

Chrysomelidae of Fiji (Coleoptera)¹

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THIS REPORT is based primarily on the extensive collection made by E. C. Zimmerman in 1938 as a member of the Bishop Museum's Henry G. Lapham Fijian Expedition. Additional material was taken by J. M. Valentine in 1937, N. L. H. Krauss in 1941, 1950, 1951, and 1955, E. H. Bryan, Jr. in 1924, and J. L. Gressitt in 1952 and 1955. A few other specimens were taken by Albert Koebele, J. F. Illingworth, H. S. Ladd, W. Greenwood, W. H. Ford, C. M. Cooke, Jr., Otto Degener, Yoshio Kondo, R. W. Paine, R. A. Lever, and B. A. O'Connor. A total of about 3,500 specimens from Fiji was available for study.

Much of the older material was originally sent to the late Dr. S. Maulik, who found little time to devote to it before his death. The senior author then undertook the study at the request of E. C. Zimmerman, and identified much of the material, preparing descriptions of some new species and notes on others. The junior author was asked to go over the unidentified material and newer collections, and has added to the keys and descriptions. He has also made a special effort to obtain records with host-plant data during a visit to Vanua Levu in 1955. Because the work was largely done separately, the new species are individually credited to the de-

scribers. We are much indebted to Mr. Zimmerman for time spent in sorting the material, and in helping to compile the list of previously recorded species.

The host plants were kindly identified by A. C. Smith. Some host data and other information was supplied by B. A. O'Connor. The drawings of adults were made partly by the senior author, and partly by Dorothy Rainwater. The drawings of the genitalia were prepared by the junior author.

All types (with one exception) are deposited in Bishop Museum (BISHOP), with paratypes in the British Museum of Natural History (BM). Some paratypes are also deposited in the United States National Museum (US), the Commonwealth Scientific and Industrial Research Organization (CSIRO) in Canberra, and the California Academy of Sciences (CAS).

There are two systems of romanization of Fijian place names. The long-used system in Fiji utilizes "c" for the "th" sound, and "q" or "g" for the "ng" sounds. Instead of the former system, the actual phonetic spellings are used in this paper. When the old spellings occur on specimen labels, they are inserted in the text in parentheses following the phonetic spellings.

SPECIATION AND ZOOGEOGRAPHY

This very interesting collection, a tribute to Mr. Zimmerman's interest, has proven to be a most difficult one on which to report.

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Generic and specific boundaries have not been easy to determine, and, after repeated study, some specimens must still be left unidentified and others given questionable generic placement. Furthermore, the major part of the material belongs to the subfamily Eumolpinae, which is known for the difficulty of tribal and generic placement of its members. It may be of interest to quote Maulik's statement [1929: 191]: "The study of the Eumolpinae of the present collection lends support to an idea which suggested itself to me when I was studying other island faunas, such as that of the Seychelles. In that case also I was confronted with the same difficulty of judging the limits of a species which showed structural variations. The idea may be formulated thus: in island faunas species tend to become more plastic than in continental faunas." This statement would appear to apply very well also to the chrysomelid fauna of Fiji, and particularly to that of the subfamily Eumolpinae.

Fiji has a rather rich insect fauna, possessing many genera not found farther east in the Pacific. Also, the endemism is rather high. Only six of the fifteen Asiatic subfamilies of Chrysomelidae are represented in Fiji, whereas twice as many, or more, are represented in New Guinea. Thus it would appear safe to say, from consideration of this family of beetles, that Fiji represents an oceanic island group, or a relic continental group, which lost much of its original fauna through partial submersion, vulcanism, or tectonic activity.

Fiji possesses many old metamorphic and plutonic rocks, suggesting that it was part of an ancient Melanesian continent (Ladd, 1934: 49). On the other hand, Mayr (1941: 191-195) and Myers (1953: 19-27) have shown that the vertebrate fauna indicates that Fiji is oceanic rather than continental. The junior author feels that if Fiji were continental in the full sense, then more subfamilies, tribes, and genera of Chrysomelidae should be represented (see Gressitt, 1956: 14). The situation in this family appears to differ from that in

the Tenebrionidae as discussed by Kaszab (1955: 430), who concluded that the Fijian fauna was continental.

The Fijian chrysomelid fauna is characterized by a fairly small number of genera (35), many of which have developed a considerable number of species. There are four genera with species thought to be all introduced, or of doubtful generic placement. The remaining 31 genera possess an average of 4.3 species per genus in Fiji. Actually the ratio is still greater, as a number of species represented by uniques are left unnamed. Seven genera have over six species, five genera have over eight species, and three have over ten species. There are three endemic genera, besides some which may need naming.

The distribution of the 32 non-endemic genera, including those with introduced species, is as follows:

NUMBER OF GENERA

Fiji and Samoa only	2
Fiji, Samoa, New Hebrides	1
Fiji and New Hebrides	2
Fiji and New Zealand	2
Fiji and Australia	2
Fiji and Papuan Subregion	2
Fiji and Solomons	2
(one also in New Hebrides and Samoa)	
Fiji and Philippines	1
Fiji and Africa	1
(also Madagascar, New Caledonia, and perhaps Australia)	
Fiji and Oriental Region	9
(some occurring also in New Guinea or intermediate islands)	
Cosmopolitan	8

Hence the relationships appear to be with Southeast Asia, through New Guinea, much more than with the Australian region. Nine of the twelve chrysomelid genera in Samoa are also found in Fiji. Six of the 17 Micronesian genera also occur in Fiji.

Of the 137 species or subspecies listed in this work, 127 appear to be endemic to Fiji.

The following five species appear to be introduced to Fiji:

- Aulacophora nigrivestis* (Boisduval)
- Aulacophora quadrimaculata* (Fabricius)
- Aulacophora similis* (Olivier)
- Plesistia brunnea* Maulik
- Altica corusca* Erichson

Possibly *Plesistia brunnea* evolved in Fiji, and was introduced to Samoa. It is also possible that *Promecotheca caeruleipennis* Blanchard (*reichii* Baly) might have been introduced from Tonga to Fiji, or vice versa. Taylor (1937) considered it indigenous to Fiji.

Thus, except for the preceding two species and *Vitibia formosa* (Baly), *Phyllotreta blackburni* Bryant, and the genus *Eurydemus*, all of the non-introduced species in Fiji appear to be endemic. Seventy-one kinds are described

in this paper as new, and, of these, six are new subspecies. Two new genera are proposed.

Local endemism within Fiji appears to be clearly developed. The species from Kandavu, Moala, and Lau are in many cases different from those of the main islands, and different from each other. Many of the species from Ovalau appear to be the same as those on Viti Levu, and a similar relationship appears to exist between those of Taveuni and Vanua Levu. As to Viti Levu and Vanua Levu, there appear to be both species in common and sibling species or separate races on the two islands. A number of species listed as common to the two main islands may actually consist of weak separate races. Again, the problem of determining limits of species renders most difficult the decisions on monoisular endemism.

TABLE 1
DISTRIBUTION OF FIJIAN CHRYSOMELIDAE

	Viti Levu	Ovalau	Vanua Levu	Taveuni	Central Fiji	Lau I.	Kandavu	OTHER LOCALITIES
CRYPTOCEPHALINAE								
1. <i>Coenobius geniotomae</i> Gr., n. sp.			×					
2. <i>C. m. marginipennis</i> Bry.....	×		×	×				
3. <i>C. m. lauensis</i> Gr., n. subsp....						×	×	
4. <i>C. producticollis</i> Gr., n. sp....	×	×						
5. <i>C. zimmermani</i> Gr., n. sp....		×						
6. <i>Ditropidus punctulatus</i> Chapuis.						×		
7. <i>D. tibialis</i> Chapuis.....	?							
8. <i>Pycnophthalma cuprea</i> Bry.....	×							
9. <i>P. aureopilosus</i> (Bry.).....	×							
10. <i>P. apicale</i> Bry., n. sp.....	×							
11. <i>P. leverii</i> Bry.....	×							
12. <i>Loxopleurus costipennis</i> Bry....	×					×		
13. <i>L. leverii</i> Bry.....						×		
14. <i>L. ruficollis</i> Bry., n. sp.....	×					×		
15. <i>L. vitiensis</i> Bry.....	×					×		
16. <i>L. rotumanus</i> Gr., n. sp.....								Rotuma
17. <i>Cryptocephalus fraterculus</i> Chapuis.....	×							
EUMOLPINAE								
18. <i>Lindinia glabrata</i> Bry., n. sp. .	×							
19. <i>Rhyparida dispar</i> Bry.....	×		×					
20. <i>R. trapezicollis</i> Fairmaire.....	×	×	×					
21. <i>R. oblonga</i> Bry., n. sp.....	×							
22. <i>R. fijiensis</i> Gr., n. sp.....	×							

TABLE 1 (continued)
DISTRIBUTION OF FIJIAN CHRYSOMELIDAE

CRYPTOCEPHALINAE	Viti Levu	Ovalau	Vanua Levu	Taveuni	Central Fiji	Lau I.	Kandavu	OTHER LOCALITIES
23. <i>R. laddi</i> Gr., n. sp.	×							
24. <i>R. luteola</i> Fairm.	×							
25. <i>R. vermiculata</i> Gr., n. sp.			×			×		
26. <i>R. kandavu</i> Gr., n. sp.							×	
27. <i>R. strigosa</i> (Bry.)	×							
28. <i>R. bryani</i> Gr., n. sp.						×		
29. <i>Labasa scutellaris</i> Bry.	×		×					
30. <i>Vitibia formosa</i> (Baly)	×		×				×	New Hebrides
31. <i>V. rufviolacea</i> Fairm.	×							
32. <i>V. montana</i> Gr., n. sp.	×							
33. <i>V. greenwoodi</i> (Bry.)	×	×						
34. <i>V. striatipennis</i> Bry., n. sp.	×							
35. <i>V. vitiensis</i> (Bry.)	×	×		×	×	×		
36. <i>V. melochiae</i> Gr., n. sp.	×		×				×	
37. <i>V. duplicata</i> Gr., n. sp.	×							
38. <i>V. rufilabris</i> Bry., n. sp.	×							
39. <i>V. obscura obscura</i> Gr., n. sp.	×							
40. <i>V. o. submetallica</i> Gr., n. subsp.			×					
41. <i>V. bryanti</i> Gr., n. name	×							
42. <i>V. testacea</i> Gr., n. sp.	×	×						
43. <i>V. virida</i> Gr., n. sp.	×							
44. <i>V. dimorpha</i> Gr., n. sp.	×							
45. <i>V. pallipes</i> Bry., n. sp.	×							
46. <i>Stygnobia evansi</i> (Bry.), n. comb.				×				
47. <i>S. oconnori</i> Gr., n. sp.	×	×	×			×		
48. <i>S. albiseta</i> Gr., n. sp.					×			
49. <i>S. metallica</i> Bry.	×	×	×	×				
50. <i>S. elliptica</i> Gr., n. sp.	×							
51. <i>S. nandarivatu</i> Gr., n. sp.	×							
52. <i>S. leveri</i> (Bry.), n. comb.	×	×	×	×				
53. <i>S. ovalaua</i> Gr., n. sp.	×	×			×			
54. <i>Epinodostoma alocasiae</i> Gr., n. sp.			×					
55. <i>E. elongata</i> Bry., n. sp.	×							
56. <i>Eurydemus grandis</i> (Baly)		×	×				×	New Caledonia Australia
57. <i>E. insignis</i> Chapuis				×				
58. <i>Stethotes rufipes</i> Bry.	×							
59. <i>S. setosa</i> Gr., n. sp.	×							
60. <i>Parademotina aureotincta</i> Gr., n. sp.	×							
61. <i>Demotina pallipes</i> Bry., n. sp.						×		
62. <i>D. globidiona</i> Gr., n. sp.			×					
63. <i>D. fulva</i> Bry.	×		×			×		
64. <i>D. metallica</i> Bry., n. name	×	×	×					
65. <i>D. vitiensis</i> Bry.	×	×	×			×		
66. <i>D. bifasciata</i> Bry., n. sp.	×							
67. <i>D. albonotata</i> Bry.	×	×			×			
68. <i>D. evansi</i> Bry.			×	×				
69. <i>D. obscurata</i> Bry.	×		×	×				
70. <i>D. dissimilis</i> Bry.	×	×	×	×	×	×		
71. <i>D. irregularis</i> Bry., n. sp.	×							
72. <i>D. striata</i> Bry., n. sp.	×	×						

	Viti Levu	Ovalau	Vanua Levu	Taveuni	Central Fiji	Lau I.	Kandavu	OTHER LOCALITIES
73. <i>D. pubescens</i> Gr., n. sp.....					×			
74. <i>D. veitchi</i> Bry.....	×	×	×					
75. <i>D. fragilis</i> Gr., n. sp.....	×	×						
76. <i>D. nodosa</i> Bry., n. sp.....	×							
77. <i>D. rugosata</i> Gr., n. sp.....	×	×	×					
78. <i>D. cylindricollis</i> Gr., n. sp.....	×							
79. <i>Damelia marshalli</i> Clark.....	×							
80. <i>D. verrucosa</i> Bry., n. sp.....	×	×						
81. <i>D. rugosa</i> Bry., n. sp.....	×							
82. <i>Eucolaspis castanea</i> Bry., n. sp..	×							
83. <i>E. saltator</i> Gr., n. sp.....			×					
84. <i>Colaspoides brunnea</i> Bry., n. sp..	×	×						
85. <i>C. confusa</i> Gr., n. sp.....	×							
86. <i>C. vitiensis</i> Bry.....	×		×		×			
CHRYSOMELINAE								
87. <i>Plagioderia violaceipennis</i> Bry...	×	×	×			×		
GALERUCINAE								
88. <i>Aulacophora nigrivestis</i> (Boisd.)	×							Australia
89. <i>A. quadrimaculata</i> (Fabr.)....	×	×				×	×	Yasawa, Samoa, Melanesia, Queensland, W. Micronesia
90. <i>A. similis</i> (Oliv.).....	×	×	×	×	×	×	×	S. E. Asia, Melanesia, W. Micronesia, Samoa
91. <i>Malacotheria funerea</i> Fairm....	×							
92. <i>M. strigiscutata</i> Fairm.....	×	×						
93. <i>M. lateritia</i> Fairm.....	×	×	×					
94. <i>Plesistia brunnea</i> Maulik.....	×							Samoa
95. <i>Haplosomoides binotata</i> Bry., n. sp.....	×	×						
96. <i>Khasia nigra</i> Bry.....	×	×						
97. <i>K. nitida</i> Bry., n. sp.....	×							
98. <i>K. r. rugosa</i> Bry., n. sp.....	×	×						
99. <i>K. r. callosa</i> Gr., n. subsp.....			×					
100. <i>Cerophysa vitiensis</i> Bry.....	×							
101. <i>Monolepta</i> (Metrioidea) <i>s. signatipennis</i> (Fairm.)....	×	×						
102. <i>M. (M.) s. lauana</i> Gr., n. subsp.....						×		
103. <i>M. (M.) s. kandavuana</i> Gr., n. subsp.....							×	
104. <i>M. (M.) moala</i> Gr., n. sp.....					×			
105. <i>M. (M.) zimmermani</i> Bry., n. n.	×	×						
106. <i>M. (M.) vitiensis</i> Bry.....			×					
ALTICINAE								
107. <i>Phyllotreta blackburni</i> Bry.....	×							New Hebrides
108. <i>Aphthona veitchi</i> Bry.....	×	×						
109. <i>A. greenwoodi</i> Bry.....	×							
110. <i>A. lamia</i> Gr., n. sp.....	×							
111. <i>A. senetiki</i> Gr., n. sp.....			×					
112. <i>Alica corusca</i> Erichson.....	×	×	×			×		Tasmania, New Hebrides

