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APHROPHORINAE OF THE SOLOMON ISLANDS (RHYNCHOTA: HOMOPTERA: CERCOPIDAE)[1,2]

By **K. G. A. Hamilton**[3]

Abstract. The Aphrophorinae of the Solomon Is are keyed, and 25 new species are described: 2 in *Handschinia,* 8 in *Interocrea,* 1 in *Lallemandana,* and 14 in *Liorhina.* One new generic synonymy and 3 new specific synonymies are presented: *Eoptyelus* = *Amarusa*; *Cloviana fasciata* = *Clovia recta*; *Cloviana siotana* = *Clovia lugubris* and *Iophosa malaupainana* = *I. acuta.* The 50 recognized species are placed in 5 genera, with 18 new combinations.

The spittlebug fauna of the Solomon Is forms a link between that of New Guinea and the Bismarck Archipelago on the one hand, and with the faunas of New Caledonia, the New Hebrides (Vanuatu) and Polynesia on the other. It is rich in species, although only about ½ the known species have been described, in separate papers by Distant (1911), Jacobi (1921), Van Duzee (1940), Lallemand (1935, 1940, 1946, 1956) and Lallemand & Synave (1955). No comprehensive treatment of the Solomon Is fauna is available. The present work provides an up-to-date classification of the most complex group in the Cercopidae, the subfamily Aphrophorinae.

All types are deposited in the Bishop Museum, Honolulu, Hawaii (BISHOP), except for some paratypes in the Canadian National Collection, Ottawa (CNC), as noted.

FAUNAL ELEMENTS

Handschinia Lallemand is the only aphrophorine genus endemic to the Solomon Is. Four other genera are represented there. Two genera (*Interocrea* Walker and *Liorhina* Stål) are widespread throughout Oceania; a third (*Amarusa* Walker) is an Indonesian-Malayan genus that enters the Solomon Is by way of New Guinea; and the fourth (*Lallemandana* China & Myers) is a Polynesian genus with a single primitive representative on the outer Solomon Is.

The island faunas of the Solomons show a high degree of endemic speciation (FIG. 48). Only 7 of the 50 species are known to inhabit more than 3 islands, and only 3 of these inhabit more than 5 islands. No obviously similar faunas are apparent from tabulation of the species on each island (FIG. 48). However, the relationships among

1. Based on material in the Bishop Museum, Honolulu, Hawaii. A revision of the genera of the Aphrophorinae and illustrations of the male genitalia of the species described here will be published in a Memoir of the Entomological Society of Canada.
2. Material examined is the result of fieldwork supported by grants to Bishop Museum from the U.S. National Science Foundation (G-2127, G-4774, GB 518) and the U.S. Army Medical Research & Development Command (DA-MD-49-193-62-G65) and by a grant to J. L. Gressitt from the J. S. Guggenheim Foundation (1955–56).
3. Biosystematics Research Institute, Agriculture Canada, Ottawa, Canada.

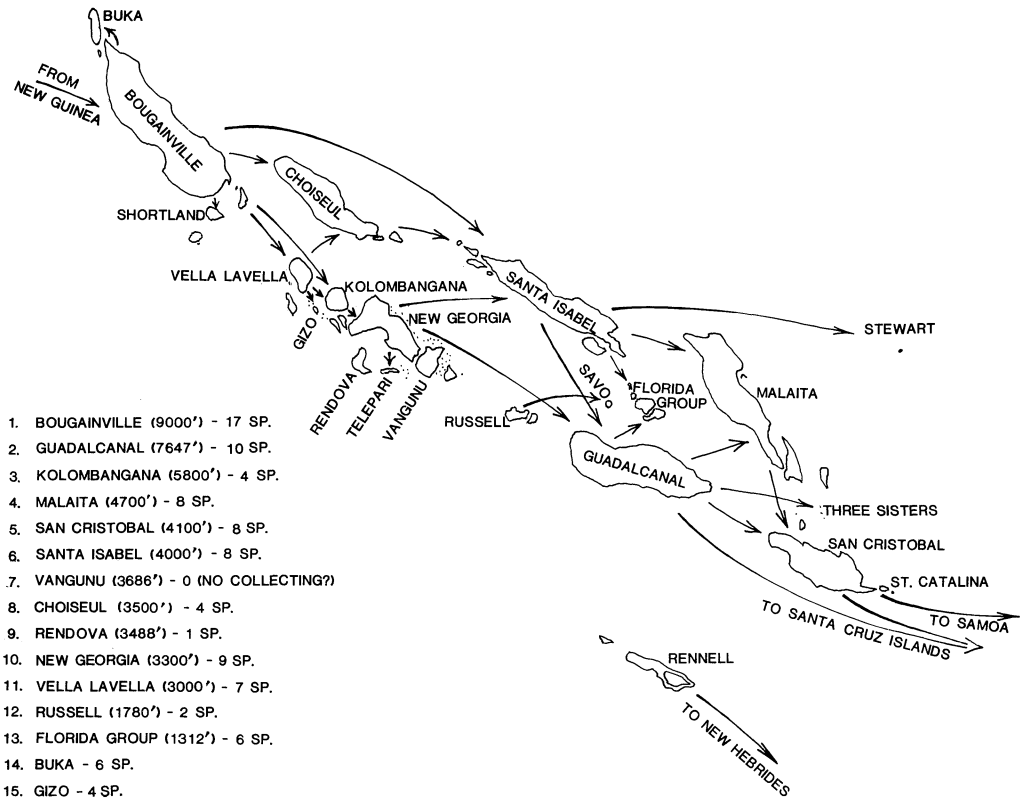

FIG. 1. Dispersal routes of aphrophorine species in the Solomons, and the number of species found on each island, ranked by highest elevation (elevations below 1000′ not indicated).

the faunas can be fairly simply expressed as distribution routes from one island to another (FIG. 1). The general trend appears to be from the northwest (New Guinea and the Bismarcks) to the southeast (New Hebrides and Santa Cruz Is), probably following the direction of cyclonic winds.

The number of species on each island is roughly correlated with the elevation of the island (FIG. 1). Exceptions occur when a low island is closely adjacent to a high one, giving the low island a larger number of species than would be expected. Vangunu and Kolombangana have much smaller faunas than expected, but this may be due in part to the general lack of collecting in these islands.

SYSTEMATICS

The genera and species of the Aphrophorinae from the Solomon Is may be distinguished by the following key. Descriptions of the genera and new species follow.

KEY TO THE APHROPHORINAE OF THE SOLOMON IS

1. Front legs noticeably elongate; when extended forwards, fore femora extend beyond apex of head ..... *Handschinia* ... 46
   Front legs not noticeably elongate; when extended forwards, fore femora do not extend beyond apex of head 2
2 (1). Crown of head short, less than ½ length of pronotum on midline ... (Bougainville, Santa Isabel, Guadalcanal, San Cristobal) ..... **Amarusa sordida, n. comb.**
   Crown of head longer, more than ½ length of pronotum on midline 3
3 (2). Tegmina with numerous fuscous spots, *or* crown of head longer than wide (FIG. 2–13) ..... *Interocrea* ... 36
   Tegmina unicolorous, or with yellow bars or dashes (FIG. 18–47), without fuscous spots; crown of head not longer than wide 4
4 (3). Outer anteapical cell of tegmen defined by carinate veins, its width 2× that of inner anteapical cell ... (San Cristobal) ..... **Lallemandana solomonensis, n. sp.**
   Outer anteapical cell of tegmen not defined by carinate veins, its width subequal to that of inner anteapical cell ..... *Liorhina* ... 5
5 (4). Body and tegmina entirely yellow ... (Guadalcanal, San Cristobal) ..... **Liorhina flava, n. sp.**
   Body and tegmina distinctly patterned with black or brown 6
6 (5). Base of clavus (before apex of scutellum when wings folded) with a yellow patch or streak (FIG. 42–45) 31
   Base of clavus entirely dark (FIG. 38–41) 7
7 (6). Crown and pronotum entirely dark (FIG. 18–20) 25
   Crown and pronotum with transverse yellow lines (FIG. 21–23) 8
8 (7). Disc of apical ½ of tegmen with a yellow patch, streak or spot (FIG. 36–39) 14
   Disc of apical ½ of tegmen entirely dark (FIG. 30, 35) (may have marginal yellow lines, as in FIG. 40, 41) 9
9 (8). Yellow lines on disc of tegmina oblique, together forming a broken M-shaped mark (FIG. 41) ... (Shortland, Buka, Bougainville, New Georgia) ..... **Liorhina obliqua, n. comb.**
   Yellow lines on disc of tegmina transverse (FIG. 29, 35) or evenly curving towards apices (FIG. 34, 40) 10
10 (9). Anterior margin of pronotum, and often entire dorsum, black (FIG. 29–30) 13
   Anterior margin of pronotum and most of dorsum brown (FIG. 34–35) 11
11 (10). Costal margin of tegmen marked with yellow on apical ½ (FIG. 40) ... (Vella Lavella, Gizo, Kolombangara, New Georgia, Rendova, Florida grp., Guadalcanal) ..... **Liorhina nggelana, n. comb.**
   Costal margin of tegmen entirely dark on apical ½ (FIG. 34–35) 12
12 (11). Yellow line on tegmen slender and parallel-margined or broken (FIG. 34–35) ... (Bougainville, Santa Isabel, Malaita) ..... **Liorhina nigripes, n. sp.**
   Yellow line on tegmen broad, with irregular margins (FIG. 47) ... (Bougainville) ..... **Liorhina undulans, n. sp.**
13 (10). Costal margin of tegmen black without yellow markings (FIG. 30) ... (Gizo, Kolombangara, New Georgia, Guadalcanal, Three Sisters) ..... **Liorhina acuta, n. comb.**
   Costal margin of tegmen marked with 1 or more yellow spots (FIG. 29) ... (Buka, Bougainville) ..... **Liorhina interrupta, n. sp.**
14 (8). Tegmina mostly black, with minute pale spots or fine streaks near tips (FIG. 23, 28, 36) .. 23
   Tegmina boldly patterned in yellow, or with extensive brown areas; yellow markings at tips extensive, forming long streaks or large spots (FIG. 37–39) 15

