva; b, *B. veitchiae* n. sp., type; c, same, larva, dorsal view; d, same, head capsule of larva, dorsal view; e, same, antenna and eyes of left side, front view; f, same aedeagus.

2. *Brontispa veitchiae* Gressitt, n. sp. Fig. 1, b-f.

Male: Pale orange ochraceous, slightly more reddish on side of apex of elytron, and with a pitchy black stripe on elytron from just behind base to beginning of apical 1/6; antenna reddish, duller on last 4 segments; head rather pale, more ochraceous on neck; prothorax quite pale, slightly duller on anterior margin; scutellum slightly ochraceous; ventral surfaces and legs testaceous, slightly orange at sides of thorax. Body almost entirely glabrous; antenna with short pale hairs on last 4 segments; frontoclypeus with distinct erect golden hairs; tibiae with preapical golden pubescence; tarsal pads golden buff.

Head about as long as broad; central portion nearly square, parallel-sided, distinctly punctured, grooved medially on anterior 1/2; interantennal process 1/2 as long as scape, tapering and acute, very narrow above; frontoclypeus much longer than broad, widest anteriorly, finely punctured, and with a deep depression on each side of median portion in anterior 1/2; neck moderately punctured above. Antenna just over 1/3 as long as body; scape stout, thickest just before apex; segment 2 slightly shorter than 1, distinctly more slender, slightly thickened distally; 3 similar to 2 but distinctly shorter; 4 subequal to 2, 5 and 6; 7 slightly longer, 8-11 stouter, each slightly shorter than 7; 11 as long as 1, blunt apically. Prothorax longer than broad, suboblong, slightly narrowed from base to near end

on anterior $1/4$, then distinctly broadened, with anterolateral angle prominent, subevenly rounded, and slightly broader than base; anterior margin strongly convex; basal margin feebly sinuate; disc feebly convex, deeply punctured, with about 10 punctures across side from median line to external margin. Scutellum triangular, minutely punctured and depressed at center. Elytron just over $1/6$ as broad as long, slightly sinuate, narrowest at end of basal $2/5$, widest somewhat behind middle, subrounded-truncate apically; disc with about 8 regular rows of deep punctures at end of basal $1/3$ and about 10 rows at widest portion; interstices moderately raised, somewhat flattish basally and subcarinate on alternate interstices towards apex. Ventral surfaces moderately smooth, slightly frosted, with a few punctures at side and an irregular depression near side of each abdominal sternite. Legs short and stout, hind femur only slightly exceeding abdominal sternite 1; tarsi broad, each with segments 1–3 subequal in length, those of fore tarsus asymmetrical. Length 6.7 mm; breadth 1.35.

Female: Interantennal process less than $1/2$ as long as scape.

Paratypes: Length 6.5–7.4 mm; breadth 1.3–1.6.

Holotype, ♂ (BISHOP 2960), Foret de Thy, 550 m, near St. Louis, S. New Caledonia, on *Veitchia* palm, 1 March 1960, Gressitt and F. Cohic; allotype ♀ and 11 paratopotypes, same data; 4 paratypes, Col d'Amieu, 560 m, central New Caledonia, 3 March 1960, Gressitt.

Differs from *B. norfolkensis* Gress., to which it is closely related, in having the cavities on frontoclypeus more rounded and less indented, the interantennal process only $1/2$ as long, instead of as long, as scape in ♂, in having the pronotal disc more densely and more grossly punctured, and the coloration paler with the elytron striped with black.

Biology: Both adults and larvae feed on the under sides of partially expanded leaflets of *Veitchia* palms. Eggs and pupae should be found in the same niche. Leaflets which have been obstructed mechanically or by vines from opening properly are those most favorable for support of the beetle.

Larva: Very pale, nearly white, somewhat testaceous on caudal process, becoming pale brown at apices of arms; mouth parts testaceous with apex of mandible black. Body very slender, nearly parallel-sided, slightly narrowed anteriorly. Head not quite as broad as prothorax, $1.6 \times$ as broad as long, subevenly rounded at side, rounded-obtuse anteriorly and shallowly concave at middle of base; surface minutely granulose, with a median groove which widens and deepens anterior to center and a fine sinuate groove which extends from near base to between eyes and antenna; anterior portion and sides with a few scattered hairs which are mostly slightly longer than antenna; antenna strongly tapering, barely longer than breadth at base; eyes with distinct black ones in a vertical row near antenna and at least one partly pigmented one in 2nd row. Prothorax transversely suboblong, $5/9$ as long as broad, unevenly rounded at side; surface minutely granulose, slightly shiny near anterior and posterior borders, with a weak median groove and some oblique or arcuate depressions towards side; prothoracic spiracle very large, nearly as long as 1st abdominal process and stouter, gradually tapering to the round truncate apex; mesothorax and metathorax similar, slightly broader than prothorax, each finely granulose and crossed by a subtransverse groove, and bearing a lateral process which is slightly smaller than prothoracic spiracle. Abdomen with first 7 segments similar, transversely oblong and weakly obtuse at side; each finely granulose above, crossed near middle by feebly arcuate trans-

verse groove, bearing a small spiracle near side which is no higher than wide and very much smaller than prothoracic spiracle, and with a fairly slender tapering lateral process which is 1/2 again as long as that of mesothorax; process of segment 7 slightly larger and subequal to that of 8; segment 8 narrowed from base to near middle and caudal process much longer than broad, widest behind middle, with arms feebly arched, curving slightly inward to just before apex and then bearing a stout inward projecting process almost at right angles; process with an upward directed fine tooth at apex and end of main arm with a blunt tubercle just beyond base of process; upper and lower margins of arm bearing a few widely spaced small tubercles; spiracle nearly round, adjacent to upper margin of arm and some distance from base of process; apical emargination between arms, rounded-squarish, widest behind middle and about as broad as long. Legs each nearly 1/3 as long as width of thorax. Abdominal sternite 4 minutely granulose, with a fairly broad irregular transverse depression and a short fairly deep suboblique depression between transverse groove and side of segment. Length 9 mm; breadth 1.7.

HOST: *Veitchia* sp. (Palmaceae).

DISTRIBUTION: New Caledonia (S side of main range).

Genus *Caledonispa* Uhmann

Caledonispa Uhmann, 1952, Münchner Ent. Ges., Mitt. 42: 82 (type: *Brontispa sarasini* Heller; New Caledonia).

This genus is known only from New Caledonia.

Biology: Apparently the larvae and adults have separate hosts in this genus. Adults were found only in Pandanaceae. Since many crowns were examined without finding larvae or any indications of larval feeding, it seems safe to assume that the larvae have other hosts. One larva probable referably to this genus was found in the crown of a small palm (*Ptychosperma*). It is tentatively associated with the new species described below, because of the altitude and plant association of the collection-site seeming to fit better with *freycinetiae*.