TABLE 1 (continued)
DISTRIBUTION OF FIJIAN CHRYSOMELIDAE

	Viti Levu	Ovalau	Vanua Levu ^{sp}	Taveuni	Central Fiji	Lau I.	Kandavu	OTHER LOCALITIES
113. <i>Crepidodera oceanica</i> Gr., n. sp..	×							
114. <i>C. elongata</i> Gr., n. sp.....		×						
115. <i>C. evansi</i> Bry.....				×				
116. <i>C. fijiensis</i> Csiki.....	×		×					
117. <i>C. kraussi</i> Gr., n. sp.....	×							
118. <i>C. rotunda</i> Gr., n. sp.....	×							
119. <i>Psylliodes simmondsi</i> Bry.....	×							
120. <i>P. vitiensis</i> Bry.....	×							
121. <i>Alema leveri</i> Bry.....				×				
122. <i>A. nigra</i> Bry.....	×							
123. <i>Manobia metallica</i> Bry.....	×							
124. <i>M. levicollis</i> Gr., n. sp.....	×							
125. <i>M. obtusicollis</i> Gr., n. sp.....	×							
126. <i>M. producticollis</i> Gr., n. sp....	×							
127. <i>Nesobaltica brunnea</i> Bry., n. sp.	×							
128. <i>N. lauensis</i> Gr., n. sp.....						×		
129. <i>N. vitiensis</i> Bry.....		×	×					
130. <i>Febra venusta</i> Clark.....	×	×	×					
131. <i>F. insularis</i> Bry.....	×							
132. <i>F. varioloidea</i> Fairm.....		×						
133. <i>F. rubra</i> Gr., n. sp.....	×							
134. <i>F. n. nigroornata</i> Bry., n. sp....	×							
135. <i>F. n. vanuana</i> Gr., n. subsp...			×					
HISPINAE								
136. <i>Promecotheca caeruleipennis</i> Blanchard.....	×	×	×	×	×	×	×	Yasawa, Samoa, Tonga
137. <i>P. bicolor</i> Maulik.....	×		×					

KEY TO SUBFAMILIES OF *CHRYSOMELIDAE*
FOUND IN FIJI

- 1. Head normal, with vertex not projecting and with mouth directed forward or downward..... 2
- Head with vertex projecting strongly forward and mouth directed posteriorly below..... **Hispinae**
- 2(1). Antennae closely inserted on front of head; elytra not very rigid..... 3
- Antennae not closely inserted, separated by frons or vertex; elytra generally somewhat rigid..... 4
- 3(2). Posterior femur not greatly enlarged...
..... **Galerucinae**

- Posterior femur strongly swollen, adapted for jumping..... **Alticinae**
- 4(2). Middle three abdominal sternites not constricted; form of body more or less ovate or rounded, often strongly convex and constricted anteriorly..... 5
- Middle three abdominal sternites constricted in central portions; form of body subcylindrical; antenna often slender..... **Cryptocephalinae**
- 5(4). Wing venation greatly reduced; cubital veins lacking; clypeus divided into two parts; body rounded and depressed...
..... **Chrysomelinae**
- Wing venation not reduced; cubital

veins present; clypeus not divided; body very convex; elytra often broader than prothorax **Eumolpinae**

Subfamily *CRYPTOCEPHALINAE*

KEY TO FIJIAN GENERA OF CRYPTOCEPHALINAE

- 1. Antenna generally much shorter than body, usually thickened distally; pygidium not conspicuously exposed (*MONACHINI*) 2
- Antenna generally nearly as long as body, slender; pygidium more or less conspicuously exposed (*CRYPTOCEPHALINI*); prosternum dilated forward toward mouth parts . . . **Loxopleurus**
- 2(1). Dorsum glabrous and shiny, lacking scale-like hairs; pronotum not produced over scutellum 3
- Dorsum often bronzy, clothed with small scale-like hairs; pronotum produced over scutellum, sometimes hiding it **Pycnophthalma**
- 3(2). Prothorax more or less collared at apex, generally also punctured or grooved parallel to basal margin; scutellum narrow, tapering **Coenobius**
- Prothorax rarely margined or collared at apex, rarely punctured or margined parallel to basal margin; scutellum short, scutiform **Ditropidus**

Tribe *MONACHINI*

Genus *COENOBIOUS* Suffrian

Coenobius Suffrian, 1857, Linn. Ent. 11: 61 (type: *C. triangulum* Suffr.; Africa).

Head broad and depressed, epistoma joined with the front. Eyes large, strongly notched, touching each other. Antenna short, first segment oblong ovate, second shorter and more slender, the six apical dilated. Prothorax contracted in front, somewhat convex, all the angles well marked, posterior margin serrate with a median lobe not very prominent. Scutellum with the sides parallel on basal two-thirds, converging to the apex, which is

slightly raised. Elytron convex near scutellum, slanting steeply at side, shoulder prominent and epipleuron well marked; surface evenly punctate-striate. Prosternum one and a half times broader than long, slightly produced at anterior margin, with a marginal impression, posterior margin emarginate, with lateral angles prominent. Legs short; tarsi with third segment strongly notched, claw segment almost entirely engaged in the preceding and claws dilated and toothed basally.

KEY TO FIJIAN SPECIES OF *Coenobius*

- 1. Anterior end of prothorax less than three-fifths as broad as base of prothorax 2
- Anterior end of prothorax more than three-fifths as broad as base; pronotum pale, sparsely punctured; elytron darkened in scutellar area **geniostomae**
- 2(1). Dorsum, or at least elytron, dark pitchy 3
- Dorsum largely pale reddish testaceous, rarely marked with pitchy black on border, or outer portion, of disc of elytron 4
- 3(2). Pronotum more or less vertical at side and with a distinct oblique groove, generally pitchy with side paler; posterior process of pronotum emarginate; elytron punctured in grooved rows above as well as at side . . **zimmermani**
- Pronotum not vertical at side and without an oblique groove, the lateral margin distinctly flattened, generally entirely dark except for anterior collar, but sometimes with basal portion slightly paler; posterior process of pronotum large, not emarginate; elytron smooth above, with four distinct grooves at side **producticollis**
- 4(2). Discal punctures of elytron in part as large as interspaces; prothorax distinctly grooved at side; frons nearly

impunctate
 **marginipennis marginipennis**
 Discal punctures of elytron much smaller than interspaces; prothorax feebly grooved at side; frons distinctly punctate **marginipennis lauensis**

1. *Coenobius geniostomae* Gressitt, n. sp.

FEMALE: Testaceous, largely translucent or transparent, somewhat ochraceous on center of pronotum and middle of metasternum; elytron blackish on base and suture and obliquely on scutellar portion, and pitchy on outer margin; antenna pale on scape, dull ochraceous on next four segments, pitchy on remainder.

Head flat in front, round in outline, sparsely punctured on frons. Antenna two-thirds as long as body, fairly slender; scape fully as long as next two segments together; third slightly longer than second, fourth, and fifth; following longer and stouter, subequal. Prothorax five-eighths as long as broad, broad anteriorly, shiny, sparsely punctured, obliquely grooved at side; basal margin produced and emarginate opposite scutellum. Scutellum slender, narrowed apically. Elytron slightly narrowed between postbasal and preapical portions, distinctly punctured in regular rows, the punctures in most cases much narrower than interpunctural rows. Ventral surfaces closely punctured on side of thorax and second and following abdominal sternites; first sternite nearly as large as remainder of abdomen. First hind tarsal segment as long as next two combined. Length 2.5 mm.; breadth 1.5 mm.

VANUA LEVU: Holotype, female (BISHOP 2403), between Navakuru and Nakawanga, 300 m., on *Geniostoma vitiense*, Oct. 7, 1955, Gressitt; paratype, female, same data.

HOST: *Geniostoma vitiense* Gil and Benedict.

Differs from *C. marginipennis* Bryant in being stouter, with the prothorax shorter and broader anteriorly, the antenna partly darkened, and the elytron punctured but not

grooved. The paratype lacks the black on scutellar portion of the elytral disc.

2. *Coenobius marginipennis marginipennis* Bryant

Coenobius marginipennis Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 249. (Vanua Levu; type in Brit. Mus.)

Pale fulvous; elytron narrowly margined with fuscous; antenna with five basal segments fulvous and six apical segments tinged with fuscous.

Head impunctate; eyes meeting above. Antenna with six apical segments broader; scape nearly as long as second to fourth combined. Prothorax shiny, transversely grooved near anterior margin; side with an oblique groove; base produced into a lobe at middle. Scutellum impunctate, narrowly elongate. Elytron finely punctate-striate, interstices at side slightly convex. Pygidium closely punctured and clothed with very fine golden pubescence. First abdominal segment very long; second and third short and equal; last about equal to second and third combined. Length 2.5 mm.

VITI LEVU: Thuvu, Lautoka (after Bryant); nineteen, Lami Quarry, near Suva, Feb. 1951, Krauss; ten, Raki Raki, Lami, Lautoka, and Ndeumba, Jan. and Mar. 1955, Krauss.

VANUA LEVU: Type from Lambasa. Sixteen, eight, east of Lambasa, on *Glochidion cordatum*, Oct. 6, 1955, Gressitt; four, Nakawanga, on *Glochidion ramiflorum*, Oct. 8, 1955, Gressitt.

TAVEUNI: After Bryant.

HOSTS: *Glochidion cordatum* (Muell. Arg.) Seem.; *G. ramiflorum* Forst.

3. *Coenobius marginipennis lauensis* Gressitt, n. subsp.

Fig. 1

MALE: Pale ochraceous, slightly duller on distal half of antenna, narrowly pitchy on basal margin of prothorax. Legs and ventral surfaces sparingly clothed with short sub-erect pale hairs.

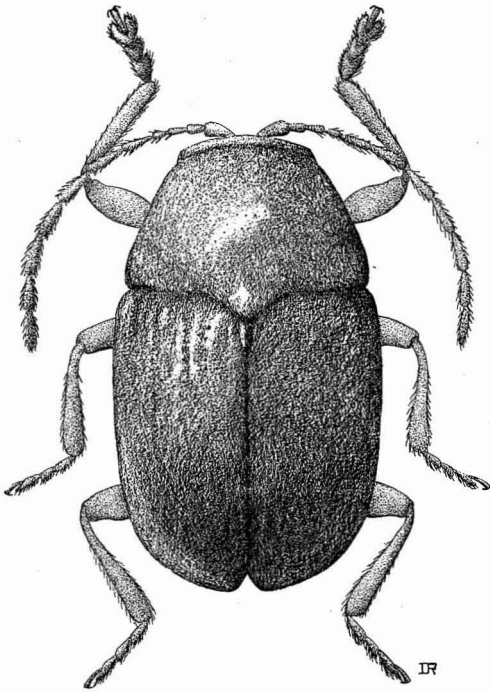


FIG. 1. *Coenobius marginipennis lauensis* Gressitt, n. subsp.

Head moderately punctured; eyes touching above. *Antenna* three-fourths as long as body, sixth and following segments thickened. *Prothorax* shiny, feebly punctured, feebly grooved at side. *Scutellum* subelliptical, about three times as long as broad. *Elytron* with ten regular rows of punctures which are mostly much smaller than spaces between them, longitudinally and transversely. *Ventral surfaces* in part punctured, largely impunctate on metasternum and first abdominal sternite. *Pygidium* closely punctured. Length 2.4 mm.; breadth 1.35 mm.

FEMALE: *Antenna* three-fifths as long as body; last six segments moderately thickened and pitchy. Length 2.5 mm.; breadth 1.6 mm.

LAU: Holotype, male (BISHOP 2385), Naiiau I., Fiji, Sept. 12, 1924, E. H. Bryan, Jr.; allotype, female (BISHOP), by seashore near Loma Loma, Vanua Mbalavu I., Aug. 7, 1938, Zimmerman.

KANDAVU: A third specimen, male, from

Kaivala, Apr. 29, 1941, Krauss, is also referred to this subspecies.

Differs from *C. marginipennis marginipennis* Bryant in being larger, entirely testaceous except for antenna, and in having the frons punctured, the pronotum less distinctly grooved at side, and the elytral punctures mostly much smaller than spaces between them.

4. *Coenobius producticollis* Gressitt, n. sp.
Fig. 2a, b

MALE: Reddish brown to dark pitchy, largely pitchy above; ventral surfaces slightly paler; base of antenna, front of head, and legs testaceous; fourth and following antennal segments gradually darkened, last nearly black; pygidium brown. Antenna, legs, and ventral surfaces sparingly clothed with short oblique pale hairs.