15 (14). Apex of tegmen marked with 2 long yellow streaks (sometimes connected at end to form a V-shaped mark) extending an equal distance basad (FIG. 27, 33, 39) 22
Apex of tegmen marked with a single yellow streak, or 2 spots or streaks in a row, the outer extending furthest basad (FIG. 26, 32, 38) 16
16 (15). Pale markings across middle of tegmina forming oblique bands (FIG. 21, 22) 20
Pale markings across middle of tegmina forming a transverse band (FIG. 31, 32) 17
17 (16). Tegmina marked with a transverse row of white spots (FIG. 31) . . . (Buka) ..... **Liorhina albimaculata, n. sp.**
Tegmina marked with a transverse yellow band (FIG. 32) 18
18 (17). Transverse yellow band of tegmina ending before costa (FIG. 26) . . . (Vella Lavella, New Georgia, Telepari) ..... **Liorhina trimaculata, n. comb.**
Transverse yellow band on tegmina ending at costa (FIG. 32, 38) 19
19 (18). Dark bands of crown wider than pale bands, the apical 2 connected around a short pale spot (FIG. 32) . . . (New Georgia, Santa Isabel) ..... **Liorhina setosa, n. sp.**
Pale bands of crown usually wider than dark bands, the apical 2 connected around a short dark spot (FIG. 38) . . . (Bougainville) ..... **Liorhina recta, n. comb.**
20 (16). Apex of tegmen marked with 2 yellow streaks (FIG. 46) . . . (San Cristobal) ..... **Liorhina crockeri, n. comb.**
Apex of tegmen marked with a single yellow streak (FIG. 21, 22) 21
21 (20). Yellow band across middle of tegmen tapering out before it meets costa (FIG. 22) . . . (Guadalcanal, San Cristobal, Santa Catalina) ..... **Liorhina fraterna, n. comb.**
Yellow band across middle of tegmen meeting costa (FIG. 21) . . . (Vella Lavella) ..... **Liorhina parassona, n. comb.**
22 (15). Yellow band across middle of tegmen nearly transverse (FIG. 39) . . . (Malaita) ..... **Liorhina sera, n. comb.**
Yellow band across middle of tegmen distinctly curving toward apex (FIG. 27, 33) . . . (Buka, Bougainville) ..... **Liorhina imitans, n. comb.**
23 (14). Tegmina marked with small yellow spots (FIG. 36) . . . (Florida grp.) ..... **Liorhina floridana, n. comb.**
Tegmina marked with yellow lines (FIG. 23, 28) 24
24 (23). Yellow lines on tegmina forming oblique streaks near middle and apices (FIG. 28) . . . (Vella Lavella, Guadalcanal) ..... **Liorhina apicistriata, n. sp.**
Yellow lines on tegmina forming a transverse band across middle (FIG. 23) . . . (Santa Isabel, Guadalcanal, Stewart) ..... **Liorhina penniops, n. sp.**
25 (7). Tegmina black, unmarked . . . (Savo) ..... **Liorhina savoana, n. comb.**
Tegmina marked with yellow spots or streaks 26
26 (25). Tegmina with continuous transverse yellow band across middle (FIG. 20) 30
Tegmina with row of 4 yellow spots across middle (FIG. 18, 19, 24, 25) 27
27 (26). Venter almost entirely black, with at most a fine yellow line across face and propleura ... 29
Venter largely orange-brown, with broad yellow band across all thoracic pleura, the latter bordered with black 28
28 (27). Base of costa pale (FIG. 25) . . . (Guadalcanal) ..... **Liorhina transpuncta, n. sp.**
Base of costa black (FIG. 19) . . . (Bougainville, Choiseul, Gizo, Santa Isabel) ..... **Liorhina froggatti, n. comb.**
29 (27). Face and apical ½ of tegmina without yellow markings (FIG. 24) . . . (Russell) ..... **Liorhina nigra, n. comb.**
Face with narrow yellow band; tegmina with fine yellow apical spots (FIG. 18) . . . (Malaita) ..... **Liorhina ovata, n. sp.**
30 (26). Apex of tegmen with 2 yellow spots (FIG. 20) . . . (Santa Isabel, Florida grp., Malaita) ..... **Liorhina lugubris, n. comb.**
Apex of tegmen unmarked ..... **Liorhina limbata, n. comb.**
31 (6). Tegmina spotted with yellow (FIG. 37, 42); the spots sometimes running together, forming an irregular figure 34
Tegmina with transverse yellow band across middle (FIG. 43–45) 32

32 (31). Transverse yellow band of tegmina zigzag (FIG. 43) . . . (Choiseul) . . . . . **Liorhina splendida, n. sp.**
Transverse yellow band of tegmina straight (FIG. 44–45) 33
33 (32). Pronotum and scutellum trifasciate with black and yellow (FIG. 44) . . . (Vella Lavella, Guadalcanal) . . . . . **Liorhina surana, n. comb.**
Pronotum and scutellum brown, with 1 yellow band across anterior margin of pronotum (FIG. 45) . . . (Kolombangara, New Georgia) . . . . . **Liorhina diadema, n. sp.**
34 (31). Tegmina heavily spotted with yellow (FIG. 42) . . . (Bougainville) . . . **Liorhina leopardus, n. sp.**
Tegmina with only a few spots (FIG. 37) 35
35 (34). Pronotum brown without yellow markings (FIG. 25) . . . (Rennell) . . . . . **Liorhina lallemandana, n. comb.**
Pronotum brown or black, banded with yellow (FIG. 37) . . . (Malaita) . . . . . **Liorhina pubescens, n. sp.**
36 (3). Tawny, unmarked (except for brown face and minute scattered fuscous freckles on tegmina) (FIG. 5) . . . (Bougainville) . . . . . **Interocrea immaculata, n. sp.**
Brown or black, usually mottled with tawny (FIG. 2–4) 37
37 (36). Venter (including face and legs) entirely black 43
Venter black or brown, with large pale areas on face and legs 38
38 (37). Crown of head fasciate, with alternating dark and pale lines (FIG. 9, 12) 41
Crown of head maculate with dark spots, with at most a pale median line (FIG. 8, 13) 39
39 (38). Tegmina rufous; venter mostly black, with 2 bold yellow patches on face sharply contrasting with rest of venter . . . (Bougainville) . . . . . **Interocrea bilutea, n. sp.**
Tegmina tawny; venter mostly stramineous or tawny, with dark markings throughout; pale areas on face not contrasting with rest of venter 40
40 (39). Crown of head $^1/_5$ longer (1.2) than its interocular width (FIG. 8) . . . (Shortland, Bougainville, Vella Lavella, Kolombangara, New Georgia) . . . . . **Interocrea specialis, n. comb.**
Crown about as long (0.94–1.07) as its interocular width (FIG. 4) . . . (Buka, Bougainville, Vella Lavella, Gizo, New Georgia, Santa Isabel, Florida grp., Guadalcanal, San Cristobal, Malaita) . . . . . **Interocrea geminata, n. comb.**
41 (38). Fasciae of crown transverse (FIG. 9) . . . (Russell) . . . . . **Interocrea transfasciata, n. sp.**
Fasciae of crown longitudinal (FIG. 12) 42
42 (41). Crown of head longer than its interocular width; tegmina nearly straight (FIG. 12) . . . (San Cristobal, Malaita) . . . . . **Interocrea insignis, n. comb.**
Crown shorter than its interocular width; tegmina strongly inflated discally (FIG. 11) . . . (San Cristobal) . . . . . **Interocrea bomba, n. sp.**
43 (37). Dorsum irrorate with tawny spots or patches (FIG. 3, 7) 45
Dorsum entirely brown or blackish brown (FIG. 2, 6) 44
44 (43). Frons produced as a hornlike projection; crown of head thus longer than its width before eyes (FIG. 10) . . . (New Georgia) . . . . . **Interocrea philagra, n. sp.**
Frons scarcely produced, not hornlike; crown shorter than its width before eyes (FIG. 2, 6) . . . (Buka, Bougainville, Choiseul) . . . . . **Interocrea brunnea, n. sp.**
45 (43). Dorsum black, irrorate with tawny spots (FIG. 3) . . . (Florida grp.) . . . . . **Interocrea nigra, n. sp.**
Dorsum brown, with extensive tawny areas; apices of tegmina gray (FIG. 7) . . . (Santa Isabel) . . . . . **Interocrea griseapicata, n. sp.**
46 (1). Yellow; apex of head pointed, black-margined (FIG. 14) . . . (Bougainville) . . . . . **Handschinia salomonis**
Brown; apex of head rounded, concolorous (FIG. 15–17) 47
47 (46). Beak extending to base of hind femora . . . (Florida grp.) . . . . **Handschinia peleana, n. comb.**
Beak extending to base of hind coxae 48
48 (47). Uniformly brown; robust; crown ½ as long as pronotum on midline (FIG. 17) . . . (Bougainville) . . . . . **Handschinia orca, n. sp.**
Patterned with yellow on crown, base of scutellum (FIG. 15, 16) and propleura; more slender; crown $^3/_5$ as long as pronotum on midline 49