KEY TO SPECIES OF CALEDONISPA

- Interantennal process twice as long as scape in ♂, about as long as scape in ♀;
body almost entirely shiny black, very narrow and hardly widened posteriorly
..... **sarasini**
- Interantennal process shorter than scape in ♂, much shorter in ♀; body largely red-
dish brown, with 2 yellow costae on elytron, which is distinctly broadened post-
medially..... **freycinetiae**

3. *Caledonispa sarasini* (Heller) Fig. 2, f.

Brontispa sarasini Heller, 1916, Nova Caledonia, Zool. 2: 306, text figs. 9-10, pl. 11, fig. 17 (Mt. Kanala, New Caledonia; type in Mus. Naturk. Dresden). — Spaeth, 1936, Temminckia 1: 294. — Maulik, 1938, Zool. Soc. Lond., Proc. B 108: 50. — Risbec, 1936, Agron. Col., Paris 25: 185; 1942, Obs. Ins. Plant. Nlle Caledonie, Paris: 69.

Caledonispa sarasini, Uhmann, 1952, Münchner Ent. Ges., Mitt. 42: 83 (lectotype in Dresden Mus.).

The material cited and illustrated by me in 1957, *Nova Guinea*, n. s. 8 (2): 228, fig. 5b was incorrectly identified, and belongs to the following new species, or possibly to a different local race. There seems to be a considerable degree of isolation of populations fostering local speciation in different parts of New Caledonia. More field work is needed to settle such matters. Lepesme (1947, Ins. Palmiers, 546) cited this species from *Cocos nucifera* by mistake.

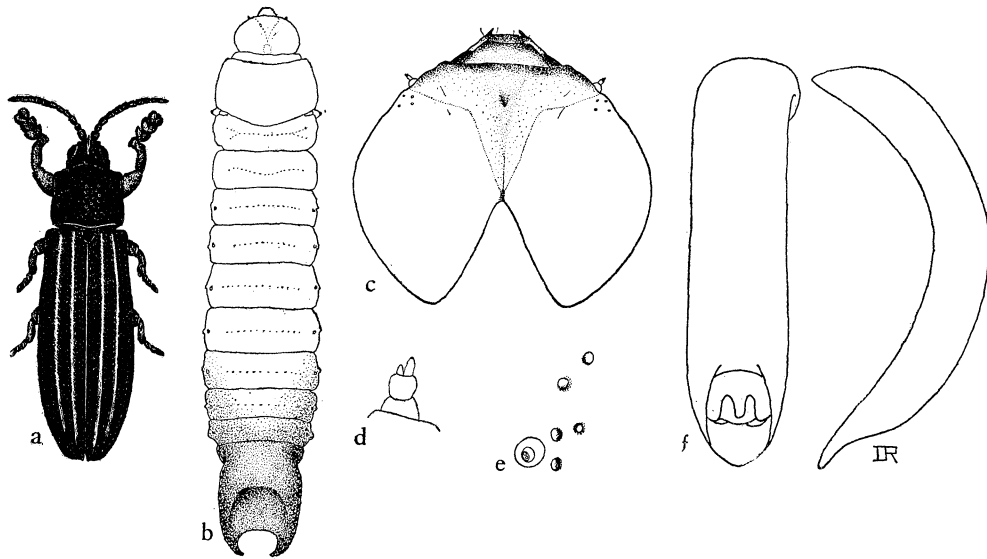


Fig. 2. a, *Caledonispa freycinetiae* n. sp., type; b, same, dorsal view of tentatively associated larva; c, same, head capsule, dorsal view; d, same, antenna, side view; e, same, eyes with left antenna, front view; f, *C. sarasini* (Heller), aedeagus.

Three specimens, 2 ♂, 1 ♀, were taken on Plateau de Dogny, 1035 m, C New Caledonia, 4 March 1960, Gressitt.

Biology: The adults feed in the crowns of a pandan with very pale, partly pinkish leaves in wet forest at fairly high altitudes. It is very unlikely that the larvae have the same niche, and they may feed in *Ptychosperma* palms which grow in the same plant association.

Host: *Pandanus* sp.

DISTRIBUTION: New Caledonia (central mountains).

4. *Caledonispa freycinetiae* Gressitt, n. sp. Fig. 2, a-e.

Female: Reddish brown to pitchy or pale yellow; head pale reddish brown, becoming pitchy to blackish on under surfaces and lower parts of genae; mandible black; antenna red, becoming pitchy apically; prothorax reddish brown, slightly pitchy on apical margin,

around center of disc, on sides, and somewhat orange on lateral portion of disc; scutellum pitchy black, somewhat reddish apically; elytron reddish brown, pitchy brown along suture and side from humerus to apex and on external margin from middle to apex, bright yellowish on interspaces 3 and 5 from extreme base to just before apical declivity, slightly yellowish on anterior 1/2 of external margin; ventral surfaces pitchy black, a reddish brown spot at side of each abdominal sternite and last sternite largely ochraceous to reddish brown in apical 2/3; legs reddish brown with basal 2/3 of each femur pitchy black and parts of tibiae somewhat pitchy. Body glabrous except for a few erect reddish brown hairs on frontoclypeus and labrum, some very short silvery buff hairs on distal portion of antenna, and golden pubescence on tarsal pads and apices of tibiae.

Head slightly broader than long as viewed above, wider at neck than at eyes; central portion trapeziform, somewhat narrowed anteriorly and rounded at anterolateral angles, its surface fairly flat, densely and subfinely punctured, with a fine median groove from middle to anterior margin where it is deepest; interantennal process 2/5 as long as scape, fairly narrow and blunt apically; frontoclypeus about as broad as long, raised along median line and with some oblique raised lines and grooves, emarginate basally and angulate apically where it joins base of interantennal process; labrum transverse, with a rounded swelling at middle; neck feebly punctured except for some continuation of punctures from central portion of head on either side of median line which is somewhat raised. Antenna less than 1/3 as long as body, slightly flattened and broadened apically; segment 1 fairly stout, broadest slightly beyond middle, about 1/3 longer than broad; 2 much smaller, barely longer than broad; 3 subcylindrical, 2/3 again as long as broad, subequal to 4; 5 slightly longer than 4 and 6; 7 slightly longer than 6, broader at base; 8 shorter than 7, subequal to 9 and 10; 11 slightly longer than 5, blunt apically. Prothorax 1/8 broader than long, subrectangular, slightly sinuate at side, broadest behind middle, constricted anterior to middle and broadly rounded at anterolateral angle; anterior margin distinctly convex in outline; basal margin similarly convex; basal angle with a slight constriction followed by a small acute tooth pointing externally and slightly posteriorly; disc moderately convex, depressed along median line, heavily but not very closely punctured along central portion and finely and very densely punctured on remainder except near anterior margin where it is impunctate. Scutellum slightly longer than broad, narrowed and rounded apically. Elytron just over 1/6 as broad as long, subparallel anteriorly then gradually widened to behind base, gradually narrowed apically and briefly sinuate-truncate near sutural angle; disc with 9 puncture-rows on most of basal 1/3 and 10-12 rows in postmedian portion, an extra row added between 1st and 2nd just after end of scutellar row and additional extra rows added between 1st 2 and 2nd 2 costae behind middle, interspaces 3 and 5 distinctly raised from extreme base almost to apical margin, and interspace 7 more or less carinate from behind humerus to apical declivity. Ventral surfaces partly shiny, obliquely striate on metasternum and less distinctly and longitudinally striate on abdominal sternites, only a few feeble to moderate punctures at sides of thorax and abdominal sternites; last sternite with many minute punctures, emarginate apically. Legs fairly short; femora mostly obliquely grooved on the basal portions and punctured apically, fore femur stouter than others; hind femur barely exceeding middle of sternite 2; hind tarsus with segment 1 slightly smaller than 2, and 3 longest. Length 16 mm; breadth 4.6.