Head finely and irregularly punctured, somewhat raised on frons; eyes touching above. *Antenna* three-fourths as long as body, last five segments moderately thickened; scape hardly as long as second and third segments combined; second to fourth subequal in length, second more swollen. *Prothorax* just over two-thirds long as broad, much wider near base than at apex; lateral margin flattened, broadly expanded basally; apical collar moderately developed; median basal process

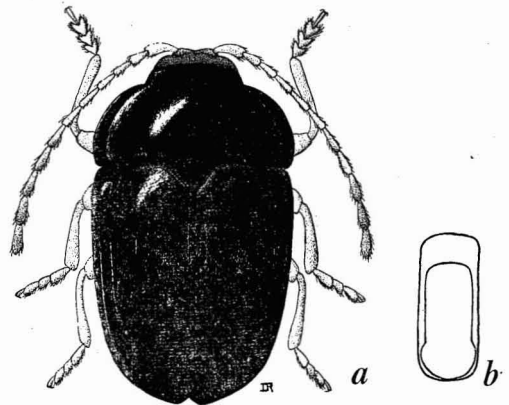


FIG. 2. *Coenobius producticollis* Gressitt, n. sp.; a, type; b, aedeagus.

well developed, subacute; disc convex, nearly impunctate, shiny, feebly grooved obliquely near middle of side of basal margin. *Scutellum* small, suboblong, about twice as long as broad. *Elytron* nearly impunctate, and ungrooved, on upper portion of disc, but with four deep grooves, hardly punctured, at side, none of which reach apex. *Ventral surfaces* sparingly punctured. *Pygidium* moderately punctulate. *Legs* short and stout. Length 1.65 mm.; breadth 0.94 mm.

FEMALE: Dorsum slightly paler on elytron. Antenna two-thirds as long as body. Length 2 mm.; breadth 1.1 mm.

VITI LEVU: Holotype, male (BISHOP 2398), ridge west of Vatuthere, alt. 900 m., Nandarivatu, Sept. 8, 1938, beating, Zimmerman; allotype, female (BISHOP), Nandarivatu, 1100 m., Sept. 6, 1938, Zimmerman. Two paratypes, male and female (BM), same data as allotype.

OVALAU: Two paratypes, both females (BISHOP), Andubangda, 600 m., Aug. 15, 1938, Zimmerman.

The Ovalau specimens have the pronotum paler, particularly apically and basally.

Differs from *C. marginipennis* Bryant in being smaller, darker, with the prothorax less convex, more broadly expanded on lateral margin, less punctate above, and more grooved at side.

5. *Coenobius zimmermani* Gressitt, n. sp.

Fig. 3

MALE: Dark chestnut brown to pitchy; head, legs, and last abdominal sternite testaceous; antenna testaceous basally, pitchy on last six segments. *Ventral surfaces* sparingly clothed with short pale hairs; antenna more densely clothed.

Head with a few punctures; frons narrow and slightly raised; eyes touching above, deeply emarginate. *Antenna* three-fourths as long as body; scape longer than second and third segments combined; second much shorter than third; last six segments thick-

ened. *Prothorax* two-thirds as long as broad, practically as broad as elytra, strongly narrowed anteriorly, distinctly collared at apex; disc sparsely and shallowly punctured, distinctly grooved obliquely at side. *Scutellum* slender, narrowed posteriorly, more than twice as long as broad. *Elytron* moderately punctured in ten distinct grooves, the last two deep; most of punctures smaller than spaces between them longitudinally. *Ventral surfaces* sparingly punctured, densely punctured on metepisternum, and moderately so on last abdominal segment. *Legs* fairly stout. Length 1.92 mm.; breadth 1.2 mm.

FEMALE: Pronotum pale on each side; ventral surfaces testaceous except for pitchy metasternum. Length 2.28 mm.; breadth 1.2 mm.

Paratypes: Length 1.2–2.4 mm.; breadth 0.93–1.3 mm.

OVALAU: Holotype, male (BISHOP 2399), Andubangda, 600 m., July 15, 1938, Zimmerman; allotype, female (BISHOP), same data; four paratopotypes, two males and two females (BISHOP, BM), same data.

Differs from *C. producticollis* in being slightly larger, with ventral surfaces paler, the pro-

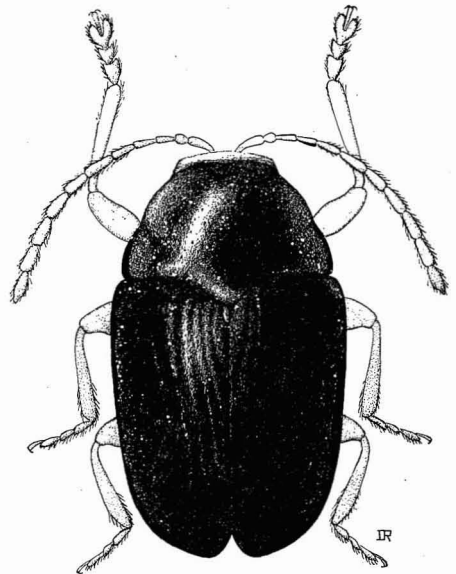


FIG. 3. *Coenobius zimmermani* Gressitt, n. sp.

thorax less expanded at side, less produced at middle of base, and with the elytron having ten distinct grooves, all punctured, with only the outer two grooves deep.

Genus DITROPIDUS Erichson

Ditropidus Erichson, 1842, Arch. f. Naturgesch. 8(1): 120.

Pleomorpha Saunders, 1847, Ent. Soc. London, Trans. 4(4): 268.

Broadly ovate. Eyes large, nearly touching. Antenna moderately thickened, barely more than one-half as long as body. Prothorax strongly convex, not distinctly collared apically or grooved parallel to base, with a prominent basal process covering base of scutellum. Scutellum scutiform. Elytron serrate-punctate, hardly grooved, with epipleuron broad basally.

6. *Ditropidus punctulatus* Chapuis?

Ditropidus punctulum Chapuis, 1876, Soc. Ent. de Belg., Ann. 18 C. R.: LXXX (Australia, Fiji).

MALE: Dark reddish pitchy; legs testaceous; antenna testaceous with apex slightly dusky. Ventral surfaces, legs and antenna with short oblique goldish hairs.

Head finely punctured; frons raised, flat. Antenna three-fifths as long as body; scape longer than next two segments combined; eighth to tenth segments nearly as broad as long. Prothorax evenly convex, considerably narrowed apically, sparsely and minutely punctured; posterior process bluntly rounded apically. Scutellum short, scutiform. Elytron with ten rows of small distinct punctures, the largest punctures somewhat longitudinal, and nearly as long as interspaces longitudinally. Pygidium finely punctured; ventral surfaces moderately punctured. Length 1.5 mm.; breadth 1 mm.

LAU: Mvana, Vanua Mbalavu, 60 m., Aug. 1938, Zimmerman, three males.

7. *Ditropidus tibialis* Chapuis

Ditropidus tibialis Chapuis, 1876, Soc. Ent. de Belg., Ann. C. R. 18: LXXIX (Australia, Fiji).

This species was recorded long ago from Fiji, but seems to be lacking in the present collection.

DISTRIBUTION: Southeastern Australia, Fiji.

Genus PYCNOPHTHALMA Maulik

Pycnophthalma Maulik, 1929, Insects of Samoa 4 (3): 180 (type: *P. tutuilana* Maulik; Samoa).

Body ovate. Eyes large, touching each other on upper side of head, deeply emarginate. Antenna 11-segmented, extending almost to the middle of the body; six apical segments thickened. Prothorax narrow in front; base not margined, edge with serrations, part opposite scutellum produced into a lobe which ends in an acute point; side margined, anterior and posterior angles rounded. Scutellum visible from above, narrow, oblong with rounded apex and base fitting against point of prothoracic lobe. Elytra not broader at base than prothorax, each punctate-striate, punctures deeply imbedded in grooves, striae appear at least on discal area, to be inclined toward the suture. Viewed from above the pygidium not exposed. Underside with intercoxal process of prosternum almost quadrate or slightly longer than broad, with surface rough and coarsely pitted; sides margined, and posterior edge widely arched. Epipleuron of elytron broader at base and narrowed from middle to apex. Legs fairly stout, not long, so that when withdrawn they are not visible from above. Claw segment of tarsus projecting a little beyond bilobed segment; claws appendiculate.

KEY TO FIJIAN SPECIES OF *Pycnophthalma*

1. Scutellum not completely hidden; dorsum pitchy reddish to bronzy, with silvery and golden to grayish pubescence. 2

Scutellum completely hidden; dorsum reddish coppery with golden bronzy pubescence, feebly depressed between prothorax and elytra. **cuprea**

- 2(1). Pronotum not deeply impressed near anterior margin except at side, distinctly depressed basally in lateral outline; dorsum pitchy reddish with varicolored scales; femora pale. 3
 Pronotum deeply impressed near anterior margin; elytra bronzy black with grayish silvery scales; femora black. **leveri**

- 3(2). Body outline somewhat pentagonal; elytral apex pale reddish; base of prothorax distinctly depressed on each side of median process. **apicale**
 Body somewhat regularly oval in outline; elytral apex not very pale; base of prothorax feebly depressed on each side of median process. **aureopilosus**

8. *Pycnophthalma cuprea* Bryant

Pycnophthalma cuprea Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 508 (Fiji).

MALE: Dark bronzy pitchy, more reddish beneath; antenna testaceous basally, brownish distally; legs testaceous. Body clothed above with short oblique bronzy golden hairs, turning to silvery on side and apex of elytron.

Head with frons raised and micropunctulate. Antenna barely over one-half as long as body; scape as long as next two segments combined; last six segments each about as broad as long. Prothorax nearly twice as broad as long, obtusely rounded anteriorly; disc sub-closely and distinctly punctured. Scutellum hidden. Elytron with regular rows of close longitudinal punctures, with interspaces somewhat closely punctured. Ventral surfaces unevenly punctured. Length 1.8 mm.

FEMALE: Antenna less than one-half as long as body. Length 2 mm.

VITI LEVU: Mt. Victoria, 1000 m., Tholo North, Sept. 1938, Zimmerman, 28 specimens.

9. *Pycnophthalma aureopilosa* (Bryant), n. comb.

? *Coenobius aureopilosus* Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 591 (Fiji; type in Brit. Mus.).

Pitchy brown, with dull golden, varying to silvery pubescence, above.

Head with eyes nearly touching; frons finely rugose-punctate, somewhat raised in middle. Antenna more than one-half as long as body in male, less than one-half as long in female; last six segments somewhat longer than broad. Prothorax fully two-thirds as long as broad, finely and closely punctured, distinctly depressed basally, and obliquely from base along side. Scutellum elliptical, a little longer than broad, smooth, concave basally. Elytron with distinct rows of elongate punctures, and fine punctures between rows. Ventral surfaces in part sparsely punctured. Length 1.9 mm.

VITI LEVU: Nandarivatu, 1100 m., Sept. 1938, Zimmerman (two), and Navai-Nasonga trail, 900 m., Sept. 1938, Zimmerman (one).

10. *Pycnophthalma apicale* Bryant, n. sp.

Fig. 4

Upperside metallic bronze-green, with apex of elytron narrowly flavous, clothed with short golden pubescence; elytron with side margin and apical half of suture showing white silky pubescence. Legs and antenna flavous.

MALE: Head with median portion clothed with short whitish pubescence, clypeus flavous, eyes large, touching at base. Antenna extending just beyond the base of elytra, flavous, first segment more than twice as long as second, third more slender and longer than second, the remainder about equal, six apical segments slightly thickened. Prothorax bronze-green, with dense short golden pubescence, transverse, widest at base, the base produced in a lobe opposite scutellum, sides rounded and contracted in front. Scutellum oblong very narrow. Elytron metallic bronze-green, apex

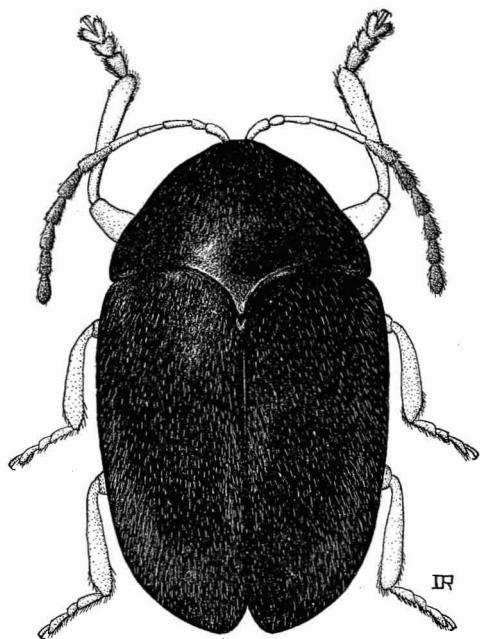


FIG. 4. *Pycnophthalma apicale* Bryant, n. sp.

narrowly flavous, clothed with short golden pubescence, except side margin and apical half of suture, which show short white silky pubescence, widest at base and slightly narrowed to apex. *Legs* flavous. *Underside* pitch black, clothed with very fine pubescence, with apical ventral segment flavous. Smaller than the female. Length 2–2.5 mm.; breadth 1.2–1.4 mm.

VITI LEVU: Holotype, male (BISHOP 2400), Nandarivatu, Viti Levu, 900–1000 m., Fiji, Sept. 3–6, 1938, Zimmerman; allotype, female and four paratypes, three males and one female, same data. One male paratype, Navai-Nasonga trail, west slope, 750–900 m., Sept. 12, 1938, Zimmerman; one female paratype, Mt. Victoria, west slope, Tholo North, 900–1200 m., Sept. 13, 1938, Zimmerman.

Allied to *P. cuprea* Bryant, but differs in the color and arrangement of the pubescence on the elytron, and in having the apex of the elytron flavous.

11. *Pycnophthalma leveri* Bryant

Pycnophthalma leveri Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 509 (Fiji; type in Brit. Mus.).

Dorsum bronzy; venter black; pronotum clothed with fine pubescence; elytron with small grayish silvery scales. *Head* impunctate; *antenna* reaching slightly beyond base of elytron; scape nearly twice as long as pedicel; third to fifth segments more slender, each longer than second and about equal to each other, the terminal segments slightly thickened. *Pronotum* bronzy with very fine punctures and fine scattered pubescence; front margin deeply impressed; side feebly margined. *Scutellum* oblong and very small. *Elytron* bronzy, clothed with very small grayish silvery scales, very finely punctate-striate, the three striae near side margin deeper. *Legs* with femora black, tibiae and tarsi flavous. Length 2 mm.

VITI LEVU: Nandarivatu (type series).

Tribe CRYPTOCEPHALINI

Genus LOXOPLEURUS Suffrian

Loxopleurus Suffrian, 1859, Linn. Ent. 13: 125; Chapuis, 1874, Gen. Col. 10: 186.