49 (48). Head as wide as pronotum; pronotum almost entirely black, without yellow lines (FIG. 16) ... (Choiseul) ..... **Handschinia melanotum, n. sp.**
Head distinctly narrower than pronotum; pronotum brown, with yellow lines (FIG. 15) ... (Shortland, Bougainville) ..... **Handschinia fusca, n. comb.**

Genus **Amarusa** Walker

Amarusa Walker, 1857: 166. Type-species by monotypy: *A. picea* Walker, 1857.
Eoptyelus Jacobi, 1921: 8. **New synonymy.** Type-species by original designation: *E. sordidus* Jacobi, 1921.

Not dorsoventrally compressed; head slightly narrower than pronotum, crown shorter than ½ (0.4) length of pronotum on midline; tegmina slender, distinctly hairy, veins inconspicuous, forming 3 anteapical cells of similar width; legs short, robust; penis shaft tubular, straight, apex clubbed and pendulous; style apices chelate.

The synonymy of *Eoptyelus* with *Amarusa* is based on comparison of specimens of *picea* with Jacobi's (1921) description and figure of *sordida.*

Solomonian species. Amarusa sordida (Jacobi), **new combination.** This species was described by Jacobi (1921) from New Guinea and Buru. I have not examined specimens from those locations; hence the identification of the Solomonian species as *sordida* is tentative.

Genus **Handschinia** Lallemand

Handschinia Lallemand, 1935: 678. Type-species by monotypy: *H. salomonis* Lallemand, 1935.

Not dorsoventrally compressed; head as wide as pronotum to distinctly narrower, crown about ½ (0.50–0.66) length of pronotum on midline; tegmina robust, strongly pitted, veins inconspicuous, forming 3 anteapical cells of similar width; legs long and slender, fore femora extending beyond apex of head; penis shaft tubular, straight, unarmed; style apices furcate.

Solomonian species. Handschinia fusca (Lallemand), **new combination,** *H. peleana* (Lallemand), **new combination,** *H. salomonis* Lallemand, and 2 new species, described below.

Handschinia melanotum Hamilton, **new species** FIG. 16

♂ unknown; ♀, 10.9 mm. Red-brown, darker on propleura and fore coxae, marked with yellow spots on pro- and mesepimera, yellow dashes on crown and base of scutellum and with black on apices of leg segments, claws, antennal ledges, all but anterior margin of pronotum, and broad patches on tegmina (FIG. 16). Head as wide as pronotum; crown broad, 2× as wide as long, moderately long, $^3/_5$ as long as pronotum on midline; tegmina slender, 0.39 as wide as long.

Holotype ♀ (BISHOP 11,764), CHOISEUL: Malangona, 10 m, 2.III.1964, P. Shanahan.

Remarks. Adults of this species are immediately distinguishable from their congeners by the head being as wide as the pronotum, and by the comparatively narrow tegmina. Their color pattern is similar to that of dark specimens of *fusca,* with the exception of the black, unmarked pronotum.

Handschinia orca Hamilton, **new species** FIG. 17

♂ unknown; ♀, 10.8–10.9 mm. Brown, unmarked, with slightly darker and paler areas on tegmina (FIG. 17). Head distinctly narrower than pronotum; crown narrow, ⅔ as wide as long, ½ as long as pronotum on midline; tegmina broad, 0.42 as wide as long.

Holotype ♀ (BISHOP 11,765), PNG: BOUGAINVILLE (NE): Mutahi, 18 km SE of Tinputz, 700 m, 15–21.III.1968, R. Straatman. Paratype: 1♀, BOUGAINVILLE: Kukugai Vill, 150 m, XII.1960, W.W. Brandt.

Remarks. The robust form, short head and even brown color will distinguish the adults of this species from those of its congeners.

Genus **Interocrea** Walker

Interocrea Walker, 1870: 328. Type-species by monotypy: *I. nigripes* Walker, 1870.

More or less dorsoventrally compressed; head narrower than pronotum, crown rounded or pointed, usually longer (0.83–1.36) than pronotum on midline; tegmina slender to robust, pubescent, usually maculate with fuscous, veins inconspicuous, forming 3 anteapical cells of similar width; fore legs distinctly longer than hind legs, but not with femora extending beyond apex of head; penis shaft tubular, straight, unarmed; style apices bi- or tridentate.

Solomonian species. Interocrea geminata (Jacobi), **new combination,** *I. insignis* (Lallemand & Synave), **new combination,** *I. specialis* (Jacobi), **new combination,** and 8 new species, described below.

Interocrea bilutea Hamilton, **new species** FIG. 13

♂ unknown; ♀, 6.0–6.1 mm. Venter black, marked with broad contrasting yellow patches on frons and clypellus, small ochre spots on pleura, ochreous coxae, and rufous outer edges of femora; dorsum tawny, suffused with rufous on tegmina, heavily punctate with fuscous throughout, marked with pale median line on crown and 3 fuscous transverse bands on tegmina. Crown pointed, as long as pronotum on midline; tegmina slender, 0.41 as wide as long.

Holotype ♀ (BISHOP 11,766), PNG: BOUGAINVILLE: Mt Balbi, 2000–2400 m, 1–7.III.1968, Tawi. Paratype: 1♀, BOUGAINVILLE: Kokure, 690 m, 15.VI.1956, E.J. Ford, Jr.

Remarks. The striking color of the venter immediately distinguishes adults of this species from those of all other Solomonian spittlebugs.

Interocrea bomba Hamilton, **new species** FIG. 11

♂, 4.8–4.9 mm; ♀, 5.2 mm. Venter black, marked with tawny areas on frons, clypellus, base of beak, bases and apices of femora, outer faces of tibiae, spots on pleura, and entire metapleura; dorsum brown, crown longitudinally striped with paler brown, body and anterior ⅔ of tegmina heavily mottled with tawny around fuscous points, disc of tegminal apices fading to gray (FIG. 11). Crown pointed, slightly shorter than pronotum on midline in ♂, in ♀ slightly longer; tegmina robust and convex, 0.46 as wide as long. Penis shaft sinuate; style apices long, tridentate, the middle tooth very wide.