Paratypes: Length 14-16.4 mm; breadth 4-5.2.

Holotype, ♀ (BISHOP 2961), slope south of Plateau de Dogny, 950 m, in medium sized *Freycinetia*, 4 March 1960, Gressitt. Three paratopotypes, all ♀, same data.

Differs from *C. sarasini* in being largely reddish brown with yellow stripes instead of almost entirely shiny black and in having the interantennal process much shorter, central portion of head flatter and more finely punctured, the pronotum more convex, uneven and more grossly punctured on central portion, and the first 2 elytral carinae much broader, smoother and less sharply raised as well as having the body somewhat less narrow. As mentioned under *C. sarasini* the series identified by me in 1957 as that species may possibly belong here or may represent a new species. The latter are smaller and less brightly striped, and appear to have other minor differences.

Biology: The adults feed in the crowns of a medium-small *Freycinetia* vine (Pandanaeaceae). The larvae apparently have a different host, and the larva described below is tentatively associated with this species. This larva bores in the top of the shoot at the base of the crown, in small palms of the genus *Ptychosperma*. The tunnel starts at the base of the crown, and the larva works head downward in the middle of the stem.

Larva (tentative association): Pale creamy white, in part testaceous to pitchy black; head testaceous, pale around labrum, blackish on mandible and anterior border of head capsule; pronotal disc pale ochraceous; abdomen dull testaceous posteriorly; caudal process largely pitchy black, paler at apex. Body deep, subcylindrical and subparallel-sided. Head nearly as long as broad, subcircular, angularly emarginate behind for about basal 1/4, medially grooved above, the groove terminating anteriorly in a very deep fossa with a pore on each side bearing a bristle; surface minutely granulose and with 2 fine oblique lines on each side from direction of antenna toward base of posterior emargination; antenna strongly tapering, slightly longer than breadth at base, consisting of 4 segments, the last very small and with an accessory minute lobe at end of segment 3; eyes apparently 5 in number, 3 in first vertical row and 2 less pigmented ones in outer row. Prothorax just over 5/8 as long as broad, strongly convex in posterior outline; disc closely granulose, feebly convex above with an oblique groove at side and below the groove a slightly more callous pigmented area; thoracic spiracle strongly compressed, vertical; mesonotum and metanotum each with a deep transverse groove and with a very small lateral process, slightly broader than long. Abdomen with first 7 segments similar, becoming slightly broader and shorter posteriorly; each crossed by a transverse groove at middle and with surface minutely granulose; spiracles similar, becoming slightly larger on segments 6 and 7, each narrowly elliptical and oblique; lateral processes extremely short, all broader than long or about as broad as long, quite blunt, pubescent apically and slightly larger on segments 6 and 7; last segment stout, caudal process about 1/3 longer than broad, sinuous laterally with arms curved inward and suddenly acute apically, emargination between arms nearly twice as broad as long; apical concavity very deep, fairly smooth, slightly pitted and grooved near emargination and with spiracle about 7× as long as broad and nearly vertical commencing from upper border of apical concavity; upper and outer surfaces entirely covered with very short blunt tubercles, mostly broader than high and becoming smaller and more acute towards apex of arm; a low tubercle bearing a tuft of fairly long hairs on outer side of arm just before apex. Legs each about 1/6 as long as breadth of thorax, each bearing an acute pitchy black claw. Each abdominal sternite with a large subsemicircular swelling, directed posteriorly, on which there is a preapical transverse groove met by a pair of widely separated subparallel longitudinal grooves, besides additional

oblique grooves near side of segment. Length 25.5 mm; breadth 5.7.

HOST: Adult in *Freycinetia* sp. (Pandanaceae); presumed larva in *Ptychosperma* sp. (Palmeaceae).

DISTRIBUTION: New Caledonia (S side central mountain range).

Genus *Isopedhispa* Spaeth

Isopedhispa Spaeth, 1936, *Temminckia* 1: 291 (type: *I. ferruginea* Sp.; New Caledonia).

This genus is limited to New Caledonia.

KEY TO SPECIES OF ISOPEDHISPA

- Dorsum entirely ferruginous; interantennal process minute; prothorax almost as long as broad, much narrower at anterior angles than at base, further narrowed towards apex, punctured more near middle of disc..... **ferruginea**
- Dorsum almost entirely black; interantennal process distinct; prothorax distinctly broader than long, not as strongly narrowed anteriorly with more or less 2 anterior corners, punctured more closely at side of disc..... **cocotis**

5. *Isopedhispa ferruginea* Spaeth

Isopedhispa ferruginea Spaeth, 1936, *Temminckia* 1: 292 (Mt. Panié, New Caledonia; type in British Mus.).

This species presumably feeds on some native palm.

Material examined: The type specimen.

DISTRIBUTION: New Caledonia.

6. *Isopedhispa cocotis* (Maulik) Fig. 3, a-c.

Plesispa cocotis Maulik, 1933, *Entomologist* 66: 280, fig. 1 (New Caledonia; type in British Mus.).—Risbec, 1934, *Agron. Colon.*, Paris 23: 10, 47-53, 8 figs.; 1936, op. cit. 25: 183, figs. 88-90.—Maulik, 1937, *Zool. Soc. Lond., Proc. A* 1937: 146.—Risbec, 1942, *Obs. Ins. Plant. Nlle Calédonie*, Paris, *Secr. d'Etat aux Colonies*, 1-128, ill. (p. 67).—Lepesme, 1947, *Ins. Palmiers*, 547.

Isopedhispa cocotis, Spaeth, 1936, *Temminckia* 1: 293.—Uhmann, 1954, *Inst. Roy. Sci. Nat. Belgique*, *Bull.* 30 (38): 8.

Material was taken E of Noumea by F. Cohic.

Biology: The biology is described by Risbec in the above references.