Head of medium size, engaged in prothorax; labrum large, free and almost entire; eye rather large, canthus triangular, measuring half the breadth of an eye. Antenna filiform, very slightly compressed towards the apex, shorter than the body in both sexes, extending half the length of body in female. Prothorax contracted in front, produced towards anterior angles, somewhat convex on disc, and slightly produced in middle of anterior border, side margin almost straight, entire, a little raised, posterior margin with a median lobe, two strong impressions near the scutellum, diverging towards anterior angles. Scutellum oblong, apex somewhat raised, an impression at base. Elytron elongate, subcylindrical, slightly broadening behind, epipleural lobes not prominent, shoulders well marked, with a lateral compression of the body, surface punc-

tate-striate, the rows sometimes confused and indistinct towards base. Prosteronum with anterior border a little swollen opposite mouth parts, somewhat dilated behind anterior coxa, obliquely truncate on each side and forming a pentagon of which the summit rests on mesosternum. Legs slender; tarsi rather long, three basal segments triangular, subequal, claw segment terminated by two slender claws, dilated and sinuous at base.

KEY TO FIJIAN SPECIES OF *Loxopleurus*

- 1. Length 2.6–3.6 mm.; center of pronotal disc and elytral base generally dark; elytron generally with outer margin or a postmedian band also dark 2
 Length 2.0–2.5 mm.; pronotum and elytron generally each uniformly pale or dark, or elytral disc dark with margins pale, or vice versa 3
- 2(1). Frons coarsely punctured, raised at side; pronotum almost impunctate; elytral punctures feeble *vitiensis*
 Frons slightly convex, moderately punctured; pronotum punctured; elytral punctures distinct *rotumanus*
- 3(1). Elytral intervals not raised; pronotum and elytron generally each uniformly pale or dark 4
 Elytral intervals slightly costate; flavous, a median pronotal and sutural stripe of blackish *costipennis*
- 4(3). Prothorax orange or yellowish; elytron entirely shiny blackish; abdomen black *ruficollis*
 Pronotum pale; elytron with disc largely dark and borders pale; abdomen yellow *leverii*

12. *Loxopleurus costipennis* Bryant

Loxopleurus costipennis Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 421, fig. 2 (Fiji; type in Brit. Mus.).

MALE: Flavous; last six antennal segments black and pubescent; pronotum with a median black stripe, broadest at anterior margin, gradually narrowing to a point at base; scutellum black; elytron with basal margin and suture narrowly black; ventral surfaces with fine golden pubescence, apical segment paler.

Head impunctate; eye strongly notched. *Antenna* reaching middle of elytron; scape longer than second and third segments combined. *Prothorax* with a very few fine scattered punctures and an oblique impression just behind middle of side. *Elytron* punctate-striate with intervals slightly costate.

FEMALE: Larger; black markings less well defined. Length: 2–2.5 mm.

VITI LEVU: Suva; type series taken by Lever. A male, Nandarivatu, Jan. 1955, Krauss; a male, Rewa, Feb. 1952, Gressitt.

LAU: One female, Loma Loma, Vanua Mbalavu I., Aug. 1938, Zimmerman, is tentatively referred here.

13. *Loxopleurus leverii* Bryant

Loxopleurus leverii Bryant, 1943, Ann. and Mag. Nat. Hist. Ser. 11, 10: 567 (Fiji; type in Brit. Mus.).

FEMALE: Testaceous; distal antennal segments brownish apically; elytral disc pitchy brown. *Head* feebly punctured on frons; eyes touching above. *Antenna* nearly three-fourths as long as body, slightly thickened distally. *Prothorax* nearly as broad as elytra, seven-ninths as long as broad, smooth and shiny; shallowly and obliquely grooved at side. *Elytron* feebly punctate-striate, with outer grooves more distinct. *Ventral surfaces* partly punctured at side. Length 2.65 mm.

LAU: Mvana, Vanua Mbalavu, Aug. 1938, beating shrubs, Zimmerman.

14. *Loxopleurus ruficollis* Bryant, n. sp.

Fig. 5

Black, the head, prothorax and legs rufous, prothorax nitid with a few scattered punc-

tures, elytron black, nitid, punctate-striate. Length 2.0–2.5 mm.

MALE: *Head* rufous, slightly rugose between antennal bases, eye reniform. *Antenna* extending almost to middle of elytron, seven basal segments flavous, apical four slightly fuscous, first segment slightly more dilated than second. *Prothorax* rufous, nitid, with a few scattered punctures, widest at base, side slightly contracted behind middle then slightly widening and contracted in front. *Scutellum* black, narrowly oblong, impunctate. *Elytron* black, nitid, punctate-striate, widest at base, gradually tapering to apex. *Underside* with prosternum rufous, abdominal sternites black, nitid. *Legs* flavous.

FEMALE: Differs in its slightly larger size, and a deep fovea in the apical ventral segment.

VITI LEVU: Holotype, male (BISHOP 2401), Korovou, Tailevu, Sept. 20, 1939, Valentine; allotype and one paratype (BISHOP, BM), same data. One female paratype, ridge west of Nandarivatu, Sept. 11, 1938, Zimmerman; another from Lami, Mar. 1951, Krauss.

LAU: One male, Vanua Mbalavu, Mvana, Aug. 9, 1938.

OVALAU: One male, Andubangda, July 15, 1938, Zimmerman.

Somewhat allied to *L. leveri* Bry., but smaller, the color pattern is different, and the elytra are more strongly punctate-striate.

15. *Loxopleurus vitiensis* Bryant

Loxopleurus vitiensis Bryant, 1943, Ann. and Mag. Nat. Hist. Ser. 11, 10: 566.

MALE: Testaceous to reddish brown, variable; often with a broad reddish band across pronotal disc, a similar one across elytral base, and a narrower one behind middle of elytra. *Head* grossly punctured; eyes contiguous above. *Antenna* three-fourths as long as body, slightly flattened distally. *Prothorax* nearly as broad as elytra, smooth and shiny, with an oblique groove on side. *Elytron* feebly seriate-punctate; last three rows more deeply punctured and slightly grooved. *Ventral surfaces* in part densely punctured. Length 2.6–2.9 mm.

FEMALE: *Antenna* three-fifths as long as body. Length 3–3.6 mm.

VITI LEVU: Mt. Victoria, west slope, Tholo North, Naivithula, Tailevu, Sept. 1937, Valentine; Tholo-i-suva, June 1924, Bryan and July 1938, Zimmerman; Nandarivatu, Sept. 1938, Zimmerman; Lami Quarry, July 1938, Zimmerman and May 1951, Krauss; near Suva, Feb. 1952, Gressitt.

16. *Loxopleurus rotumanus* Gressitt, n. sp.

Fig. 6

FEMALE: Testaceous; occiput pitchy; pronotum with a large central vaguely bordered pitchy area; scutellum ochraceous; elytron testaceous with basal, external, and apical margins broadly pitchy, and suture very narrowly reddish; ventral surfaces entirely pale except for posterior margins of first three abdominal sternites.

Head with a few punctures on frons, which is subtriangular and somewhat raised; eyes nearly touching above, each deeply emarginate near middle. *Antenna* three-fifths as long as body; last six segments slightly thickened; scape longer than second and third

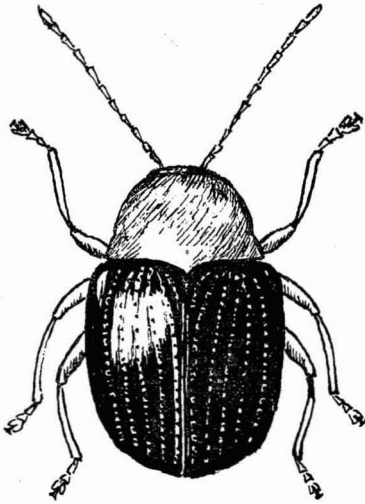


FIG. 5. *Loxopleurus ruficollis* Bryant, n. sp.

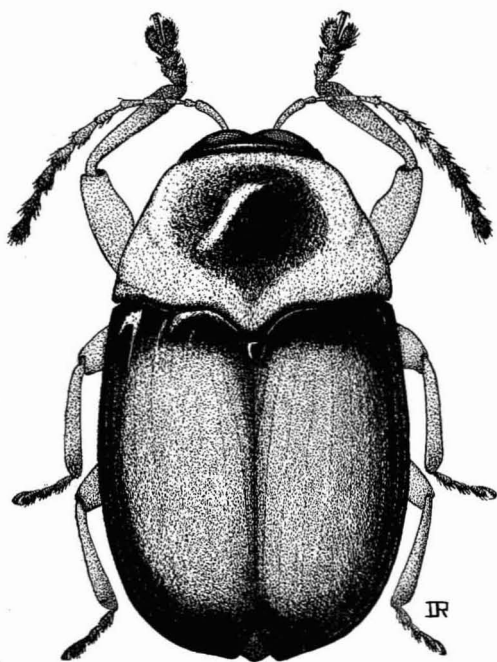


FIG. 6. *Loxopleurus rotumanus* Gressitt, n. sp.

segments combined; third distinctly longer than second or fourth. *Prothorax* nearly as broad as elytron, seven-ninths as long as broad, constricted, but not very distinctly collared, near apex; disc shiny, sparsely and shallowly punctured, obliquely grooved at side; median basal process emarginate. *Scutellum* suboblong, twice as long as broad, smooth. *Elytron* with ten rows of fine punctures, including sutural row, besides an oblique row between sixth and seventh regular rows; outer three rows in distinct grooves, the last two complete. *Ventral surfaces* in large part finely and not very closely punctured, and with short erect pale hairs; metepisternum finely rugulose; last abdominal sternite densely punctured except in the large central cavity. Length 3.5 mm.; breadth 2 mm.

ROTUMA: Holotype (BISHOP 2402) Jolmea, Rotuma Island, north of Fiji Islands, Aug. 13, 1938, H. St. John.

Differs from *L. vitiensis* Bryant in being stouter, with shorter antenna, more punctate pronotum and elytron, and with different

markings, having the pronotum with a large central pitchy area and the elytron pale with broad dark borders except along suture.

17. *Cryptocephalus fraterculus* Chapuis

Cryptocephalus fraterculus Chapuis, 1876, Soc. Ent. de Belg., Ann. C. R. 18: XCI (Fiji).

This species was described from Fiji, but has not been identified from the material at hand.

Subfamily EUMOLPINAE

The study of the Fijian members of this subfamily has proved most difficult. To adapt the Fijian material to most of the previously used classifications would have required the erection of a number of new genera or tribes. On the basis of the material at hand, it would appear that many characters used in the past as tribal characters do not deserve that value. Therefore, a compromise has been made, which cannot be considered a final or satisfactory treatment, but one that may serve until the faunae of the island groups to the west are better known in this family. In the main, the system proposed by Chen (1940: 486 ff.) has been followed, though it does not quite satisfactorily solve the problem. It has involved a reduction from eight or more tribes to three. Some of the old tribal names are inserted in parentheses in the text.

KEY TO FIJIAN GENERA OF EUMOLPINAE

1. Apical tergite of abdomen with a median longitudinal groove; generally glabrous above; tarsal claws appendiculate; middle and hind tibiae not emarginate preapically (Colaspoidini) 2
- Apical tergite of abdomen lacking a median longitudinal groove; tarsal claws generally bifid; middle and hind tibiae generally emarginate preapically 3
- 2(1). Elytron regularly seriate-punctate; body just over one-half again as long as broad *Eucolaspis*

- Elytron irregularly punctured; body more than twice as long as broad. **Colaspoides**
- 3(1). Prothorax generally without distinct lateral margin, but if margined then dorsum is clothed with fine scales or hairs and also base of prothorax is much narrower than elytra (*Adoxini*) 4
- Prothorax generally with a distinct lateral margin, but if unmargined then dorsum is generally glabrous (*Nodinini*) 6
- 4(3). Dorsum more or less pubescent, not exceedingly rough; legs not very long. 5
- Dorsum partly glabrous, exceedingly rough, with tubercles, nodes and heavy punctures; legs quite long. **Damelia**
- 5(4). Head narrower than prothorax; gena distinct; prothorax sometimes slightly margined at side; aedeagus more or less oblong, fairly broad. **Demotina**
- Head as broad as prothorax, very short, with minute gena; prothorax unmargined at side; aedeagus slender and acuminate apically. **Parademotina**
- 6(3). Prothorax narrower than elytra, or dorsum more or less glabrous, or length more than 4 mm. 7
- Prothorax practically as broad as elytra, distinctly margined; dorsum pubescent; body length less than 3 mm. **Stygnobia**
- 7(6). Prothorax nearly as broad as elytra, distinctly margined at side; dorsum generally glabrous, but rarely pubescent. 8
- Prothorax narrower than elytra, feebly margined or not margined at side; dorsum glabrous or with very fine indistinct hairs 9
- 8(7). Prothorax somewhat rounded anteriorly and rounded at side; elytron seriatly or irregularly punctured; dorsum glabrous or pubescent. **Rhyparida**
- Prothorax trapeziform, projecting at anterior corners; elytron seriate-punctate; dorsum glabrous. **Lindinia**
- 9(8). Scutellum normal. 10
- Scutellum transversely rectangular with prominent posterior angles. **Labasa**
- 10(9). Humerus not particularly prominent; body less than 8 mm. long. 11
- Humerus prominent; body length 10 mm. or more. **Eurydemus**
- 11(10). Body narrow or elytra attenuated posteriorly; generally blackish and deeply punctured; some fine hairs on pronotum or elytron. 12
- Body not particularly narrow; varying in color, often partly pale; rarely very heavily punctured; dorsum glabrous. **Vitibia**
- 12(11). Elytra more or less attenuated posteriorly, not parallel-sided; elytron with fine subrecumbent hairs parallel to suture, and sometimes also with suberect hairs; pronotum glabrous **Stethotes**
- Body narrow, parallel-sided; elytron glabrous; pronotum finely and sparsely pubescent; head grooved above eye. **Epinodostoma**
- Tribe NODININI
(METACHROMINI)
- Genus LINDINIA Lefevre
- Lindinia* Lefevre, 1893, Soc. Ent. de France, Ann. 62(3). Bul. CCLXVI (type: *L. reflexoaenea* Lef.; Philippines).

Robust; head short, with frons transverse; antenna fairly slender; prothorax short, subrectangular; elytra a little broader than prothorax.

This genus is primarily Philippine.

18. *Lindinia glabrata* Bryant, n. sp.

Fig. 7

Glabrous, rufous, with the exception of fuscous tibiae and eight apical antennal segments; elytron very finely and feebly punctate-striate.