Holotype ♂ (BISHOP 11,767), MALAITA (NW): Dala, 5.VI.1964, R. Straatman. 2 paratypes: MALAITA: 1♂, E of Kwalo (E of Auki), 350 m, 29.IX.1957, J.L. Gressitt; 1♀, Auki, 2–20 m, 3.X.1957, Gressitt.

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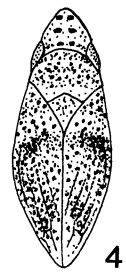

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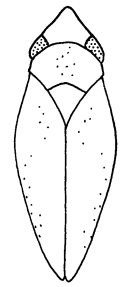

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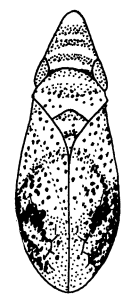

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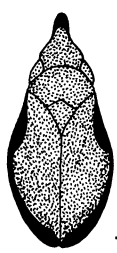

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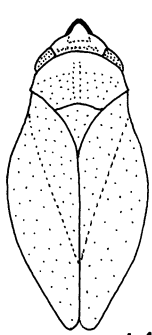
Interocrea



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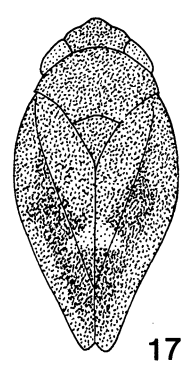


17

Handschinia

Remarks. Adults of *bomba* resemble those of *nigra,* n. sp. and *griseapicata,* n. sp. but differ in having extensive pale areas on the venter; males also are distinguished by the sinuate penis shaft and large stylar tooth.

Interocrea brunnea Hamilton, **new species** FIG. 2, 6

♂, 4.2–4.9 mm; ♀, 4.4–4.5 mm. Venter black, dorsum blackish brown to red-brown, costa black; without pale markings (FIG. 2, 6). Crown ending in small rounded process, distinctly longer (1.10) than pronotum on midline; tegmina robust and convex, 0.50 as wide as long. Penis shaft sinuate; style apices very slender, bidentate, basal tooth larger and broader than other tooth.

Holotype ♂ (BISHOP 11,768), PNG: BOUGAINVILLE: Torpanos, 6 km W of Tinputz, 200 m, 22–29.II.1968, R. Straatman. 24 paratypes: BOUGAINVILLE: 1♂,1♀, Simba Mission, 29.VI.1956, E.J. Ford, Jr.; 1♀, Kokure, nr Crown Prince Range, 900 m, 9.VI.1956, J.L. Gressitt; 1♂,2♀, same locality, 690 m, 10.VI.1956, Ford; 1♂, same data, 14.VI.1956; 1♀, same data, 15.VI.1956, Gressitt; 1♂, Kukugai Vill, 150 m, XII.1960, W.W. Brandt; 1♂, Tokinoitu, 20 m, 2.VI.1956, Gressitt; 1♂, Mosigeta, 25 m, 3.VI.1956, Ford; 1♀, Boku, 50 m, 5.VI.1956, Gressitt; CHOISEUL: 1♂, Malangona, 10 m, 5.III.1964, P. Shanahan; PNG: BUKA: 11♂, Gagan, 40 m, 8–11.XII.1959, T.C. Maa. 2 paratypes in CNC.

Remarks. Adults of *brunnea* resemble those of *philagra,* n. sp. but differ in the shorter head; the males also are distinguished by the slender style apices armed with small, sharp teeth.

Interocrea griseapicata Hamilton, **new species** FIG. 7

♂, 3.8–4.2 mm; ♀, 4.4–4.8 mm. Venter black, base of beak and hind coxae sometimes paler, to stramineous; dorsum brown, marked as in *bomba,* but with coronal stripes less well defined and not diverging apically (FIG. 7). Crown pointed, slightly longer than pronotum on midline; tegmina robust and convex, 0.45–0.48 as wide as long. Penis shaft straight, slightly constricted preapically; style apices short, tridentate, teeth of similar size and sharpness.

Holotype ♂ (BISHOP 11,769), SANTA YSABEL (sic): Ovi Vill, nr Tatamba, 16.IX.1964, swept, R. Straatman. 5 paratypes: SANTA ISABEL: 1♂,1♀, same data as holotype; 1♂,1♀, Sukapisu, 900 m, 18.VI.1960, C.W. O'Brien; 1♀, Hageulu, 400–650 m, 13.IX.1964, R. Straatman.

Remarks. Adults of *griseapicata* resemble those of *nigra,* n. sp., from which they may be distinguished by the paler color and more extensive tawny markings; the males also are distinguished by the longer apical stylar tooth.

←

FIG. 2–17. **2–13.** Adult color patterns of *Interocrea* spp.: **2,6,** *brunnea*; **3,** *nigra*; **4,** *geminata*; **5,** *immaculata*; **7,** *griseapicata*; **8,** *specialis*; **9,** *transfasciata*; **10,** *philagra*; **11,** *bomba*; **12,** *insignis*; **13,** *bilutea.* **14–17.** Adult color patterns of *Handschinia* spp.: **14,** *salomonis*; **15,** *fusca*; **16,** *melanotum*; **17,** *orca.*

Interocrea immaculata Hamilton, **new species** FIG. 5

♂ unknown; ♀, 7.5 mm. Ochre, darker on venter, apices of leg segments, claws and narrow band below coronal margin fuscous, the latter margined with narrow yellow line; tegmina with a few minute fuscous speckles (FIG. 5). Crown pointed, distinctly shorter (0.83) than pronotum on midline; tegmina slender, 0.32 as wide as long.

Holotype ♀ (BISHOP 11,770), PNG: BOUGAINVILLE: Trapanas, 200 m, 27.II.1968, Tawi.

Remarks. Adults of *immaculata* may be immediately distinguished from all other Solomonian spittlebugs by the color and by the short, pointed head.

Interocrea nigra Hamilton, **new species** FIG. 3

♂, 4.4–4.5 mm; ♀, 4.4–4.8 mm. Black, paler to tawny on base of beak and hind coxae, dorsum flecked with tawny spots, as is anterior ½ of tegmina; posterior ½ of tegmina unmarked, or with obscure brown vermiculate spots (FIG. 3). Crown pointed, distinctly longer (1.10) than pronotum on midline; tegmina robust and convex, 0.47 as wide as long. Penis shaft straight; style apices short, tridentate, apical tooth short and blunt, others longer and recurved to sharp tips.

Holotype ♂ (BISHOP 11,771), FLORIDA GROUP: [BIG] NGGELA: Haleta, 0–100 m, 6.X.1964, sago stump, R. Straatman. 5 paratypes: FLORIDA GROUP: 3♀, same locality as holotype, 9.X.1964, R. Straatman; 1♀, Takopekope, 12.IX.1960, C.W. O'Brien; SMALL NGGELA: 1♂, Dende, 17.IX.1960, O'Brien.

Remarks. Adults of *nigra* may be distinguished from those of *griseapicata,* n. sp. by the shape of the stylar teeth and the darker color of the dorsum, and from those of *bomba,* n. sp. by lacking the tawny mottling of the venter. Males of *nigra* also may be distinguished by the shorter style apices.

Interocrea philagra Hamilton, **new species** FIG. 10

♂, 4.9 mm; ♀ unknown. Venter black, paler on base of beak and hind coxae; dorsum red-brown, costa black (FIG. 10). Crown produced as a hornlike projection, superficially similar to those of *Philagra* spp., crown thus much longer (1.36) than pronotum on midline; tegmina robust and convex, 0.44 as wide as long. Penis shaft sinuate; style apices very short, with 1 narrow ventroapical tooth and 2 reflexed dorsal teeth, the 2nd wider and blunter than 1st.

Holotype ♂ (BISHOP 11,772), NEW GEORGIA: Munda, 15–30 m, 14–15.VII.1959, J.L. Gressitt.

Remarks. The hornlike projection of the frons and the peculiar style apices are unique for Solomonian spittlebugs.

Interocrea transfasciata Hamilton, **new species** FIG. 9

♂ unknown; ♀, 6.4 mm. Venter dark brown, paler at base of beak, apices and muscle impressions of clypellus and frons, spots on pleura, and on hind coxae; outer faces of fore and middle legs yellow; crown and pronotum transversely banded alternately with red-brown and tawny; scutellum and apices of tegmina tawny; posterior margin of pronotum and basal ⅔ of tegmina greenish white; entire dorsum except crown punctate with fuscous, forming irregular brown patches and bands on tegmina (FIG. 9). Crown conical, much longer (1.33) than pronotum on midline; tegmina robust and somewhat convex, 0.43 as wide as long.