HOST: *Cocos nucifera*.

DISTRIBUTION: New Caledonia (various parts, both sides of main range).

Genus *Stephanispa* Gressitt, new genus

Cryptonychini. Interantennal process very short; head narrowed and rounded anterior to eyes; frontoclypeus broader than long; prothorax subsquarish, feebly sinuate at side; elytron with 8-10 rows of punctures at middle, with 2nd (or 3rd) and humeral interspaces

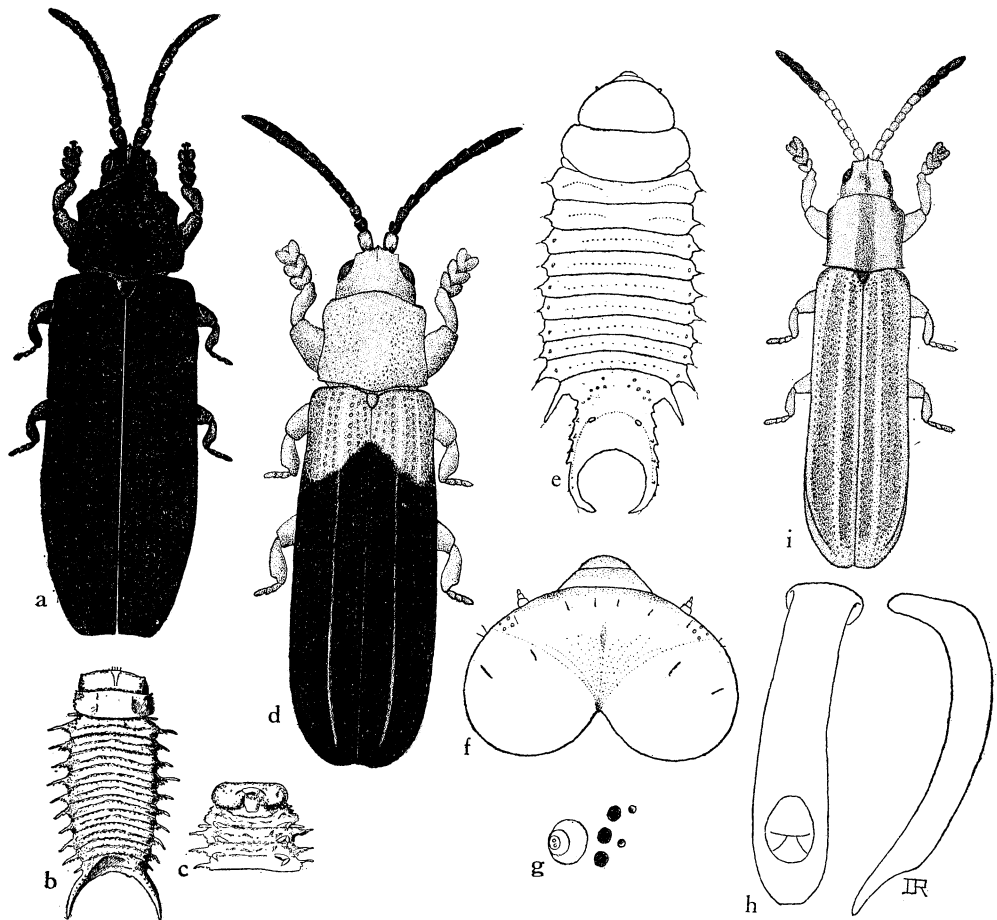


Fig. 3. a, *Isopedhispa cocotis* (Maulik), from near Noumea; b, same, larva (after Risbec); c, same, anterior portion, ventral view (after Risbec); d, *Stephanispa freycineticola* n. sp., type; e, same, larva, dorsal view; f, same, head capsule, dorsal view; g, same, antenna and eyes of left side, front view; h, same, aedeagus; i, *Stephanispa cohici* n. sp., type.

raised.

Head slightly narrower than prothorax, widest just behind eyes; central portion of head narrowed and rounded anterior to eyes; interantennal process extremely short, about as long as broad; frontoclypeus broader than long, flat; labrum transverse on apical margin. Antenna $1/3$ to $2/5$ as long as body, distinctly broadened apically, with segment 3 longer than 2, 4 and 6. Prothorax subsquarish, feebly sinuate at side, rounded and oblique at anterolateral corner; disc rather finely punctured. Elytron somewhat broadened post-medially, with apical margin broadened and flattened; disc with fairly small deep punctures, in 8-9 rows near base, 8-10 at middle, and more rows posteriorly, and with sutural row not clearly defined, or followed by a normal row, and with approximately alternate interspaces (basally) raised, the inner and outer carinae extending farther posteriorward

than middle carina. Legs stout; hind femur exceeding middle of sternite 2.

Generotype: *Stephanispa freycineticola* n. sp., by present designation.

Range: New Caledonia.

Differs from *Callistola* Dejean in having the head narrowed and rounded anteriorly, broadened behind eyes, the prothorax more rectangular, not strongly obliquely narrowed anteriorly, and the elytron with more puncture-rows, smaller punctures and fewer and finer raised interspaces.

The name of this genus is derived from *Stephanos* (Gr.), a crown, referring to the beetle's niche, the terminal crown of *Freycinetia* vines; plus *Hispa* (Hispinae).

KEY TO SPECIES OF STEPHANISPA

- Head and prothorax without blackish stripes; elytron pale basally and black to pitchy brown behind basal area; pronotum nearly impunctate on center of disc; elytron with 9 puncture-rows at end of basal 1/3..... **freycineticola**
- Head and prothorax with 3 longitudinal blackish stripes; elytron longitudinally striped with yellow and pitchy; pronotum entirely closely punctured; elytron with 8 puncture-rows at end of basal 1/3..... **cohici**

7. *Stephanispa freycineticola* Gressitt, n. sp. Fig. 3, d-h.

Male: Orange testaceous to black: head pale, slightly more orange on neck, black on mandible and eye; antenna black with segment 1 orange above and 8-11 reddish; prothorax pale testaceous, more orange on anterior portion of disc and along a stripe midway between center and margin; scutellum orange; elytron testaceous on about basal 1/4, remainder pitchy black to dull brown, the anterior border of dark portion darkest, extending obliquely forward to suture at about end of basal 1/6 and along suture to just below humerus, and palest on apical margin and longitudinal carinae; ventral surfaces testaceous, vaguely blotched with varying shades on parts of abdomen; legs testaceous, slightly dull on hind femur and reddish on trochanters and parts of tarsi. Body glabrous except for some short erect pale hairs on frontoclypeus, some longer ones on labrum, short golden buff pubescence on antennal segments 7-11, and golden pubescence on tibial apices and tarsal pads.