MALE: *Head* rufous and glabrous, a median longitudinal impression on vertex not extending to the base. *Antenna* extending to middle of elytron, three basal segments fulvous, the remainder fuscous, two basal segments more dilated, the third long and slender, about equal to the first two; third to fifth about equal; sixth to eleventh slightly thickened and more pubescent. *Prothorax* rufous and glabrous, widest at base, the sides feebly rounded and contracted in front. *Scutellum* rufous, impunctate, rounded at the apex. *Elytra* rufous, glabrous, but very finely and feebly punctate-striate, wider than base of prothorax, the sides parallel and beyond the middle rounded to apex. *Legs* rufous with tibiae slightly fuscous, intermediate and posterior pair emarginate at apex. Underside rufous and glabrous, first ventral segment of abdomen longest, second to the fourth shorter and equal to each other. Length 6 mm.

VITI LEVU: Holotype (BISHOP 2404) Navai Mill, near Nandarivatu, Viti Levu, Fiji, Sept. 17, 1938, 800 m., Zimmerman. One paratype, Nandarivatu, 1100 m., Sept. 5, 1938, Y. Kondo.

Closely allied to *L. tibialis* Lef., but differs in the less closely punctate striae, and in not having the legs and mesosternum black.

Genus RHYPARIDA Baly

Rhyparida Baly, 1861, Jour. Ent. 1: 286 (type: *R. dimidata* Baly; Australia).

Marsaenus Clark, 1864, Jour. Ent. 2: 252 (type: *Cryptocephalus didymus* Fabr.; Australia).

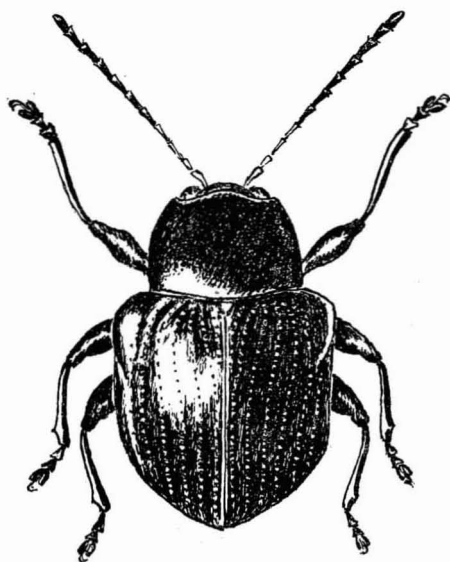


FIG. 7. *Lindinia glabrata* Bryant, n. sp.

Head short, generally grooved on occiput; prothorax subquadrate, often trapeziform or rounded at side; elytra only slightly broader than prothorax, seriate or rarely irregularly punctured. Generally glabrous above, but some Fijian species are pubescent. The last four species treated below may require a new genus.

This large genus is distributed in Madagascar, Mauritius, Ceylon, Indonesia, Philippines, and to the Carolines, Samoa, and Australia, but appears to be centered in the Papuan subregion.

KEY TO FIJIAN SPECIES OF *Rhyparida*

1. Length of body more than 5 mm. 2
Length of body less than 4 mm.; elytron regularly punctured 7
- 2(1). Dorsum glabrous; elytron more or less seriate punctured 3
Dorsum pubescent; elytron closely and irregularly punctured *luteola*
- 3(2). Pronotum rather densely punctured; elytron with puncture-rows somewhat irregular, very numerous and close, or punctures very large 4

- Pronotum sparsely or very finely punctured; elytron with regular, widely spaced rows of fine punctures. 5
- 4(3). Elytron with numerous, close, and slightly irregular puncture-rows; dorsum pitchy, slightly dull. **laddi**
 Elytron with very large punctures in slightly irregular rows; dorsum bright reddish brown, shiny. **fijiensis**
- 5(3). Pronotum punctured, distinctly narrowed anteriorly; dorsum reddish to pitchy; elytron with interspaces somewhat convex. 6
 Pronotum impunctate, nearly as broad just behind apex as at base; dorsum shiny black, rarely reddish on elytron; elytral interspaces flat. . . **trapezicollis**
- 6(5). Reddish, with central portion of pronotal disc blackish; length of body less than 6 mm.; elytron less than three times as long as prothorax. . . **dispar**
 Pitchy black, slightly reddish on elytral bases; length of body more than 6.5 mm.; elytron more than three times as long as prothorax. **oblonga**
- 7(1). Pronotum finely pubescent. 8
 Pronotum glabrous, flat, closely vermiculate-punctate; elytron glabrous, shiny reddish. **vermiculata**
- 8(7). Elytron glabrous or very nearly so; pronotum smooth or longitudinally ridged between fine punctures. 9
 Elytron with minute scales or hairs; pronotum rather convex on disc, with dense punctures which are not arranged in longitudinal grooves; Lau I. **bryani**
- 9(8). Pronotal punctures largely in longitudinal or obliquely longitudinal grooves on side of disc; about 18 punctures in an approximate median longitudinal row; pronotal hairs fairly conspicuous; punctures in middle of second and third elytral rows separated transversely

by spaces about three times as wide as punctures. **kandavu**
 Pronotal punctures not in grooves; about 12 punctures in an approximate median longitudinal row; pronotal hairs rather inconspicuous; punctures in middle of second and third elytral rows separated transversely by spaces barely wider than their diameters. **strigosa**

19. *Rhyparida dispar* Bryant
 Fig. 8a

Rhyparida dispar Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 593 (Labasa; type in Brit. Mus.).

Ochraceous-castaneous, middle portion of pronotum and an interrupted stripe on elytral

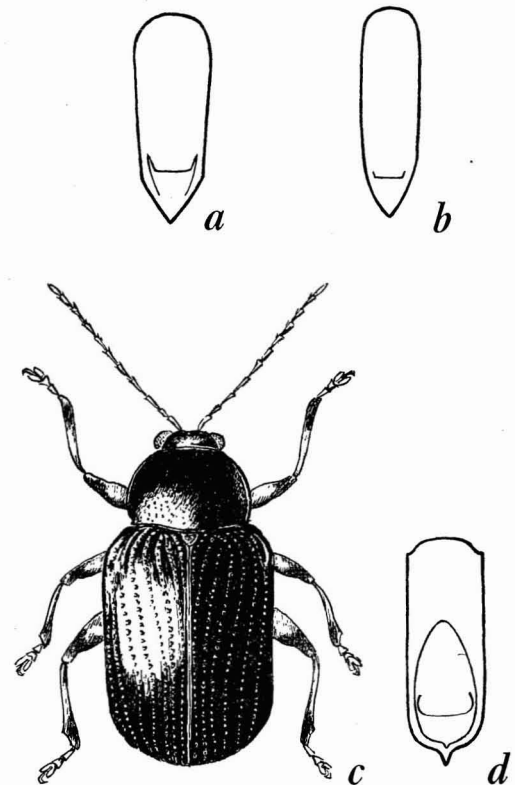


FIG. 8. a, *Rhyparida dispar*, aedeagus; b, *Rhyparida trapezicollis*, aedeagus; c, *Rhyparida oblonga* Bryant, n. sp.; d, *Rhyparida oblonga*, aedeagus.

disc pitchy. *Head* punctured throughout, grooved on occiput; *pronotum* moderately punctured, transverse; *elytron* deeply and regularly punctured. Length 4.5–5.7 mm.

VITI LEVU: Belt road west of Suva, July, Lami Quarry, near Suva, Aug., Mt. Korombamba, Aug., Nandarivatu, Sept. 1938, Zimmerman; Lami Quarry, Mar., May 1951, Krauss. Twelve specimens.

VANUA LEVU: Lambasa (type locality).

20. *Rhyparida trapezicollis* Fairmaire

Fig. 8b

Rhyparida trapezicollis Fairmaire, 1879, Le Naturaliste 1: 75 (Fiji); 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 484 (Ovalau; type in Paris Mus.).

Shiny black; reddish on antenna, tarsi, and sometimes elytron; palpi testaceous. Body fairly glabrous, except on antenna and legs. *Head* wrinkled and punctured; *pronotum* very sparsely and feebly punctured; *elytron* seriate-punctuate, but with the punctures in part very widely spaced, and mostly disappearing in apical third. Length 4.3–4.5 mm.

VITI LEVU: Belt road, 60–75 km. west of Suva, July 1938, Cooke and Zimmerman; Tholo-i-suva, July, ridge west of Nandarivatu, Sept. 1938, Zimmerman; Bulu, near Suva, Apr., Vunindawa, May 1941, Krauss.

OVALAU: Near Vuma, July 1938, Kondo; Thawathi, July 1938, Zimmerman.

VANUA LEVU: Nakawanga, and between Navakuru and Nakawanga, on *Dillenia* sp., and between Nakawanga and Mbangata, Oct. 7–9, 1955, Gressitt.

HOST: *Dillenia biflora* (A. Gray) Martelli.

21. *Rhyparida oblonga* Bryant, n. sp.

Fig. 8c, d

Elongate, more or less piceous, head marked with fulvous near eye and clypeus, rugosely punctured, prothorax transverse, with anterior margin narrowly fulvous, not closely punctured, elytron piceous margined with fulvous.

Head with a triangular piceous patch at the base, and transversely piceous between the insertion of antenna, and narrowly fulvous near eye and clypeus, rugosely punctured. *Antenna* fulvous, long and slender, extending beyond middle of elytron, the two basal segments more dilated, first longer than second, third long and slender, about equal to first two together, fourth slightly longer than third, remainder all about equal. *Prothorax* transverse, widest behind the middle, contracted in front, strongly but not closely punctured, piceous, with anterior margin fulvous. *Scutellum* fulvous, impunctate, rounded at apex. *Elytron* elongate, wider at base than prothorax, a short depression below base; piceous, slightly metallic, with base and side margins narrowly fulvous, strongly punctate-striate. *Legs* fulvous, slightly darker at apex of tibiae, and middle of femora, tibiae pubescent, intermediate and posterior tibiae emarginate at apex. *Ventral surfaces* more or less piceous, coxae fulvous, and apical ventral segments of abdomen tinged with fulvous. Length 6–7 mm.

VITI LEVU: Holotype (BISHOP 2405) Vatu-there, 800 m., Sept. 1938, under bark, Zimmerman; twelve paratopotypes, same data; one, Nandarivatu, Sept. 1938, Zimmerman. One taken under bark of *Agathis* sp. (kauri pine).

Differs from *R. dispar* Bryant in being larger, darker, with dorsum more deeply and closely punctured.

22. *Rhyparida fijiensis* Gressitt, n. sp.

Fig. 9

FEMALE: Reddish castaneous, ochraceous beneath and on antenna; pronotum with some small apparent blackish (transparent) spots. Antenna and legs with some short and some long oblique goldish hairs; ventral surfaces nearly glabrous.

Head distinctly punctured; frons subtriangular; vertex depressed; occiput feebly grooved. *Antenna* nearly three-fourths as long as body, slender; second segment two-thirds

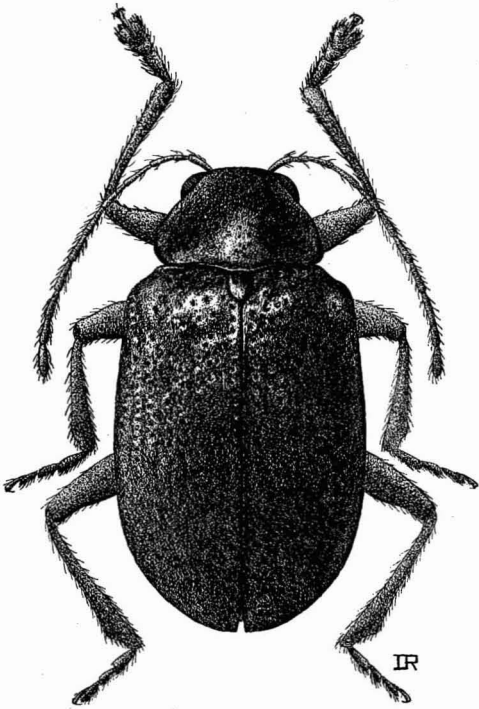


FIG. 9. *Rhyparida fijiensis* Gressitt, n. sp.

as long as scape; third nearly as long as scape; fourth longer than scape; fifth and following subequal. *Prothorax* five-sevenths as long as broad, convex in outline on four sides, somewhat narrower at apex than at base; disc rather coarsely punctured, somewhat closely so at side. *Scutellum* as long as broad, parallel-sided, rounded behind. *Elytron* slightly broadened to behind middle, then narrowed; disc coarsely punctured, almost foveate-punctate, in somewhat irregular, more or less complete, rows, the punctures mostly rather widely spaced. *Ventral surfaces* shiny and impunctate on metasternum, feebly punctured, punctulate, or wrinkled on metepisternum and abdomen. *Femora* not toothed. Length 6.7 mm.; breadth 3.6 mm.

VITI LEVU: Holotype, female (BISHOP 2406), Tholo-i-suva, 150 m., Aug. 25, 1938, Zimmerman, taken by beating shrubs.

Differs from *R. dispar* Bryant in being larger, more heavily and less regularly punctured, and more uniformly colored.

23. *Rhyparida laddi* Gressitt, n. sp.

FEMALE: Pitchy reddish brown, more reddish on elytron, ventral surfaces and legs, but darker on occiput, pronotum, parts of tibiae, and apices of femora. Body glabrous except for a few minute hairs on ventral surfaces; antenna and legs with some oblique or sub-erect pale hairs.

Head distinctly narrower than prothorax, about as wide as deep, finely and closely punctured except along median line of occiput behind center. *Antenna* two-thirds as long as body, slender; scape barely thickened, twice as long as second segment; third slightly longer than second; fourth slightly longer than scape, and slightly longer than fifth; sixth and following subequal, each not quite as long as fourth. *Prothorax* one-half as long as broad, not quite three-fourths as broad as elytra, distinctly rounded at side, narrower at apex than at base, broadest slightly behind center; disc moderately convex, finely and irregularly punctured with at least 15 punctures in an approximate mid-longitudinal row; interspaces between punctures somewhat raised, giving an uneven appearance. *Scutellum* longer than broad, rounded apically. *Elytron* nearly three times as long as prothorax, parallel-sided in basal two-thirds, evenly rounded with its fellow apically; disc punctured in about 19 rows at middle, the rows in part regular and in part irregular or unevenly spaced, with extra rows near scutellum and below humerus; disc swollen along hypothetical humeral ridge almost to apex. *Ventral surfaces* apparently impunctate. Length 5.7 mm.; breadth 3.65 mm.