Holotype ♀ (BISHOP 11,773), RUSSELL IS: BANIKA I: Yandina, 100 m, 24.VII.1964, R. Straatman.

Remarks. The transversely banded crown and pronotum resemble those of *Liorhina* spp., but the very long head and punctate tegmina definitely demonstrate that this species belongs to *Interocrea.*

Genus **Lallemandana** China & Myers

Lallemandia China, 1933: 39. Type-species by original designation: *Cicada fenestrata* Fabr., 1775.
Lallemandana China & Myers, 1934: 466, new name for *Lallemandia* China, 1933, nec Funkhouser, 1922.

Dorsoventrally compressed; head narrower than pronotum, crown parabolically pointed, almost as long as pronotum on midline; tegmina slender, finely setose, veins obscure on disc, usually carinate near apex, forming 3 anteapical cells of which the outer is distinctly the widest; legs as in *Interocrea*; penis shaft slender, curved dorsad (sometimes recurved at tip), unarmed or with 1 to 3 small spines at tip; style apices slender, hooked dorsad.

Solomonian species. One new species, described below.

Lallemandana solomonensis Hamilton, **new species**

♂, 9.7 mm; ♀ unknown. Venter tawny brown, dark brown on midline of face and apices of beak and leg segments; dorsum including tegmina dark brown, marked with 2 interrupted transverse yellow bands on crown and 2 more on pronotum; tegmina marked with curved whitish lines on costal plaque, apices, and across clavi (the latter conjoined when tegmina folded). Crown broadly rounded on anterior margin, slightly longer (0.60) than ½ of pronotum on midline. Penis shaft long, strongly sinuate, terminating in a tiny pair of spines.

Holotype ♂ (BISHOP 11,774), SAN CRISTOVAL (sic): Wugiroga, 9.VIII.1960, C.W. O'Brien.

Remarks. The color, and shape of the penis shaft, are distinctive.

Genus **Liorhina** Stål

Liorhina Stål, 1870: 722. Type-species by monotypy: *L. reflexa* Stål, 1870.

Not dorsoventrally compressed; head about as wide as pronotum, crown rounded, longer than ½ (0.75–1.00) length of pronotum on midline; tegmina robust, setose, veins inconspicuous, forming 3 anteapical cells of similar width; legs as in *Interocrea*; penis shaft slender to lamellate, straight or curved anteroventrad, unarmed; style apices tridentate to unidentate.

Solomonian species. Liorhina acuta (Lallemand) (=*malaupainana* Lallemand, **new synonymy**[4]), *L. crockeri* (Van Duzee), *L. floridana* (Lallemand), *L. fraterna* (Van Duzee), *L. froggatti* (Distant), *L. imitans* (Jacobi), *L. lallemandana* (Metcalf) (=*lineata* Lallemand & Synave, nec Schmidt), *L. limbata* (Lallemand), *L. lugubris* (Van Duzee) (=*siotana* Lallemand, **new synonymy**[5]), *L. nggelana* (Lallemand), *L. nigra* (Lallemand), *L. obliqua* (Lallemand), *L. parassona* (Lallemand), *L. recta* (Jacobi) (=*fasciata* Lallemand, **new synonymy**[5]), *L. savoana* (Lallemand), *L. sera* (Van Duzee), *L. surana*

4. Synonymy based on range of characters in specimens of *acuta* from New Georgia island group.
5. Synonymies based on color pattern and geographical distribution.

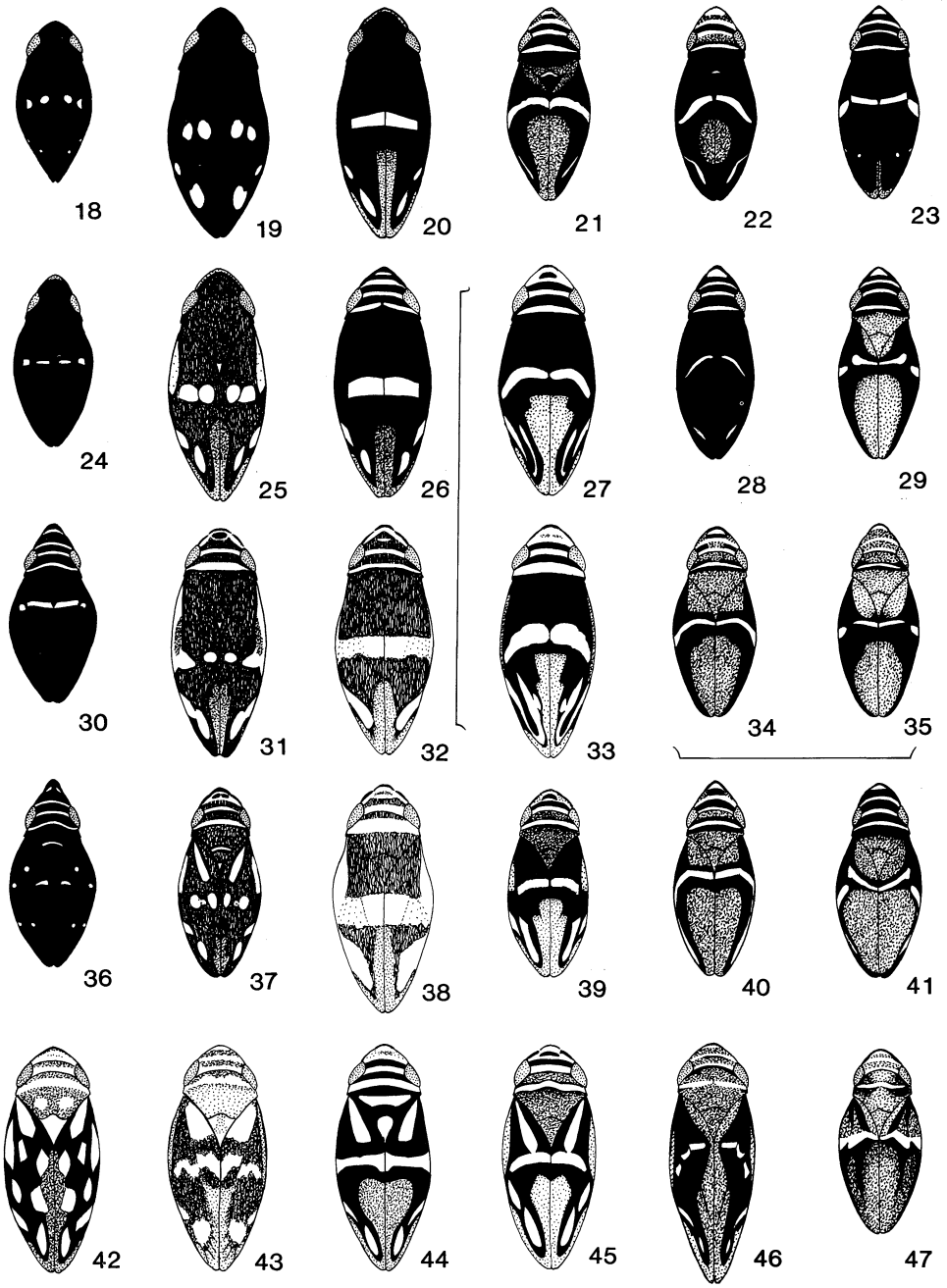


FIG. 18–47. Adult color pattern and variations (bracketed) of *Liorhina* spp.: **18,** *ovata*; **19,** *froggatti*; **20,** *lugubris*; **21,** *parassona*; **22,** *fraterna*; **23,** *penniops*; **24,** *nigra*; **25,** *transpuncta*; **26,** *trimaculata*; **27, 33,** *imitans*; **28,** *apicistriata*; **29,** *interrupta*; **30,** *acuta*; **31,** *albimaculata*; **32,** *setosa*; **34–35,** *nigripes*; **36,** *floridana*; **37,** *pubescens*; **38,** *recta*; **39,** *sera*; **40,** *nggelana*; **41,** *obliqua*; **42,** *leopardus*; **43,** *splendida*; **44,** *surana*; **45,** *diadema*; **46,** *crockeri*; **47,** *undulans*.

(Lallemand), *L. trimaculata* (Lallemand). All are **new combinations**. Fourteen new species are described below.

Liorhina albimaculata Hamilton, **new species** FIG. 31

♂ unknown; ♀, 9.9 mm. Venter yellow, except for orange-brown frons, brown abdomen and black tarsi; dorsum black, covered with fine yellow hairs giving a gray cast, marked with 4 narrow transverse yellow bands on crown and pronotum, ochreous-white patches at base of costal margins of tegmina, 4 whitish dashes forming a transverse band across middle of tegmina, and 4 more (in confluent pairs) forming oblique dashes at apices of tegmina (FIG. 31).