Head slightly narrower than prothorax, as broad as long, with central portion narrowed and rounded anterior to eyes, evenly swollen, moderately punctured, and grooved anteriorly; inter-antennal process very short, about as long as broad; frontoclypeus broader than long, obtuse apically, flat, finely punctured; neck nearly impunctate. Antenna 3/8 as long as body, slightly widened distally; segment 1 nearly twice as long as broad; 2nd 1/2 as long as 1, slightly longer than broad; 3rd 1.5× as long as 2, slightly thickened preapically; 4 and 5 similar to 3; 6 similar but slightly shorter; 7 distinctly longer than 3, gradually thickened to apex; 8 as long as 7 but stouter; 9 and 10 slightly longer than 7, hardly thickened apically; 11 slightly longer than 1, rounded apically and somewhat flattened. Prothorax as broad as long; side feebly constricted in middle, nearly as broad anteriorly as basally, narrowed toward anterior angle which is very slightly projecting; anterior margin evenly convex; basal angle with a narrow emargination followed by a distinct rounded tooth which

barely projects beyond lateral margin; disc with punctures which are mostly deep and narrowed longitudinally, being sparse apically and along central portion. Scutellum slightly longer than broad, parallel-sided and then obtuse apically. Elytron just over $1/5$ as broad as long, gradually widened to a short distance before apex, broadly rounded apically; disc with 9 puncture-rows near base and 9 anterior to middle, an extra row 2 being added shortly after termination of scutellar row, and an extra row 4 being added at middle; surface with 3 raised carinae, 1st in interspace 3, 2nd in 5, and 3rd in 7 just anterior to middle; carina 1 extending from base to apex, 2 starting at base and disappearing just behind middle, and 3 starting from humerus and terminating at beginning of apical declivity, 1 and 3 most pronounced and strongest near apical declivity; lateral margin fairly broad, becoming much broader in apical portion. Ventral surfaces in large part minutely punctured, with some larger punctures at side of thorax. Legs stout; middle femur fully $1/2$ as broad as long; hind femur barely reaching end of abdominal sternite 2; hind tarsus with segment 2 larger than 1 and 3 distinctly longer than 2 and nearly reaching claw. Length 8.7 mm; breadth 2.4.

Paratypes: Elytron with dark portions paler, pitchy areas largely brown to reddish brown and black portions pitchy, anterior extension at suture sometimes nearly reaching scutellum. Length 8.2–8.6 mm; breadth 2.4–2.6.

Holotype, ♂ (BISHOP 2962), Col d'Amieu, 570 m, S side of pass over mountains between La Foa and Canala, central New Caledonia, in small *Freycinetia* crowns, 3 Mar. 1960, Gressitt; 3 paratopotypes, same data; 2 paratypes, Sarraméa, 200 m, inland from La Foa, 2 Mar.; 2 paratypes, Forêt de Thy, 550 m, 1 Mar., Gressitt, all from small *Freycinetia*.

This species is suggestive of members of *Callistola*, subgenus *Freycinetivora* Gress., from the Solomon Is., but differs considerably in form of head, prothorax and elytral disc.

Biology: All stages are to be found in the terminal crowns of small *Freycinetia* vines growing on trees in damp forest. Both larvae and adults feed on the bases of the new leaves.

Larva: Color pale testaceous, almost colorless on last 2 lateral abdominal processes, pitchy brown on caudal process, with spiracle pale. Head nearly $3/5$ as broad as abdomen at widest part, $3/4$ as long as broad, slightly concave at middle of posterior margin; surface moderately convex, depressed along median line, minutely reticulate; eyes in 2 vertical rows, 3 distinct black ones in row 1, and 2 partly pigmented and 1 unpigmented one in row 2; antenna fairly stout, nearly as broad at base as length. Pronotum without a pigmented area, closely reticulate, with a shallow transverse depression on each side on median line behind center; thoracic spiracle larger than abdominal spiracles, round and cylindrical apically, about as long as broad; mesonotum and metanotum each crossed by a fairly deep transverse or slightly sinuate groove, and with lateral process rather small, about as long as breadth at base and terminating with a single seta. Abdominal tergites finely reticulate, crossed by a transverse groove, similar to metanotum but shorter; spiracles rather small, but 7th larger, nearly as high as thoracic spiracle but narrower at base; lateral processes of segments 1–5 similar to those on hind thorax, that of 6 somewhat larger and those of 7 and 8 several times as large as process of 6; these latter tapering apically and nearly $4\times$ as long as breadth near base; caudal process large, fairly narrow near base and with arms broadening posteriorly and then recurving inward and terminating as acute spines directed obliquely backward; side of process with about 10 short stout tuber-

cles which become smaller posteriorly; upper portion of base concave and separated from apical declivity by transverse ridge just above spiracles which are moderately large; and nearly round; emargination formed by arms of process nearly circular. Thoracic legs each about as long as 1/4 width of thorax; abdominal sternites each with an oblique groove at side of central portion and with longitudinal wrinkles toward sides. Length 3.8 mm; breadth 1.2 (presumably 2nd instar).

HOST: *Freycinetia* (small species). Pandanaceae.

DISTRIBUTION: New Caledonia (S side of central mountains).

8. *Stephanispa cohici* Gressitt, n. sp. Fig. 3, i.

Pale testaceous to pitchy black: head pale, with a pitchy stripe from middle of top of head to posterior margin and a more blackish stripe on side from hind margin of eye to neck; mandible pitchy; antenna ochraceous, dark reddish brown on last 3 segments above and last 4 beneath; prothorax pale, with median pitchy black stripe which is not distinct at anterior margin, and a slightly wider more blackish stripe along side; scutellum pitchy brown; elytron ochraceous, with discal carinae pale testaceous, and with 3 narrow pitchy black stripes, 1 on interspace 1, 2 on interspace beyond carina 1, and 3 at side from extreme base to end of second 1/3, and also suture slightly pitchy on apical declivity; ventral surfaces pale testaceous; legs pale testaceous with bases of tibiae and parts of tarsi, including claws, pale reddish. Body almost glabrous, with short pale hairs on distal 1/2 of antenna, and pale suberect hairs on frontoclypeus; tibiae with only a few preapical or apical hairs and tarsal pads very pale.