VITI LEVU: Holotype, female (BISHOP 2407), above Matainanu, alt. 125 m., northeast coast of Viti Levu I., June 17, 1928, H. S. Ladd.

Differs from *R. luteola* Fairmaire in being glabrous above, in having the elytral punctures arranged in moderately regular rows and not nearly so dense and numerous, and with the pronotum also much less closely punctured.

24. *Rhyparida luteola* Fairmaire

Fig. 10a

Rhyparida luteola Fairmaire, 1879, Le Naturaliste 1: 75 (Fiji; type in Paris Mus.); 1882 Soc. Ent. de France, Ann. Ser. 6, 1: 434.

Reddish brown, some vague pitchy lines on pronotum; elytron pitchy brown except for reddish base; dorsum with rather close golden brown hairs. Head rugose-punctate; pronotum densely punctured; elytron closely punctured. Length 4.4–6.1 mm.

VITI LEVU: Belt road 32 km. west of Suva, July, Tholo-i-suva, July, Mt. Korombamba, Aug., ridge west of Nandarivatu, Sept. 1938, Zimmerman; Lami, Apr. 1951, Krauss, 28 specimens.

VANUA LEVU: Nakawanga, Oct. 8, 1955, Gressitt, five specimens, on *Couthovia*.

HOST: *Couthovia corynocarpa* A. Gray.

25. *Rhyparida vermiculata* Gressitt, n. sp.

Fig. 10b

MALE: Dark castaneous brown, pitchy black on pronotum. Body glabrous above.

Head fully four-fifths as broad as prothorax, as broad as deep, somewhat finely and closely punctured, distinctly striate on occiput. *Antenna* fairly slender, four-fifths as long as body; scape a little longer than second segment; third a little longer than second, subequal to fifth and sixth, shorter than fourth; seventh and following barely longer than fourth. *Prothorax* a little broader than long, a little narrower than elytra, distinctly rounded at side; disc very closely vermiculate-punctate, the anterior portion for most part longitudinally striate-punctate. *Scutellum* a little longer than broad, rounded behind, with a pair of punctures. *Elytron* more than twice as long as prothorax, moderately narrowed posteriorly; disc with 11 regular rows of fairly deep punctures, and two extra scutellar rows; some of basal punctures separated by hardly more than equivalent of their diameters, but much smaller posteriorly. *Metasternum* very sparsely

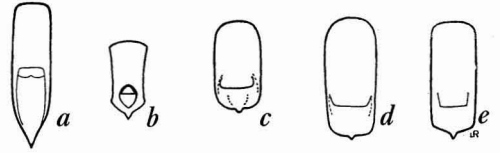


FIG. 10. a, *Rhyparida luteola*, aedeagus; b, *Rhyparida vermiculata* Gressitt, n. sp., aedeagus; c, *Rhyparida kandavu* Gressitt, n. sp., aedeagus; d, *Rhyparida strigosa*, aedeagus; e, *Rhyparida bryani* Gressitt, n. sp., aedeagus.

punctured; abdomen finely punctured. Length 3.2 mm.; breadth 1.6 mm.

LAU: Holotype, male (BISHOP 2408), Tuvutha I., northern Lau Group, Sept. 11, 1924, Bryan.

Differs from *R. dispar* Bryant in being much smaller, with the pronotum flat and densely vermiculate.

26. *Rhyparida kandavu* Gressitt, n. sp.

Fig. 10c

MALE: Pale castaneous brown with basal third of pronotum blackish; ventral surfaces reddish to pitchy; antenna pale in basal half, slightly pitchy in distal half. Pronotum finely pubescent; elytron apparently glabrous.

Head seven-tenths as broad as prothorax, slightly deeper than wide, strongly swollen above, finely and not very closely punctured on frons, strigose-punctate on occiput. *Antenna* two-thirds as long as body, moderately thickened distally; scape a little longer than second segment; third nearly as long as scape, slightly shorter than fourth; fifth as long as fourth, slightly longer than sixth; seventh and following subequal, each thickened distally and barely longer than fifth. *Prothorax* just over three-fourths as long as broad, nearly three-fourths as broad as elytra, distinctly rounded at side, slightly narrower at apex than at base, strongly rounded-convex at anterior margin, obtusely convex at basal margin; disc flattened in central portion which has narrow longitudinal punctures which are narrower than spaces between them; punctures on side of disc mostly rather close and

in obliquely longitudinal grooves. *Scutellum* slightly longer than broad, rounded apically. *Elytron* somewhat convex externally, broadest at middle, evenly curved posteriorly; disc with 11 distinct rows of punctures at middle and an extra scutellar and extra subhumeral row; punctures fairly large near humerus, but much smaller than interspaces along suture and on apical portion. *Ventral surfaces* strongly punctured on metasternum and finely punctured on abdomen. Length 3.1 mm.; breadth 1.3 mm.

PARATYPES: Varying from entirely reddish brown to pitchy black tinged in spots with reddish. Length 2.4–2.9 mm.; breadth 1.2–1.5 mm.

KANDAVU: Holotype, male (BISHOP 2409), Yawi, Apr. 28, 1941, Krauss; allotype, female (BISHOP), same data. Nine paratypes (BISHOP, BM, USNM, CSIRO), same data. Eleven paratypes, Vambea, Ono I., Kandavu Group, Apr. 30, 1941, Krauss.

Differs from *R. vermiculata* Gressitt in being smaller, in having shorter legs, in having the pronotum partly strigose and partly sparsely punctured, instead of entirely vermiculate, and the elytron with only one extra scutellar row of punctures.

27. *Rhyparida strigosa* (Bryant) new comb.

Fig. 10d

Nodostoma strigosa Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 424, fig. 6 (Tamavua; type in Brit. Mus.).

Black, metallic; anterior margin of prothorax narrowly fulvous; antenna with first six segments flavous and remainder fulvous; tibiae and tarsi fulvous. *Head* strigose; *antenna* slender, with third to sixth segments subequal; *prothorax* with side rounded basally and slightly contracted in front, strongly but not closely punctured; *elytron* strongly punctate-striate, the punctures stronger than on pronotum; *mesosternum* with a few strong punctures; first abdominal sternite twice as long as second. Length 3 mm.

VITI LEVU: Tamavua (type locality). Six from Bulu, near Sovi, Apr. 21, 1941, Krauss.

One reddish female specimen from Naroi, Moala I. (Aug. 24, 1938, Zimmerman) is close to this species, but probably represents a different race.

28. *Rhyparida bryani* Gressitt, n. sp.

Fig. 10e

MALE: Pitchy black, somewhat reddish on base and side of elytron, antenna, fore part of head, ventral surfaces, and legs. Pronotum with indistinct fine recumbent hairs; elytron with sparse minute scale and a few minute suberect hairs.

Head just over three-fourths as broad as prothorax, fully as broad as deep, finely and not very closely punctured on frons, somewhat densely substrigose-punctate on occiput, slightly grooved above eye. *Antenna* just over one-half as long as body, moderately stout distally; scape stout, a little longer than second segment and considerably thicker; third subequal to second and fifth, slightly longer than sixth and slightly shorter than fourth; seventh and following about as long as third, but much stouter. *Prothorax* just over three-fourths as long as broad, nearly three-fourths as broad as elytra, distinctly rounded at side, slightly narrower at apex than at base, convex apically and basally; disc convex, deeply impressed with longitudinal punctures which are mostly about as wide as interspaces, with roughly 15 in an approximate mid-longitudinal row. *Scutellum* pentagonal, slightly longer than broad, narrowed from base. *Elytron* just over twice as long as prothorax, subparallel-sided in basal two-thirds; disc deeply punctured in 12 regular rows at middle, with two extra scutellar rows, the interstices somewhat raised, and mostly about as wide as the punctures. *Ventral surfaces* punctured along margin of metasternum and vaguely punctured on abdomen. Length 2.3 mm.; breadth 1.3 mm.

PARATYPES: Sometimes entirely black ex-

cept for antenna and legs. Length 2.1–2.6 mm.; breadth 1.2–1.4 mm.

LAU: Holotype, male (BISHOP 2410), Fulanga I., southern Lau Group, Aug. 5, 1924, E. H. Bryan, Jr.; allotype, female (BISHOP), Ongea I. (Ogea Levu), southern Lau Group, July 21, 1924, Bryan. Four paratypes (BISHOP, BM), Tuvutha I., Sept. 10, and Namuka I., Aug. 12, 1924, Bryan. Named for the collector, who is Curator of Collections at Bishop Museum.

Differs from *R. strigosa* (Bryant) in having the pronotal puncturation much denser, the elytral puncturation somewhat denser, with the interspaces narrower and more raised, with two instead of one extra scutellar row, and with the elytron having fine scales instead of being glabrous.

Genus LABASA Bryant

Labasa Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 592 (type: *L. scutellaris* Bryant; Fiji).

Rather similar to *Rhyparida*, but scutellum highly transverse and angular; head rugose-punctate; pronotum grossly punctured; elytron subcostate basally. Endemic.

29. *Labasa scutellaris* Bryant

Labasa scutellaris Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 592 (Labasa; type in Brit. Mus.).

Pitchy to blackish or ochraceous; mostly dark, with antennal base, parts of legs, and some of basal elytral costae ochraceous; elytral puncture-rows nearly complete, the punctures weaker posteriorly. Length 5–6 mm.

VITI LEVU: Nandarivatu, Navai Mill, Oct. 1937, Valentine; Nandala, Mar. 1941, DeGENER; Nandarivatu, Aug. 1938, Zimmerman.

VANUA LEVU: Lambasa (type locality). Nakawanga, on *Pipturus*, *Merremia*, and *Trichospermum*, Oct. 8–9, 1955, Gressitt; Nakawanga to Mbangata, Oct. 9, Gressitt.

HOSTS: *Pipturus argenteus* var. *lanosus* Skotts.; *Merremia peltata* (L.) Merr.; *Trichospermum calyculatum* (Seem.) Burret.

Genus VITIBIA Fairmaire

Vitibia Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 485 (type: *V. rufoviolacea* Fairm.; Fiji).

Antenna more than one-half as long as body, segments subequal except for second. Prothorax much narrower than elytra, quadrate, very narrowly margined. Elytron seriate-punctate basally, the rows disappearing on postmedian portion. Femora unarmed, clavate; tibiae emarginate preapically. Probably some of the following species do not truly belong in this genus.

KEY TO FIJIAN SPECIES OF *Vitibia*

1. Length over 5 mm.; elytra metallic; prothorax red 2
- Length under 4 mm.; elytra testaceous to black; prothorax testaceous to pitchy brown 3
- 2(1). Elytra metallic green **formosa**
Elytra violaceous, golden green distally **rufoviolacea**
- 3(1). Prothorax about as long as broad, at least in male 4
Prothorax distinctly broader than long in both sexes 7
- 4(3). Prothorax dark, metallic; elytron submetallic, greenish to pitchy . . . 5
Prothorax pale or largely pale; elytron pale to partly brownish 6
- 5(4). Punctures on center of pronotum almost as large as interspaces, and approximately likewise for elytron; elytron more than one and one-half times as long as broad . . . **pallipes**
Punctures on center of pronotum about one-third as large as interspaces, and approximately likewise for elytron; elytron barely one and one-half times as long as broad **virida**
- 6(4). Frons and vertex distinctly concave; elytron somewhat carinate and ver-

- tical laterally, particularly in female; pronotum generally with a longitudinal dark stripe; elytra darkened posteriorly **dimorpha**
- Frons and vertex flat; elytron not carinate and vertical at side; pronotum and elytron uniformly pale. **testacea**
- 7(3). Frontoclypeus almost impunctate, sometimes with one or two large punctures; prothorax narrowed anteriorly, broadest behind middle, or suture darkened; pronotum with punctures of moderate size; testaceous to pitchy with a slight bronzy tinge 8
- Frontoclypeus distinctly punctured; prothorax often symmetrical antero-posteriorly, broadest in middle; ochraceous to greenish pitchy 10
- 8(7). Prothorax broadest slightly behind middle; terminal portion of aedeagus somewhat gradually tapering 9
- Prothorax broadest at middle; terminal portion of aedeagus rather suddenly narrowed; body pale with suture darkened **striatipennis**
- 9(8). About eight punctures in an approximate mid-longitudinal row on pronotum; female without a sharp humeral carina on elytron; male pale; female bronzy brown, darkened on side of elytron, and slightly so on suture **montana**
- About 12 punctures in an approximate mid-longitudinal row on pronotum; female with a sharp humeral carina on elytron; male pale; female dark, often pale only on base and apex of elytron, but sometimes also along middle **greenwoodi**
- 10(7). Prothorax evenly rounded at side, widest in middle, symmetrical antero-posteriorly 11
- Prothorax not symmetrical antero-posteriorly, widest behind middle 13
- 11(10). Pronotal punctures exceedingly fine, separated by spaces several times as wide as punctures 12
- Pronotal punctures moderate, separated by spaces often not much greater than width of punctures; pale, with darkened suture **striatipennis**
- 12(11). Elytral punctures quite uneven in size, and partly in uneven rows, rarely extending beyond middle; scutellum subpentagonal; aedeagus of male blunt apically **vitiensis**
- Elytral punctures somewhat even and subregular, often extending beyond middle; scutellum subrounded apically; aedeagus of male acuminate apically **melochiae**
- 13(10). Pronotal punctures moderately fine to strong; pronotum not broadest very near base in male; length less than 2.7 mm 14
- Pronotal punctures very minute and very widely spaced; pronotum broadest very near base in male, considerably tapered anteriorly; length more than 2.8 mm.; male ochraceous; female darker along middle of elytral disc **bryanti**
- 14(13). Pronotum moderately punctured, less than 10 punctures in an approximate mid-longitudinal row; color pale to partly greenish pitchy . . . 15
- Pronotum heavily punctured, at least 12 punctures in an approximate mid-longitudinal row; dorsum pitchy brown to blackish, paler only on front of head and base of elytron, generally darker on pronotum **rufilabris**
- 15(14). Pronotal punctures fine, mostly one-third to one-fourth as wide as inter-

spaces; dorsum partly greenish bronzy, at least across center of pronotum and on parts of elytron . . . 16

Pronotal punctures moderate, mostly one-half as wide to nearly as wide as interspaces; dorsum pale except for suture which is sometimes slightly darkened; orifice of aedeagus twice as long as broad . . . **duplicata**

16(15). Largely pale, with slight darkening on pronotum and elytron; elytral punctures not entirely minute behind middle **obscura obscura**

Largely metallic green, with pale areas on apex and base of pronotum and with a parasutural pale stripe on elytron from base to apex; elytral punctures minute behind middle **obscura submetallica**

30. *Vitibia formosa* (Baly)

Fig. 11a

Rhyparida formosa Baly, 1877, Ent. Soc. London, Trans. 1877: 40 (New Hebrides; type in Brit. Mus.).