Holotype ♀ (BISHOP 11,775), PNG: BUKA: Gagan, 40 m, 15.VI.1956, J.L. Gressitt.

Remarks. Adults of *albimaculata* may be distinguished from those of *transpuncta,* n. sp. by the yellow bands on the crown and pronotum, by the white tegminal markings, and by the paler venter.

Liorhina apicistriata Hamilton, **new species** FIG. 28

♂, 6.6–7.0 mm; ♀, 6.7–9.3 mm. Black; coxae tawny; marked with fine yellow lines as follows: 1 pair of lateral stripes on venter, 3 transverse bands on crown and 1 on pronotum, and 2 pairs of oblique bands on tegmina (FIG. 28); the apical bands on the tegmina may meet the costal margin, but those across the middle do not. Style apices armed with small, straight dorsal tooth and large, recurved ventral tooth; posterior margin convex.

Holotype ♂ (BISHOP 11,776), GUADALCANAL: Honiara, 30.IV.1964, R. Straatman. 26 paratypes: GUADALCANAL: 4♀, same data as holotype except 22.IV.1964; 1♂,3♀, same data except 23.IV.1964; 3♀, same data except 27.IV.1964; 1♀, same data except 2.V.1964; 1♂, Tambalia, 35 km W of Honiara, 30 m, 20.V.1964, J. Sedlacek; 1♀, Tambalia, 22.V.1964, R. Straatman; 1♀, same data except 24.V.1964; 1♂,1♀, Tenaru Crk, 10–50 m, 14.V.1964, Straatman; 1♀, Tenaru Riv, 25 m, 15.IX.1957, J.L. Gressitt; 1♂, Poha Riv, 1–50 m, 6.X.1957, Gressitt; 2♀, Mt Austin, 300 m, 25.V.1964, Straatman; 1♀, Tenamba, 7.X.1957, Gressitt; 1♀, behind Tenamba, 2–15 m, 7.X.1957, [on] palm, Gressitt; 1♀, Betikama Riv, VIII.1960, W.W. Brandt; 1♀, Metanikau Riv (mouth), 19.V.1944, H.E. Milliron; VELLA LAVELLA: 1♀, Ulo Crater, 17.XII.1963, light trap, P. Shanahan. 2 paratypes in CNC.

Remarks. The color pattern of the dorsum of *apicistriata* resembles that of *fraterna,* but the pale markings are finer and the scutellum lacks a yellow band. Males of these species are also distinguished by the apices of the styles, which are convex in *apicistriata* and concave in *fraterna.* The male genitalia of *apicistriata* resemble those of *nigripes,* n. sp., *interrupta,* n. sp. and *obliqua,* but these latter 3 species are all characterized by transverse or M-shaped yellow tegminal bands rather than by oblique bands.

Liorhina diadema Hamilton, **new species** FIG. 45

♂, 9.1–9.7 mm; ♀, 10.2–10.8 mm. Venter orange-brown, except for brown abdomen and yellow band across upper part of face and upper ½ of pro- and mesopleura (often bordered below by fuscous), apical segment of beak fuscous, legs marked with yellow spot at apex of femur, infuscated at apex and sometimes on tarsi and outer face of tibia; dorsum deep red-brown, apical ½ of tegmina yellow-brown, marked with 4 narrow transverse bands on crown and pronotum, and 4 confluent yellow dashes in a zig-zag line on

each tegmen, the yellow markings bordered with black (FIG. 45). Male genitalia as in *froggatti* (see Lallemand 1956, Fig. 4D, 6A).

Holotype ♂ (BISHOP 11,777), NEW GEORGIA: Munda, 15–30 m, 14–15.VII.1959, J.L. Gressitt. 34 paratypes: NEW GEORGIA: 5♂,12♀, same data as holotype; 2♂,2♀, Munda, 1–30 m, 13.VII.1959, J.L. Gressitt; 2♀, same data, 15.VII.1959; 1♂,3♀, same data, 20.VII.1959; 1♂,3♀, same data, 21.VII.1959, T.C. Maa; KOLOMBANGARA: 1♀, Iriri, 100 m, 30.VI.1964, J. & M. Sedlacek; 1♀, same data, 2 m, 3.VII.1964. 2 paratypes in CNC.

Remarks. Adults of *diadema* may be distinguished from those of *surana* by the single yellow pronotal band, and from other Solomonian species of *Liorhina* by the oblique yellow dashes on the base of the clavi which meet the transverse yellow dashes on the middle of the tegmina.

Liorhina flava Hamilton, **new species**

♂, 9.1–10.1 mm; ♀, 10.3–11.2 mm. Yellow, unmarked except for fuscous tarsi, apices of fore tibiae, and usually also apical margin of tegmina. Style apices truncate, with long, slender, nearly straight ventral lobe projecting caudad.

Holotype ♂ (BISHOP 11,778), GUADALCANAL: Kukum, 10 m, 21.VI.1956, J.L. Gressitt. 6 paratypes: GUADALCANAL: 2♀, same data as holotype; 1♂,1♀, Roroni, nr Tetere, 11.V.1960, C.W. O'Brien; VELLA LAVELLA: 1♂, Ulo Crater, 10 m, XII.1963, malaise trap; SAN CRISTOBAL: 1♀, Wairahu Riv, 100–400 m, 9–15.V.1964, J. Sedlacek. 1 paratype in CNC.

Remarks. The male genitalia of *flava* are similar to those of *pubescens,* n. sp., *setosa,* n. sp. and *transpuncta,* n. sp. Adults of *flava* are unique in being largely unmarked yellow.

The single male from Vella Lavella differs from the other types in its smaller size, slightly shorter head and lack of infuscations on the tegminal apices. However, these differences are probably due to its belonging to the "winter" rather than the "summer" generation.

Liorhina interrupta Hamilton, **new species** FIG. 29

♂, 7.5–8.3 mm; ♀, 7.7–8.9 mm. Black, usually red-brown on posterior ½ of pronotum, scutellum, and inner margins of tegmina; coxae tawny; marked with fine yellow lines and spots as follows: 3 transverse bands on crown and 1 on pronotum, transverse band across middle of tegmina interrupted just before costa, defining costal spots (FIG. 29); sometimes also yellow costal spots or streaks before apices, as in FIG. 40, 41; venter usually marked with fine lateral stripes. Style apices as in *apicistriata.*

Holotype ♂ (BISHOP 11,779), PNG: BOUGAINVILLE (S): Kokure, 690 m, 11.VI.1956, E.J. Ford, Jr. 64 paratypes: BOUGAINVILLE: 2♂,1♀, same data as holotype, 10.VI.1956; 1♂, same data, 15.VI.1956; 1♀, same data, 16.VI.1956; 1♂, Kokure, nr Crown Prince Range, 900 m, 10.VI.1956, J.L. Gressitt; 1♀, Kokure, 690 m, 14.VI.1956, Gressitt; 1♂,1♀, Pukpuk I, nr Kieta, 26.VI.1956, E.J. Ford, Jr.; 1♂, Kieta, 26.XI.1959, T.C. Maa; 1♂, Torpanos, 6 km W of Tinputz, 200 m, 22–

29.II.1968, Abid Beg Mirza; 3♀, Mutahi, 18 km SE of Tinputz, 1–7.III.1968, Tawi; 1♀, Buin, 2.VI.1956, Ford; 1♀, Kukugai Vill, 150 m, XII.1960, W.W. Brandt; 1♀, Mosigeta, 25 m, 3.VI.1956, Ford; PNG: BUKA: 22♂,18♀, Buka Agric. Stn., 6–10.XII.1959, T.C. Maa; 4♂,1♀, Gagan, 40 m, 8–11.XII.1959, T.C. Maa; 1♂, Gagan, 40 m, 15.VI.1956, Gressitt; CHOISEUL: 1♂, Kolombangara Riv, 60 m, 20.III.1964, P.S. [Shanahan]. 2 paratypes in CNC.

Remarks. The interrupted transverse yellow band on the tegmina of *interrupta* resembles that of *penniops,* n. sp. (FIG. 23); these species can be distinguished by the apical spots on the tegmina of *penniops,* and by the presence of 2 (not 1) apical stylar teeth in *interrupta.* The male genitalia of *interrupta* are similar to those of *nigripes,* n. sp., *ovata,* n. sp. and *apicistriata,* n. sp.; adults of these species may be distinguished from those of *interrupta* by their color pattern.