Head slightly broader than long, distinctly narrower than prothorax, widest at neck; central portion trapeziform, narrowed anteriorly, distinctly raised at side, grooved medially and rather finely and closely punctured; interantennal process about 1/3 as long as scape, tapering and subacute apically; frontoclypeus slightly longer than broad, slightly constricted in middle, somewhat irregularly punctured; neck finely and closely punctured above, almost impunctate at side. Antenna just over 1/3 as long as body, slightly thickened preapically; segment 1 stout, subcylindrical; 2 slightly smaller than 1, distinctly shorter; 3 a little more slender than 2 and slightly longer; 4 shorter than 3; 5 nearly as long as 3; 2 subequal to 4; 7 about as long as 3 and slightly stouter; 8 as long as 7, slightly stouter; 9 and 10 each slightly longer than 8, stouter and more cylindrical; 11 longest, rounded-obtuse apically and slightly compressed. Prothorax nearly as broad as long, subparallel-sided, narrowed at apex; anterior margin strongly convex; basal margin sinuate, moderately convex at central portion; disc subevenly convex, rather closely and subfinely punctured, at least 12 punctures from center to middle of side. Scutellum scutiform, minutely punctured. Elytron nearly 1/5 as broad as long, subparallel-sided, weakly constricted at end of basal 2/5, hardly wider behind middle than near base, subevenly-rounded apically with middle of apex projecting slightly beyond sutural angle; disc with 8 regular rows of punctures just anterior to middle and with an extra row added for a short distance before apical declivity and another partial extra one at side before apex, interstices 2 and 6 strongly carinate, the former reaching external margin and the latter terminating at beginning of apical declivity, and also interstice 4 slightly raised on basal portion. Ventral surfaces fairly smooth, with only a very few minute punctures at side of metasternum; sides

of abdominal sternites slightly uneven but hardly punctured. Legs fairly short and stout; hind femur reaching middle of abdominal sternite 2; tarsal segment 1 subequal to 2, 3 longer. Length 5.5 mm; breadth 1.3.

Paratype: Length 6.4 mm; breadth 1.5.

Holotype ♂ ? (BISHOP 2963), Sarraméa, 200 m, inland from La Foa, central New Caledonia, in terminal crown of small *Freycinetia*, 2 Mar. 1960, Gressitt; paratype, same data.

Differs from the type species in being much smaller and more slender, longitudinally striped, and in having a slightly longer interantennal process, more densely punctured pronotum, and the elytron with fewer puncture-rows.

Named for Dr. F. Cohic, entomologist, Institut Français d'Océanie, Noumea, in token of gratitude for extensive help in field work.

HOST: *Freycinetia* (small species).

DISTRIBUTION: New Caledonia (near center).

Genus *Teretrispa* Gressitt, new genus

Cryptonychini. Interantennal process of moderate length; frontoclypeus broad; prothorax narrowed anteriorly and with obtuse anterolateral angle; elytron without an extra scutellar row of punctures, and with interstice 2 broad and strongly raised.

Head much narrower than prothorax; central portion projecting beyond eyes; interantennal process 1/2 as long as scape; frontoclypeus nearly as broad as long, obtuse apically; labrum chevron-shaped; mandibles obliquely placed, forming a chevron in resting position. Antenna about 1/3 as long as body, slightly broadened apically, with segment 3 longer than 2 and each of 4-6. Prothorax distinctly or feebly narrowed anteriorly, with anterolateral angle moderately prominent and disc deeply punctured. Elytron narrow, slightly widened behind middle, subtruncate apically, with 6 or 7 rows of punctures at end of basal 1/3 and more rows basally and postmedially, and with interstice 2 strongly carinate. Legs stout with hind femur hardly reaching middle of sternite 2.

Generotype: *Teretrispa gahniae* n. sp., by present designation.

Range: New Caledonia

Differs from *Torquispa* Uhmann in having the frontoclypeus nearly as broad as long, instead of several times as long as broad, and more or less obtuse apically instead of acute, and in lacking an anterior-projecting plate on the prosternum, in having the scape much stouter and less cylindrical, the pedicel shorter than antennal segment 3, and the prothorax less tuberculate anterolaterally. The species of *Teretrispa* are much smaller than those of *Torquispa*.

The name of this genus is derived from *Teretron* (Gr.), a borer, referring to the fact that the larva bores in the stems of sedges; plus *Hispa*, spiny (referring to the subfamily name).

KEY TO SPECIES OF TERETRISPA

Central portion of head fairly flat; prothorax distinctly narrowed anteriorly, strongly

- protruding anterolaterally, disc with many punctures on center; 7 puncture-rows at end of basal 1/3 of elytron **gahniae**
- Central portion of head convex, uneven; prothorax feebly narrowed anteriorly, weakly protruding anterolaterally, disc with few punctures on center; 6 puncture-rows at end of basal 1/3 of elytron..... **orchidaceae**

9. *Teretrispa gahniae* Gressitt, n. sp. Fig. 4, a-h.

Female: Pitchy black to pale testaceous: head pitchy black above, largely reddish pitchy beneath; antenna nearly black; prothorax pitchy brown above, more reddish beneath; scutellum pitchy brown; elytron reddish brown, yellowish testaceous on interspace 2 and external margin in basal 1/2, and pitchy blackish on suture and along a broad humeral stripe which becomes brownish towards apex; ventral surfaces reddish brown, pitchy at side of metathorax and somewhat testaceous at sides of abdominal sternites and on most of last; pygidium pale brown; legs reddish brown, duller on parts of fore and hind femora. Body glabrous except for erect whitish hairs on frontoclypeus, longer goldish hairs on labrum, thin golden brown pubescence on last few antennal segments, a few golden hairs on apices of tibiae and golden orange tarsal pads.

Head about as long as broad, as wide at eyes as at neck; central portion subrectangular, very slightly narrowed anteriorly and projecting moderately forward beyond eyes, its surface somewhat uneven and closely impressed with deep punctures, and with a shallow median groove which becomes deeper at anterior margin; interantennal process 1/2 as long as scape, tapered anteriorly but slightly broadened and blunt at apex; frontoclypeus about as broad as long, emarginate basally and obtuse apically except for narrow continuation at underside of interantennal process, its surface depressed, rather strongly punctured and uneven; labrum chevron-shaped, somewhat protruding at middle of apex; mandibles obliquely placed, extending forward into emargination of labrum; neck finely punctured beneath and at side and deeply and closely punctured above. Antenna 2/7 as long as broad, broadened and somewhat flattened apically; segment 1 stout and deep, slightly longer than broad; 2 much smaller, slightly longer than broad; 3rd 1.5× as long as 2; 4 nearly as long as 3; 5 slightly shorter than 4; 6=5; 7 slightly longer than 3 and broadened apically; 8 slightly larger than 7; 9 and 10 barely longer than 7 and slightly stouter; 11 longest, 1.4× as long as 10 and blunt apically. Prothorax slightly broader than long, widest near base, gradually narrowed to anterior to middle and then expanded to form a prominent anterolateral angle which is obtusely rounded and then narrowed again to apex; apical margin moderately convex; basal margin somewhat sinuate, broadly convex at middle; basal angle obliquely excavated and followed by a small acute tubercle directed externally; disc slightly uneven with a depression on each side of center and almost entirely covered with fairly large moderately deep punctures, about 13 punctures between center and external margin; scutellum scutiform, slightly wider just behind middle than near base and obtuse apically. Elytron 1/6 as broad as long, subparallel, slightly constricted at end of second 1/5, widest behind middle, narrowed and obliquely truncate apically, disc with 8 rows of punctures near base, 7 at end of basal 1/3, 8 at beginning of apical 1/3, and 9 at beginning of apical 1/5; interspace 2 raised as a strong carina from base to apex, other interspaces slightly carinate posteriorly, and external margins strongly swollen throughout. Ventral surfaces fairly smooth, with a few punctures at side of thorax,