Vitibia formosa Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 485.

Bright ochraceous red, paler on legs and ventral surfaces; elytron metallic green; antenna black beyond fourth segment. Head feebly punctured; prothorax feebly punctured; elytron with rows of moderate punctures which disappear on posterior portion of disc. Length 5–6.2 mm.

VITI LEVU: Londoni, Tailevu, Aug. 1937, Valentine.

OVALAU: Levuka, Nov. 1937, Valentine.

KANDAVU: Yawi, Apr. 1941, Krauss, six specimens.

NEW HEBRIDES.

HOST: On leaf of *Excoecaria agallocha* L., after Lever; *Thespesia populnea* (L.) Sol, after Valentine.

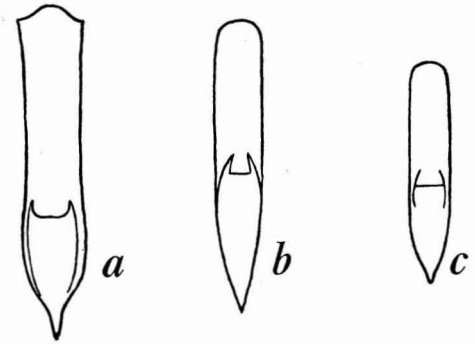


FIG. 11. a, *Vitibia formosa*, aedeagus; b, *Vitibia montana* Gressitt, n. sp., aedeagus; c, *Vitibia greenwoodi*, aedeagus.

31. *Vitibia rufoviolacea* Fairmaire

Vitibia rufoviolacea Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 485 (Viti; type in Paris Mus.).

Reddish testaceous, shiny; elytra violaceous, metallic greenish apically; antenna brownish with first three and base of fourth testaceous. Prothorax finely and sparsely punctured; elytron finely and irregularly punctured posteriorly. Length 6 mm.

FIJI: Described from "Iles Viti." No material is at hand; possibly this is the same as the preceding.

32. *Vitibia montana* Gressitt, n. sp.

Fig. 11b

MALE: Testaceous, slightly darker on suture in basal third; distal portion of last five antennal segments pitchy; parts of thoracic pleura and ventral hind margin of prothorax pitchy brown. Ventral surfaces and legs with a few scattered pale hairs.

Head nearly six-sevenths as broad as prothorax, about as deep as wide, almost impunctate. Antenna five-sevenths as long as body; scape one-half again as long as second segment; third as long as second; fourth as long as scape, subequal to fifth and sixth; seventh to last longer, subequal. Prothorax nearly seven-eighths as long as broad, just over five-eighths as broad as elytra, somewhat

evenly rounded at side, not much narrower at apex than at base; disc convex, unevenly impressed with punctures of moderate size, coarser at side. *Scutellum* narrow, rounded apically. *Elytron* broadly rounded, widest slightly anterior to middle; disc impressed with about 10 rows of moderate to strong punctures at middle, mostly one-half to one-third as wide as interspaces, but becoming suddenly minute behind basal three-fifths. *Ventral surfaces* punctured along anterior border of metasternum; abdomen minutely rugulose-punctate. Length 2.3 mm.; breadth 1.2 mm.

FEMALE: More reddish, slightly tinged with pitchy along suture and outer margin of elytron, and on metasternum. Length 2.7 mm.; breadth 1.43 mm.

PARATYPES: Length 2.2–2.8 mm.; breadth 1.14–1.5 mm.

VITI LEVU: Holotype, male (BISHOP 2411), Nandarivatu, 1100 m., beating, Sept. 3, 1938, Zimmerman; allotype, female (BISHOP), Sept. 5. Eight paratypes (BISHOP, BM, US): five paratypes, Sept. 6–10; two Navai-Nasonga trail, 800 m., Sept. 12, 1938, Zimmerman; one Navai Mill, Oct. 13, 1937, Valentine.

Differs from *V. greenwoodi* (Bryant) in being paler, the punctures more regular to behind middle, the elytron not carinate in female, and in the aedeagus tapering gradually to an acute apex instead of narrowing somewhat suddenly before the blunt apex.

33. *Vitibia greenwoodi* (Bryant), n. comb.

Fig. 11c

Nodostoma greenwoodi Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 421, fig. 4 (Lautoka; type in Brit. Mus.).

Nitid; head fulvous; prothorax black with anterior margin broadly fulvous; elytron black with base fulvous; antenna and legs flavous. *Head* impunctate; *antenna* slender, with scape twice as long as second segment, and next three slender and subequal; *pro-*

thorax transverse, slightly rounded at side, strongly but not closely punctured; *scutellum* triangular; *elytron* impressed near humerus, strongly punctate-striate, the punctures rather wide apart, the intervals between the striae at side slightly costate. Length 2.5 mm.

VITI LEVU: Lautoka (type locality). Twelve, Navai-Nasonga trail, 800 m., Sept. 12, 1938, Zimmerman; two, Navai Mill, Nandarivatu, Oct. 13, 1937, Valentine.

OVALAU: One, Andubangda, 450 m., July 15, 1938, Zimmerman.

34. *Vitibia striatipennis* Bryant, n. sp.

Fig. 12a, b

Flavous, seven apical segments of antenna fuscous; elytron with suture and side margin narrowly black, and from shoulder a faint fuscous stria parallel with side margin.

Head flavous, impunctate, a short longitudinal impression between bases of antennae, eye large and prominent. *Antenna* long and slender, extending to middle of elytron; first segment longest and more dilated, about twice as long as second; seven apical segments tinged with fuscous. *Prothorax* flavous, somewhat nitid, with large scattered punctures; side rounded; very slightly broader than long. *Scutellum* triangular, impunctate, fuscous. *Elytron* elongate, rounded at apex, flavous; suture and side margin narrowly black, and from shoulder a faint fuscous stria running parallel to side margin; punctate-striate, the punctures large and widely spaced. *Legs* flavous, middle and posterior pair emarginate at apex of tibia. *Underside* flavous, ventral segments of abdomen with scattered golden pubescence. Length 2.4 mm.; breadth 1.1 mm.

VITI LEVU: Holotype (BISHOP 2412), Nandarivatu, Tholo North, Oct. 18, 1937, Valentine; two specimens. Nandarivatu, 1100 m., Sept. 6, and ridge west of Nandarivatu, 800 m., Sept. 11, 1938, Zimmerman; two specimens. One, Lautoka, Mar. 1955, Krauss.

A very distinct species, its elongate shape somewhat allied to *V. pallipes* Bry.

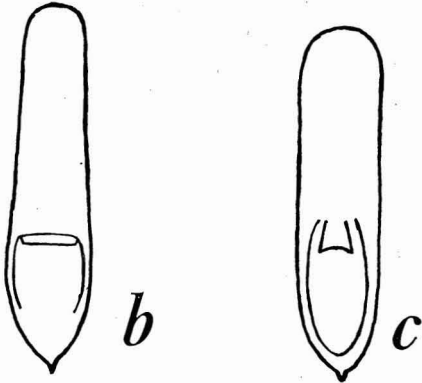
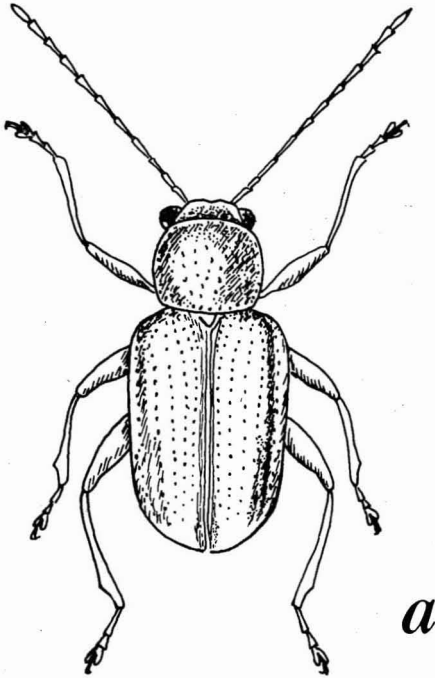


FIG. 12. *a*, *Vitibia striatipennis* Bryant, n. sp., adult; *b*, *Vitibia striatipennis*, aedeagus; *c*, *Vitibia vitiensis*, aedeagus.

35. *Vitibia vitiensis* (Bryant), n. comb.

Fig. 12c

Nodostoma vitiensis Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 512 (Taveuni, Suva; type in Brit. Mus.).

Fulvous; apical half each of last five antennal segments fuscous; elytron entirely fulvous or with varying degrees of black markings, which do not reach humerus or apex. Head impunctate; antenna with scape longer and more swollen than second segment, second to sixth slender and subequal, and seventh to last thicker and subequal; prothorax slightly transverse, rounded at side, with a few irregular punctures; scutellum triangular; elytron with basal half strongly but irregularly punctured in irregular striae, and apical half nearly impunctate; abdominal sternites finely punctured. Length 3 mm.

VITI LEVU: Suva. One, Tholo-i-suva, 150 m., July 25, 1938, Zimmerman; one, Nayavu, Mar. 1951, Krauss.

TAVEUNI: (Type locality.)

MOALA: July 13, 1924, Bryan.

LAU: Vanua Mbalavu I., Sept. 23, 1924, Bryan; Mvava, Vanua Mbalavu, at seashore, Aug. 9, 1938, Zimmerman; Munia I., Aug. 3, 1938, Zimmerman; Mothe I., Aug. 14-16, 1924, Bryan.

HOST: *Gossypium* (cotton).

36. *Vitibia melochiae* Gressitt, n. sp.

Fig. 13a, b

MALE: Pale testaceous, slightly reddish behind eye and on mouth parts. Ventral surfaces and legs with sparse fine pale hairs.

Head nine-tenths as broad as prothorax, about as wide as deep, moderately punctured in middle; occiput finely grooved anteriorly, nearly impunctate. Antenna slender, three-fourths as long as body; scape nearly one-half again as long as second segment, subequal to third, fourth, and fifth; sixth slightly longer; seventh to last subequal, each slightly longer than sixth. Prothorax nearly six-sevenths as long as broad, two-thirds as broad as elytra, subevenly rounded at side, narrower at apex than at base, widest slightly behind middle; disc subfinely and unevenly punctured, most of punctures about one-third as large as interspaces. Scutellum as long as broad, obtuse

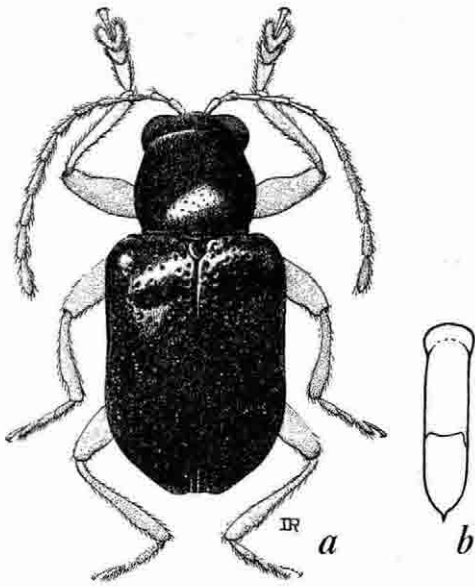


FIG. 13. *a*, *Vitibia melochiae* Gressitt, n. sp., type; *b*, *Vitibia melochiae*, aedeagus.

apically. *Elytron* subparallel-sided in basal two-thirds; disc subregularly punctured in about nine rows, the punctures irregular in size, mostly about two-thirds as wide as interspaces, much smaller in apical third. *Ventral surfaces* nearly impunctate. Length 2.3 mm.; breadth 1.15 mm.

FEMALE: Abdomen pitchy on first four segments. Length 2.6 mm.; breadth 1.4 mm.

PARATYPES: Length 2.3–2.6 mm.; breadth 1.3–1.6 mm.

VANUA LEVU: Holotype, male (BISHOP 2413), Nakawanga, 75 m., on *Melochia*, Oct. 8, 1955, Gressitt; allotype, female (BISHOP), same data; 22 paratypes, (BISHOP, BM, US, CSIRO, CAS), same data.

VITI LEVU: Two, Korovou, Tailevu, Sept. 20, 1937, Valentine; one, Mt. Victoria, 900 m., Sept. 16, 1938, Zimmerman; one, Nandarivatu, 1100 m., Sept. 6, 1938, Zimmerman; one, Tholo-i-suva (Colo-i-suva), June 21, 1924, Bryan; one, Lautoka, Mar. 1955, Krauss.

KANDAVU: One, Drue, Apr. 20, 1941, Krauss.

HOST: *Melochia vitiensis* A. Gray.

Differs from *V. vitiensis* (Bryant) in being slightly smaller, paler, with the pronotal punctures slightly finer, the elytral punctures more regular and continuing farther posteriorly, and the aedeagus more suddenly narrowed before apex.

37. *Vitibia duplicata* Gressitt, n. sp.

Fig. 14a

MALE: Ochraceous, hyaline; legs and antenna testaceous, latter with apices of distal segments slightly darkened. Ventral surfaces and appendages with sparse pale suberect hairs.

Head nine-tenths as broad as prothorax, as wide as deep, moderately punctured at middle; occiput finely grooved anteriorly and minutely punctured; gena short. *Antenna* nearly five-sixths as long as body; scape one-third again as long as second segment; third subequal in length to second, distinctly shorter than fourth; fourth to sixth subequal; seventh and following slightly longer, subequal. *Prothorax* six-sevenths as long as broad, just over seven-tenths as broad as elytra, rounded at side, distinctly narrowed anteriorly, widest well behind middle; disc convex, irregularly punctured, the interspaces one to three times as wide as punctures. *Scutellum* short, rounded

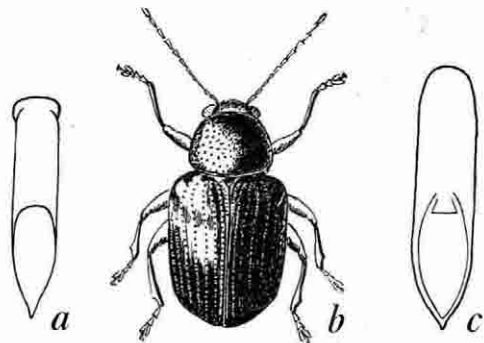


FIG. 14. *a*, *Vitibia duplicata* Gressitt, n. sp., aedeagus; *b*, *Vitibia rufilabris* Bryant, n. sp., type; *c*, *Vitibia rufilabris*, aedeagus.

behind. *Elytron* narrow, subparallel in basal two-thirds; disc punctured in about nine rows, the punctures unequal in size, interspaces from one to three times as wide as punctures, which disappear in apical third. *Ventral surfaces* and appendages with sparse suberect pale hairs. Length 2.3 mm.; breadth 1.1 mm.