Some specimens of *interrupta* from Bougainville and Choiseul have apical yellow marks on the tegmina similar to those of *nggelana* and *obliqua* (FIG. 40, 41). However, males of *interrupta* have the style apices distinctly asymmetrical, with a larger and strongly hooked ventral tooth and a smaller and straighter dorsal one than the symmetrical stylar teeth of *nggelana* and *obliqua* (Lallemand 1956, Fig. 5b, 5e).

Liorhina leopardus Hamilton, **new species** FIG. 42

♂, 9.4–9.7 mm; ♀, 10.1–10.8 mm. Venter red-brown, marked with broad yellow band across upper part of face and pro- and mesopleura, edged with broad black bands; apices of leg segments, claws, sides of fore femora, apical segment of beak and sometimes also disc of frons infuscated; dorsum brown, darker on outer ¾ of tegmina, heavily punctate with yellow spots behind 3 or 4 broad yellow transverse bands on crown and pronotum (FIG. 42). Style apices with single spiniform dorsal tooth and elongate, curved ventral lobe directed caudad.

Holotype ♂ (BISHOP 11,780), PNG: BOUGAINVILLE: Kukugai Vill, 150 m, XI.1960, W.W. Brandt. 7 paratypes: BOUGAINVILLE: 2♀, same data as holotype; 1♂, same data except X.1960; 1♀, Kokure, nr Crown Prince Range, 900 m, 8.VI.1956, J.L. Gressitt; 1♀, Kokure, 690 m, 10.VI.1956, E.J. Ford, Jr.; 1♂, same data except 15.VI.1956; 1♀, Mutahi, 18 km SE of Tinputz, 700 m, 8–14.III.1968, Tawi. 2 paratypes in CNC.

Remarks. The color pattern of the dorsum and the male terminalia are unique.

Liorhina nigripes Hamilton, **new species** FIG. 34, 35

♂, 8.2–9.4 mm; ♀, 8.8–9.8 mm. Brown to red-brown, blackish brown on fore and middle tarsi and tibiae, costae of tegmina, and edges of yellow lines across head, pronotum and tegmina (FIG. 34, 35); sometimes with dark markings more extensive, on fore and middle femora and coxae, pleura, sides and apex of face, interrupting yellow band on middle of tegmina, and base of crown (between 2nd and 3rd yellow coronal bands). Style apices as in *apicistriata,* n. sp.

Holotype ♂ (BISHOP 11,781), MALAITA: Dala, 50 m, 9–14.VI.1964, J. & M. Sedlacek. 26 paratypes: MALAITA: 1♂, same data as holotype; 1♂,2♀, same data except 6–8.VI.1964; 1♀, Dala, 5.VI.1964, R. Straatman; 2♂,1♀, Auki-Tangtalau, 25–200 m, 23.IX.1957, J.L. Gressitt; 1♂, Auki, 2–20 m, 21.IX.1957, Gressitt; 1♂, same data

except 2.X.1957; 1♂, Auki, 1 m, 5.VI.1964, J. & M. Sedlacek; 1♂,2♀, E of Kwalo (E of Auki), 350 m, 29.IX.1957, Gressitt; 1♂, Kwalo, 600–750 m, 29.IX.1957, Gressitt; 2♂,1♀, Tangtalau-Kwalo, 200–350 m, 24.IX.1957, Gressitt; 1♂, same data except 30.IX.1957; 1♂, Tangtalau, 200 m, 30.IX.1957, Gressitt; 1♂, same data except 150–200 m; 1♂, same data except 26.IX.1957; PNG: BOUGAINVILLE (S): 1♂, Tokinoitu, 20 m, 2.VI.1956, J.L. Gressitt; SANTA YSABEL (sic): 1♀, Kolotuve, 15.VI.1960, C.W. O'Brien; 1♀, Sukapisu, 900 m, 18.VI.1960, O'Brien; 1♀, Maloa, 29.VI.1960, O'Brien. 2 paratypes in CNC.

Remarks. Adults of *nigripes* closely resemble those of *nggelana,* but may be distinguished by the lack of apical yellow markings on the tegminal costa, and by the more prominent and distinctly hooked ventral stylar tooth. They also resemble adults of *interrupta,* but are generally larger, and lack the black anterior margin of the pronotum of the latter. The original description of *Clovia aruensis* Jacobi (1921) (described from the Aru and Key islands, which are to the west of New Guinea) suggests that this species may be similar to *nigripes,* but *aruensis* lacks the black legs of *nigripes.*

Liorhina ovata Hamilton, **new species** FIG. 18

♂, 6.8–7.0 mm; ♀, 7.3–8.0 mm. Black, marked with 2 deep red-brown discs on hind margin of crown of head, 4 yellow spots in a transverse row across middle of tegmina, 4 smaller preapical spots on tegmina (FIG. 18) and fine yellow lateral stripes on venter. Head short and rounded, crown 0.75 as long as pronotum. Style apices as in *apicistriata.*

Holotype ♂ (BISHOP 11,782), MALAITA: Auki, 2–20 m, 3.X.1957, on sedge, J.L. Gressitt. 6 paratypes: MALAITA: 1♂,2♀, Auki, 2–20 m, 2.X.1957, J.L. Gressitt; 1♂,1♀, E of Kwalo (E of Auki), 350 m, 29.IX.1957, Gressitt; 1♀, Nuna Lava, 25 km NE of Dala, 200 m, 16.VI.1964, J. Sedlacek. 1 paratype in CNC.

Remarks. The color pattern and short, rounded head are unique.

Liorhina penniops Hamilton, **new species** FIG. 23

♂, 7.4–8.6 mm; ♀, 7.4–9.0 mm. Black, metathorax tawny; marked with fine yellow lateral stripes on venter, 3 transverse yellow lines on crown of head and another on pronotum, a transverse yellow band across middle of tegmina more or less continuous with oblique yellow dashes on costae, a round yellow spot on disc of apical ½ of tegmen, and usually a small yellow dash nearby on costa (FIG. 23). Style apices with a single dorsal tooth.

Holotype ♂ (BISHOP 11,783) [STEWART IS]: Sikaiana, 0–10 m, XII.1972, N.L.H. Krauss. 6 paratypes: 1♂, same data as holotype; SANTA YSABEL (sic): 1♂,1♀, Molao, 29.VI.1960, C.W. O'Brien; 1♂, Tatamba, 0–50 m, 31.VIII.1964, R. Straatman; GUADALCANAL: 1♂, Tathimani, 13.V.1960, light trap, O'Brien; 1♀, Roroni, 35 km E of Honiara, 10 m, 11.V.1964, Straatman.

Remarks. The markings on the apical ½ of the tegmina and the single stylar tooth of males of *penniops* are similar to those of males of *floridana* (FIG. 36), from which species adults of *penniops* may be distinguished by the shorter, blunter head and transverse yellow band on the tegmina.

Liorhina pubescens Hamilton, **new species** FIG. 37

♂, 8.1–9.2 mm; ♀, 8.5–10.1 mm. Venter colored as in *leopardus,* but with dark markings more extensive, including infuscations on sides of middle femora, margins of frons, and often also of tibiae, tarsi, coxae and sterna; dorsum black, covered with fine yellow hairs giving a gray cast; crown, pronotum, and scutellum marked with 5 transverse yellow bands (the anterior pair often confluent); tegmina marked with long yellow dashes at bases of clavi and costae, a chain of yellow spots across middle, and pairs of yellow spots in an oblique series at apices (adjacent spots sometimes confluent) (FIG. 37). Style apices as in *flava,* n. sp. but ventral lobe slightly shorter, and style constricted before dorsal teeth.

Holotype ♂ (BISHOP 11,784), MALAITA: Andalimu-Ngarafata (SW Fiu Riv), 1–10 m, 19.IX.1957, [on] *Commersonia,* J.L. Gressitt. 17 paratypes: MALAITA: 3♂,3♀, same data as holotype; 1♂,1♀, same data, [on] *Pipturus*; 1♂,3♀, Dala, 50 m, 6–8.VI.1964, J. & M. Sedlacek; 1♀, same data except 6–13.VI.1964; 1♀, same data except 9–14.VI.1964; 1♂, same data except 10.VI.1964; 1♂, E of Kwalo (E of Auki), 350 m, 29.IX.1957, J.L. Gressitt; 1♀, 3 km N of Auki, 30 m, 2.VI.1964, J. & M. Sedlacek. 2 paratypes in CNC.