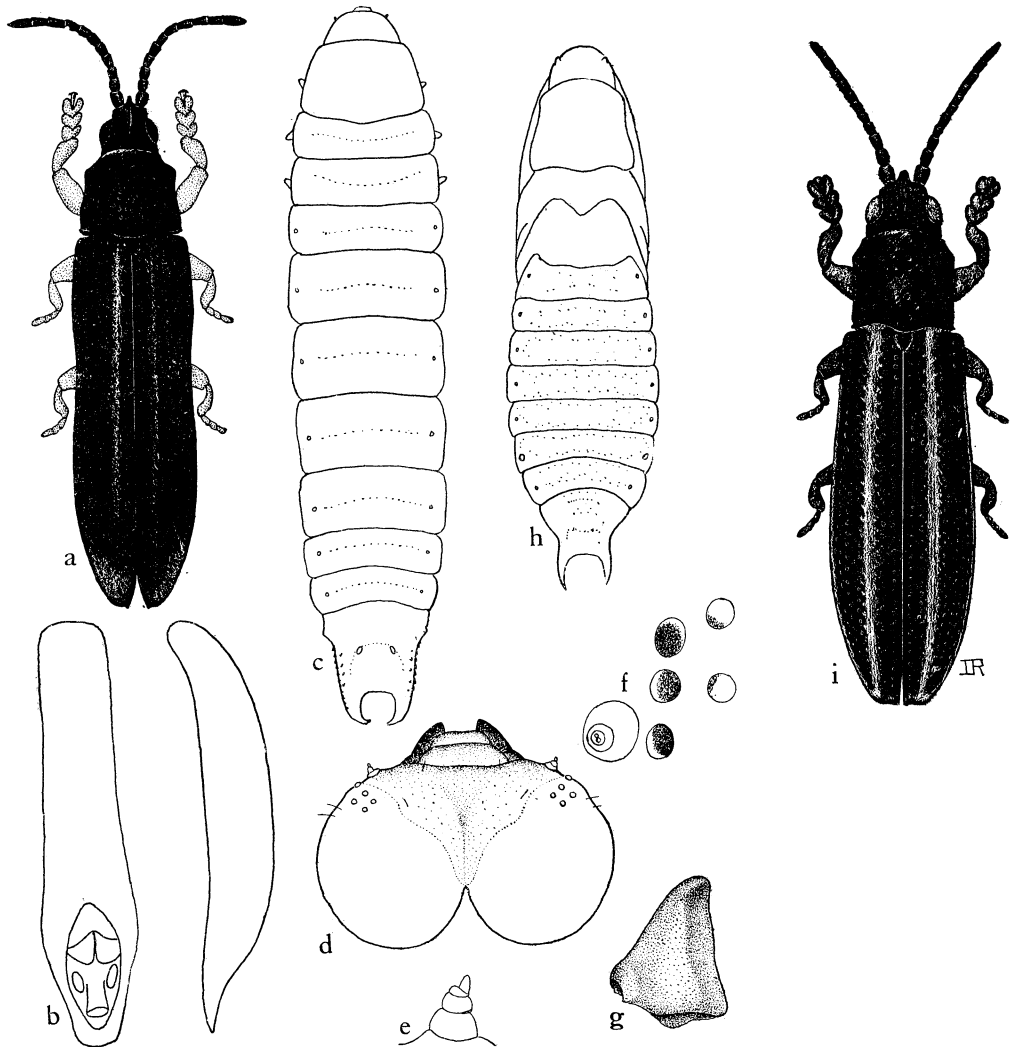


Fig. 4. a, *Teretrispa gahniae* n. sp., type; b, same, aedeagus; c, same, larva; d, same, head capsule, dorsal view; e, same, antenna, side view; f, same, antenna and eyes of left side, front view; g, same, left mandible, dorsal view; h, *T. gahniae*, pupa, dorsal view; i, *T. orchidaceae* n. sp., type.

and some minute ones at sides of abdominal sternites; sternite 5 emarginate apically and transversely wrinkled on each side of emargination; pygidium granulate and pubescent. Legs fairly short; femora stout, fore femur nearly $1/2$ as broad as long; hind tarsal segment 1 = 2, much shorter than 3. Length 10 mm; breadth 2.3.

Male: Interantennal process fully $1/2$ as long as scape, slender, narrowly truncate apically. Length 9.2 mm; breadth 2.25.

Paratypes: Length 8.6–10 mm; breadth 2.2–2.4.

Holotype, ♀ (BISHOP 2964), Foret de Thy, 550 m, S New Caledonia, in *Gahnia* sp., 6 March 1960, Gressitt; allotype ♂, 9 paratypes, same data, except some in *Scleria*.

Differs from the species of *Torquispia* Uhmann in being much smaller, in having a stouter antennal scape, a much broader frontoclypeus and a less tuberculate prothorax.

Biology: This species is essentially a borer between the bases of the leaves in the short stem of sedges of the genera *Gahnia* and *Scleria*. The larva feeds with head downward, and the pupa is found in the same situation. The adults may be found there, or feeding on the under sides of leaves of the same plants, chewing straight lines between major veins.

Larva: Creamy white, pale testaceous on head and pronotal disc, ochraceous at end of abdomen, with concavity of caudal process paler and tubercles pitchy. Body fairly deep, not strongly flattened, slightly broadened posteriorly: Head about 1/2 as broad as body, about 7/10 as long as broad, evenly rounded at side, angularly emarginate at middle behind, with a median groove which becomes a deep fossa between middle and anterior margin, and surface finely reticulate; eyes 5 on each side, arranged in 2 vertical rows, 3 of row 1 distinctly black and those of row 2 only partly pigmented; antenna fairly stout, nearly as broad as long; some scattered fine hairs on anterior portion and anterior part of side, the hairs partly as long as antenna and partly shorter. Pronotum with major portion very pale ochraceous like most of head, with a median whitish stripe on anterior 2/3 of pigmented portion; surface minutely reticulate; thoracic spiracle barely larger than abdominal spiracles, slightly wider than high, ovate at opening; meso- and metanotum fairly short, fine granulose, and each with an arcuate groove across middle which is convex behind. Abdomen with segments 1-6 similar, each with an arcuate or subtransverse groove across dorsum which on basal segments is more sinuate and followed by a somewhat callous and shiny area; spiracles very short, a little more rounded than thoracic spiracle and somewhat oblique instead of vertical; segment 7 shorter, more distinctly granulose and becoming somewhat brownish toward posterior margin; segment 8 narrower than 7, with caudal process about 1/2 as wide as hind portion of body and consisting of a long stout structure about 1/3 again as long as broad, slightly tapering posteriorly and with arms curved inward and acute, leaving a subrounded emargination which is slightly broader than deep and about 1/3 as long as fork; upper surface of base and side of fork with numerous short stout tubercles; spiracle fairly large, subvertical, the opening more than twice as deep as wide. Length 13 mm; breadth 3.5.