Remarks. The markings on the dorsum are unique.

Liorhina setosa Hamilton, **new species** FIG. 32

♂, 9.3 mm; ♀, 10.2–10.4 mm. Venter yellow, black on abdominal laterotergites, claws, outer faces of tibiae, and spot on mesopleuron; infuscated on tarsi, basal segment of beak, and base of hind tibial spurs; dorsum black, thickly covered with yellow hairs giving a gray cast; crown and pronotum marked with 4 transverse yellow bands; tegmina marked with a broad transverse ivory band across middle and 2 broad apical patches (sometimes divided into 2 spots) edged with yellow-brown (FIG. 32). Style apices as in *flava,* n. sp. but ventral lobe slightly longer and narrower.

Holotype ♂ (BISHOP 11,785), NEW GEORGIA: Munda, 1–30 m, 15.VII.1959, J.L. Gressitt. 2 paratypes: 1♀, same data as holotype, 15–30 m, 14–15.VII.1959; SANTA YSABEL (sic): 1♀, Tatamba, 0–50 m, 27.VIII.1964, R. Straatman.

Remarks. Adults of *setosa* closely resemble dark individuals of *recta,* from which they may be distinguished by the coronal bands not being confluent; the males also may be distinguished by the slender ventral stylar lobe.

Liorhina splendida Hamilton, **new species** FIG. 43

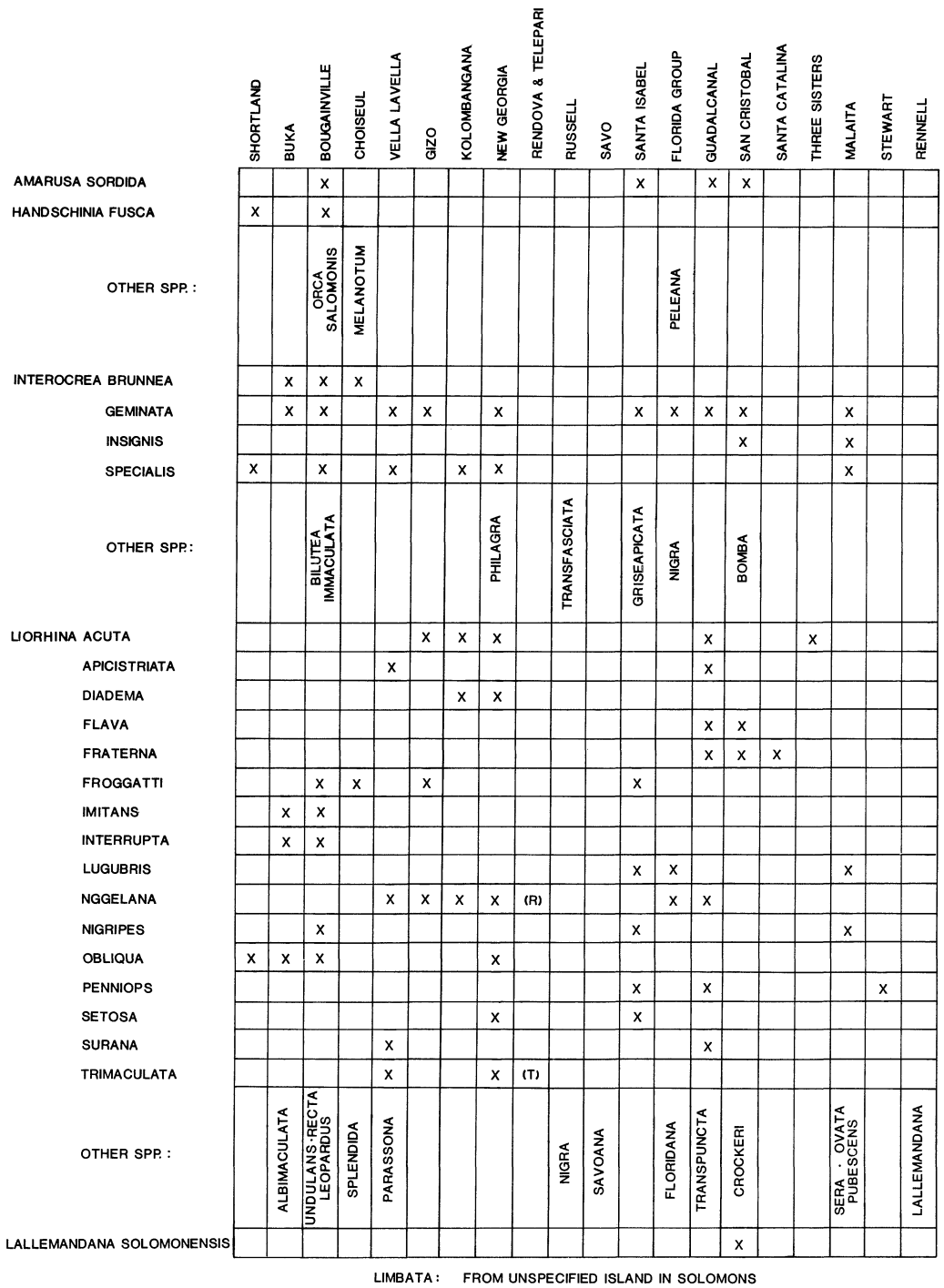
♂ unknown; ♀, 11.7 mm. Venter colored as in *leopardus*; crown and anterior ¼ of pronotum red-brown, marked with 4 transverse yellow bands; posterior part of pronotum and scutellum yellow-brown, with yellow spots on scutellar angles; tegmina black, densely covered with yellow hairs, giving a greenish gray cast, marked with large yellow patches at either end, a small pair of yellow costal spots near apical patch, a zigzag transverse yellow band across middle, and brown apical and inner margins (FIG. 43).

Holotype ♀ (BISHOP 11,786), CHOISEUL: Kitipi Riv, 80 m, 17.III.1964, P. Shanahan.

Remarks. The dorsal color pattern is unique.

Liorhina transpuncta Hamilton, **new species** FIG. 25

♂, 9.4 mm; ♀, 9.3–10.3 mm. Venter colored as in *leopardus*; dorsum colored as in *pubescens,* but yellow hairs more prominent, costal streaks slightly brownish, and yellow transverse bands on crown, pronotum and scutellum absent (FIG. 25). Style apices as in *setosa.*



LIMBATA: FROM UNSPECIFIED ISLAND IN SOLOMONS

FIG. 48. Distribution of aphrophorine fauna among islands in the Solomon chain. *Liorhina limbata* was described from an unspecified island, and is hence omitted from the tabulation.

Holotype ♂ (BISHOP 11,787), GUADALCANAL: Lunga Riv (bridge), 9.6 km SE of Honiara, 3.VI.1960, C.W. O'Brien. 3 paratypes: GUADALCANAL: 1♀, Betikama Riv, IX.1960, W.W. Brandt; 1♀, XII.1920, J.A. Kusche; 1♀, I.1921, Kusche.

Remarks. The dorsal color pattern, yellow setation of the tegmina, and slender ventral stylar lobe of *transpuncta* resemble those of *albimaculata,* n. sp. and *pubescens,* n. sp. The highly colored venter of *transpuncta* differs strikingly from the clear yellow venter of *albimaculata.* The elongate ventral stylar lobe of *transpuncta* and the lack of transverse yellow bands on the dorsum distinguish males of this species from those of *pubescens.*

Liorhina undulans Hamilton, **new species** FIG. 47

♂, 8.0 mm; ♀, 8.8 mm. Brown, with blackish brown fore and middle legs (except leg bases as far as base of femora), infuscated on disc of frons, antennal ledges, lateral ⅓ of pronotum and base of tegmina (darkest in ♂); marked with moderately broad lateral yellow stripes on venter, 3 fine transverse yellow bands on crown of head, 1 on pronotum, and irregular curved band across middle of tegmina (FIG. 47). Scarcely dorsoventrally compressed; frons distinctly inflated; crown short and rounded, 0.75 as long as pronotum on midline; style apices long and sinuate, armed with a single dorsal tooth.

Holotype ♂ (BISHOP 11,788), PNG: BOUGAINVILLE: Mt Balbi, 2000–2400 m, 8–14.V.1968, R. Straatman. 1 paratype ♀, same data as holotype except 1–7.III.1968.

Remarks. The short, rounded head and single dorsal stylar tooth of *undulans* are similar to those of *ovata,* n. sp. but the color of both dorsum and venter are entirely different.

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