Pupa: Pale creamy yellow, more testaceous on abdomen. Head with a short obtuse interantennal process and a pair of blunt supraocular processes which are slightly longer than broad, area between them flat; prothorax somewhat broader than long, narrowed anteriorly with anterolateral angle slightly protruding; disc fairly flat, feebly corrugated transversely along central portion and with a shallow depression on each side of middle; wing pads fairly smooth; mesonotum and metanotum with feeble transverse wrinkles. Abdomen slightly broadened behind middle, with spiracles longitudinally elliptical, gradually increasing in size to spiracle 5 and with 6 much larger than 5, and 7 about as large as 4; abdominal tergite 4 with 2 rows of reddish tubercles, one near anterior border and somewhat irregular and interrupted and the other near posterior margin and a little more regular and less interrupted; segment 8 obliquely narrowed and with caudal process about 1/3 as wide as widest portion of abdomen and consisting of a pair of nearly parallel-sid-

ed processes terminating in a subacute posteriorly-directed point and separated by a fairly regular deep emargination which is only slightly wider than deep, and with surface near base somewhat depressed and both transversely and longitudinally obliquely grooved; basal portion of segment with only a few minute tubercles. Abdominal sternite 4 with a central transverse group of distinct tubercles and with a few small tubercles at side near posterior margin. Length 9.5 mm; breadth 2.7.

HOSTS: *Gahnia* sp. near *G. vitiensis* Rendle ?; *Scleria* sp. (Cyperaceae).

DISTRIBUTION: New Caledonia (mountains near Noumea).

10. *Teretrispa orchidaceae* Gressitt, n. sp. Fig. 4, i.

Shiny black, elytron with 2 complete orange yellow stripes, one on interspace 2 and the other on external margin, and sutural margin briefly orange at extreme apex; distal antennal segments appearing golden brown because of pubescence; a small brownish spot near side of each abdominal sternite. Body glabrous except for whitish hairs on frontoclypeus, short golden brown pubescence on distal antennal segments and golden orange pubescence on tarsal pads and apices of tibiae.

Head about as long as broad, as wide at eyes as at neck; central portion suboblong, broader than long, very slightly narrowed anteriorly, with a median groove which is very deep at anterior margin, and surface convex in center and entirely coarsely rugose punctate; interantennal process $1/2$ as long as scape, rather stout, slightly rounded apically and medially concave above; frontoclypeus as broad as long, emarginate basally and subacute apically, with surface somewhat uneven and granulose-punctate. Antenna $1/3$ as long as body, slightly compressed and widened apically; scape large, $1/3$ again as long as broad; segment 2 much smaller, slightly longer than broad; 3rd $1.5\times$ as long as 2; 4 slightly shorter than 3; 5 barely longer than 4 and 6; 7 slightly longer than 3, stouter apically; 7 not quite as long as 6 and stouter basally; 9 slightly larger than 8; 10 slightly longer than 9; last $1/4$ longer than 10, blunt apically. Prothorax nearly as long as broad, subparallel-sided, slightly constricted near middle, with anterolateral angle obtuse and fairly distinct; anterior margin strongly convex; basal margin distinctly sinuate, projecting in center; basal angle slightly constricted and bearing a minute acute tooth; disc somewhat uneven, shiny, somewhat raised near anterior margin, with large irregularly spaced punctures, which are lacking on much of apical and central portions as well as near base, anterior to basal margin between middle and side, and near anterolateral process. Scutellum fairly broad, wider at middle than at base, rounded-obtuse apically. Elytron just over $1/5$ as broad as long, subparallel anteriorly and distinctly broadened from anterior to middle and widest somewhat behind middle, then narrowed and briefly emarginate-truncate apically; disc with large subequal punctures in 7 rows on humerus, 6 rows after basal $1/6$, 7 rows after middle, and 8 or 9 rows behind middle and with interspace 2 very broad and strongly swollen, other interspaces slightly raised posteriorly, interspaces 3 and 4 somewhat raised from base onward. Ventral surfaces shiny and minutely punctured, a few larger punctures at side of thorax and some depressions at sides of abdominal sternites; sternite 5 large, feebly emarginate apically and pubescent near apex. Legs stout; hind femur reaching to middle of sternite 2; hind tarsus with segment 3 slightly longer than 1 or 2. Length 8.6 mm; breadth 2.5.

Holotype ♂ ? (Institut Français d' Océanie), Montagne des Sources, New Caledonia, on orchid, 13 March 1957, F. Cohic.

Differs from *gahniae* in being shorter, more broadened posteriorly, more contrastingly colored, with interantennal process stouter, head and pronotum more grossly punctured, the latter more sparsely punctured, and elytron with interspace 2 more strongly cristate and with punctures larger and fewer in number; the prothorax is also more parallel-sided and narrower at base.

HOST: Wild orchid.

DISTRIBUTION: New Caledonia (SE part, S side of mountains).

Genus *Torquispa* Uhmann

Torquispa Uhmann, 1954, Inst. R. Sci. Nat. Belgique, Bull. 30 (38): 1 (type: *T. vittigera* Uhm.; New Caledonia).

This genus is known only from New Caledonia. The host plants are not known.

KEY TO SPECIES OF TORQUISPA

- Shiny yellowish brown with paler elytral carina; interantennal process acute, with tapering groove; elytron with a strong carina following puncture-row 2; length 18.5-19 mm **vittigera**
- Shiny black; interantennal process blunt, with groove widest in middle; elytron without a strong carina starting from base following puncture-row 2; length 16 mm **caledoniae**

11. *Torquispa vittigera* Uhmann

Torquispa vittigera Uhmann, 1954, Inst. R. Sci. Nat. Belgique, Bull. 30 (38): 2, figs. 1-3 (Ouvrail, New Caledonia; type in Inst. R. Sci. Nat., Bruxelles).

According to Dr. Cohic, the type locality for this and the next species should undoubtedly be Bourail, a town in the lowlands on the SW side, near center of the island.

DISTRIBUTION: New Caledonia (Bourail ?).

12. *Torquispa caledoniae* Uhmann

Torquispa caledoniae Uhmann, 1954, Inst. R. Sci. Nat. Belgique, Bull. 30 (38): 6, figs. 4, 5 (Ourail, New Caledonia; type in Inst. R. Sci. Nat., Bruxelles).

DISTRIBUTION: New Caledonia (Bourail ?).

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