PARATYPES: Some slightly reddish, or slightly darkened along suture. Length 2.25–2.5 mm.; breadth 1.1–1.28 mm.

VITI LEVU: Holotype, male (BISHOP 2414), Tholo-i-suva (Colo-i-suva), June 21, 1924, E. H. Bryan, Jr. Four paratypes: Nandarivatu, 1100 m., Sept. 3, Navai-Nasonga trail, west slope, 800 m., Sept. 12, 1938, Zimmerman, and Mt. Victoria, 1100 m., Sept. 10, 1938, Kondo.

Differs from *V. vitiensis* (Bryant) in having the pronotum more narrowed anteriorly more heavily punctured, the elytron punctured farther posteriorly, and the aedeagus being more gradually narrowed and acuminate apically.

38. *Vitibia rufilabris* Bryant, n. sp.

Fig. 14*b, c*

Shining black; labrum, base of antenna, and legs more or less rufous. Prothorax strongly punctured; elytron more finely punctate-striate.

Head and labrum more or less rufous, a few very strong punctures between bases of antennae; basal portion of head impunctate. *Antenna* extending to middle of elytron; basal segments rufous; five apical segments fuscous, each with basal portion fulvous. *Prothorax* shining black strongly punctured; side rounded. *Scutellum* black, nitid, triangular, impunctate. *Elytron* shining black, wider than base of prothorax, sides parallel and rounded to the apex, more finely punctate-striate, becoming almost impunctate towards apex. *Legs* more or less rufous, tarsi paler, middle and posterior tibiae emarginate near apex. *Underside* with the ventral segments of the abdomen fulvous and impunctate. Length 3 mm.

VITI LEVU: Holotype (BISHOP 2415), Nandarivatu, 600 m., Sept. 1, 1938, Zimmerman. Three paratypes: Nandarivatu, Sept. 5, Zimmerman; Nandarivatu, Oct. 18, 1937, Valentine; ridge west of Nandarivatu, 800 m., Sept. 9, 1938, Zimmerman.

Somewhat similar to *R. strigosa* (Bryant), but with no trace of pubescence, and the puncturation of the prothorax much stronger, and the punctate-striae of the elytron much finer.

39. *Vitibia obscura obscura* Gressitt, n. sp.

Fig. 15*a, b*

Dull testaceous to bronzy pitchy, in part paler; head bronzy pitchy, paler on frons; antenna pitchy brown, testaceous on first four segments; pronotum bronzy pitchy, somewhat paler basally and on anterior margin; elytron dull brown, paler behind humerus, darker on margin and blackish along suture; ventral surfaces reddish brown, darker on metasternum; legs testaceous. Antenna, legs, and distal portion of abdomen moderately clothed with oblique goldish hairs.

Head with a few deep punctures on frons and vertex, and a few medially on anterior portion of occiput; eye rounded oval. *Antenna* three-fourths as long as body, slender; first six segments subequal in length except second a little shorter; seventh and following segments longer; last appendiculate. *Prothorax* very slightly broader than long, nearly as broad at apex as at base, moderately and evenly rounded at side; disc rather heavily punctured, the punctures mostly a little smaller than spaces between them. *Scutellum* convex, tapering. *Elytron* subparallel-sided, tapering from end of third fifth; disc with rows of deep punctures which are mostly nearly as large as interspaces; discal rows disappearing on apical declivity. *Ventral surfaces* feebly punctured. Length 2.2 mm.; breadth 1 mm.

PARATYPES: Length 2.1–2.3 mm.; breadth 1–1.2 mm.

40. *Vitibia obscura submetallica*

Gressitt, n. subsp.

Fig. 15c

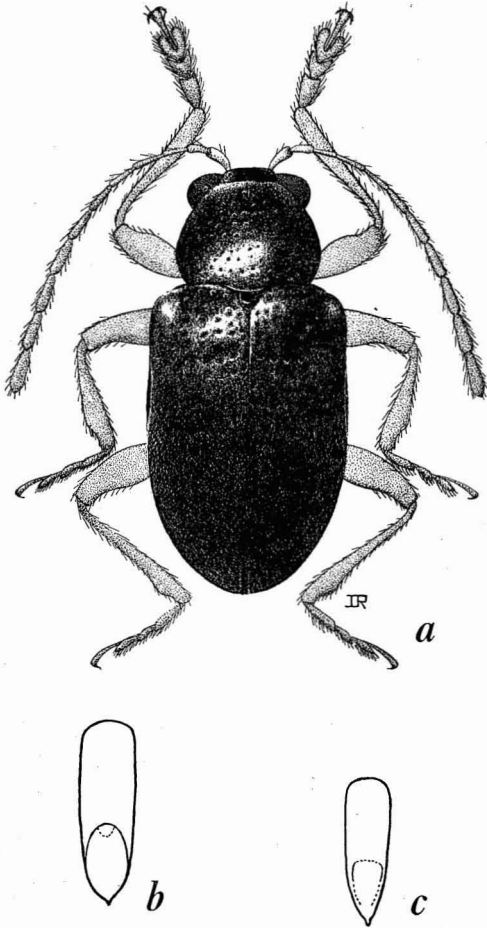


FIG. 15. *a*, *Vitibia obscura obscura* Gressitt, n. sp., type; *b*, *Vitibia obscura obscura*, aedeagus; *c*, *Vitibia obscura submetallica* Gressitt, n. subsp., aedeagus.

VITI LEVU: Holotype (BISHOP 2416), Navai-Nasonga trail, 1000 m., Sept. 12, 1938, Zimmerman; two paratopotypes, same data; four paratypes (one in BM) Nandarivatu, Sept. 2 and 5, and ridge west of Nandarivatu, Sept. 11, 1938, Zimmerman.

Differs from *V. vitiensis* Bryant in being smaller, darker, partly metallic, with much heavier puncturation.

FEMALE: Bronzy black, or pitchy to testaceous; head reddish anteriorly, bronzy black behind; antenna reddish tinged with pitchy; prothorax bronzy blackish, but bronzy testaceous on anterior and posterior borders and along median line; scutellum pitchy; elytron blackish bronzy, testaceous along basal half of suture and on apex; ventral surfaces blackish, becoming brownish towards apex of abdomen; legs testaceous.

Head with a few distinct punctures anteriorly, finely and sparsely punctured on occiput. *Antenna* three-fourths as long as body; first two segments swollen, first one-half again as long as second; third to sixth slender, subequal, each about as long as scape; seventh to last stouter and longer. *Prothorax* four-fifths as long as broad, not distinctly margined laterally, moderately punctured, the punctures mostly one-third or less as large as spaces between them. *Scutellum* narrowed and rounded behind. *Elytron* moderately punctured in regular rows, the punctures mostly smaller than interspaces, and disappearing at beginning of apical third. *Ventral surfaces* feebly punctured. Length 2.8 mm.; breadth 1.6 mm.

VANUA LEVU: Holotype, female (BISHOP 2417), Nakawanga, Oct. 8, 1955, Gressitt; allotype, male, and one paratype, female, same data. Another female, same data, entirely green, somewhat questionably this species.

The coloration varies from almost entirely blackish green, except for antenna and legs, to bronzy ochraceous with sides of prothorax and elytron, and suture, darker.

Differs from *V. obscura* in being darker and more metallic, and in having the pronotum more finely punctured, and the elytron with punctures lacking posteriorly.

41. *Vitibia bryanti* Gressitt, new name

Fig. 16a

Vitibia vitiensis Bryant, 1945 (nec *Nodostoma vitiensis* Bryant, 1942), Ann. and Mag. Nat. Hist. Ser. 11, 12: 424, fig. 7 (Fiji; type in Brit. Mus.).

Reddish ochraceous, paler on antenna, legs and abdomen. Head impunctate except on frons and middle of vertex; prothorax nearly impunctate, distinctly rounded at side; elytron with very short basal rows of punctures and only sutural and marginal row continuing to apex. Length 2.9–3.3 mm.

VITI LEVU: Tholo-i-suva, Aug., Mt. Victoria (type loc.), Sept. 1938, Zimmerman, nine specimens, at 150–1200 m.; also Lever.

HOST: *Agapetes vitiensis* leaf, at 1300 m.; Lever.

42. *Vitibia testacea* Gressitt, n. sp.

Fig. 16b

MALE: Ochraceous, subhyaline; slightly dull on parts of head and antenna. Ventral surfaces and appendages with sparse pale hairs.

Head seven-eighths as broad as prothorax, not quite as wide as deep, deeply punctured in middle; occiput feebly grooved anteriorly, indistinctly punctured. Antenna five-sixths as long as body, rather slender; scape one-fourth longer than second segment; third slightly longer than second; fourth longer than third, subequal to fifth; sixth slightly shorter; seventh to last longer, subequal. Prothorax seven-eighths as long as broad, more than five-eighths as broad as elytra, subevenly rounded at side, hardly narrower at apex than at base; disc feebly convex on central portion, with irregularly arranged punctures of varying sizes, mostly fairly strong, but smaller than interspaces, about eight in an approximate median line. Scutellum narrow, rounded-subacute apically. Elytron barely more than twice as long as prothorax, subparallel in basal two-thirds; disc convex, with a subbasal swelling,

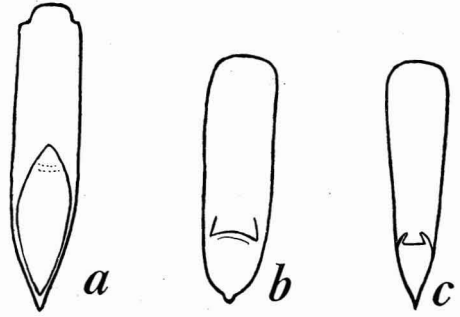


FIG. 16. a, *Vitibia bryanti* Gressitt, n. n., aedeagus; b, *Vitibia testacea* Gressitt, n. sp., aedeagus; c, *Vitibia virida* Gressitt, n. sp., aedeagus.

incompletely punctured in 11 rows at middle, the punctures varying in size from larger to much smaller than interspaces, and disappearing in apical third. Ventral surfaces impunctate on metasternum, finely punctured on abdomen. Length 2.8 mm.; breadth 1.3 mm.

PARATYPES: Length 2.6–3.3 mm.; breadth 1.2–1.4 mm.

VITI LEVU: Holotype, male (BISHOP 2413), Nandarivatu, 1100 m., Sept. 6, 1938, Zimmerman. Two paratopotypes, Sept. 10, 1938, Zimmerman. Another, Mt. Victoria, 900 m., Sept. 16, 1938, Zimmerman, has the prothorax shorter and more coarsely punctured.

OVALAU: One, Andubangda, 400 m., July 15, 1938, Zimmerman.

Differs from *V. bryanti* Gressitt in being smaller, narrower, with the prothorax more rounded at side, less narrowed anteriorly, and more heavily punctured, and the elytron paler and a little more heavily punctured.

43. *Vitibia virida* Gressitt, n. sp.

Fig. 16c

MALE: Metallic green above, tinged in part with pitchy reddish on head and humerus; ventral surfaces pitchy on hind thorax, becoming testaceous towards end of abdomen; antenna dull reddish; legs testaceous with

distal portions of fore femur pitchy. Abdomen, legs, and antenna with sparse suberect pale hairs.

Head nearly six-sevenths as broad as prothorax, about as wide as deep, moderately punctured in center; occiput finely grooved and hardly punctured. *Antenna* slender, four-fifths as long as body; scape two-thirds again as long as second segment; third a little longer than second, distinctly shorter than fourth; fifth equal to fourth, slightly longer than sixth; seventh to last longer, stouter, subequal. *Prothorax* slightly longer than broad, nearly two-thirds as broad as elytra, evenly rounded at side, widest at middle, barely narrower at apex than at base; disc convex, subevenly punctured, the punctures mostly about one-third as large as interspaces in center, and larger and closer at side. *Scutellum* small, rounded at side and obtuse apically. *Elytron* slightly more than twice as long as prothorax, slightly broadened behind middle, where it is somewhat inflated at top of lateral declivity; disc convex, somewhat regularly punctured in nine rows at middle, the punctures mostly about one-half as wide as interspaces, and suddenly becoming minute at end of second third. *Abdomen* feebly rugulose-punctate. Length 2.5 mm.; breadth 1.13 mm.

FEMALE: Length 2.4 mm.; breadth 1.34 mm.

VITI LEVU: Holotype, male (BISHOP 2419), Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman; allotype, female, Lami Quarry, near Suva, May 1951, Krauss. Three paratypes: Nandarivatu, Sept. 10, 1938, Zimmerman, Lami Quarry, May 1951 and Mar. 1955, Krauss.

Differs from *V. obscura submetallica* Gressitt in being almost uniformly metallic greenish above, in having the prothorax longer, symmetrical antero-posteriorly, and the aedeagus with terminal orifice proportionately shorter

in relation to distance to bend, and apex a little more acuminate.

44. *Vitibia dimorpha* Gressitt, n. sp.

Fig. 17a, b

FEMALE: Pale ochraceous, marked with pitchy brown; head testaceous; antenna testaceous on first three segments, remainder pitchy with bases reddish; prothorax pale ochraceous with median line broadly pitchy, the line slightly broadened at middle; elytron pitchy reddish brown with a slight bronzy tinge, pale ochraceous on extreme base, testaceous on humeral ridge from behind humerus nearly to middle; ventral surfaces testaceous, duller at side of abdomen; legs testaceous. Legs and ventral surfaces sparingly clothed with short oblique goldish hairs; denser hairs on antenna.

Head sparsely and distinctly punctured on frons and vertex, slightly grooved on occiput; frons as deep as wide between antennal insertions. *Antenna* fully three-fourths as long as body, slender; first six segments subequal in length except second and third slightly shorter; seventh and following longer and slightly

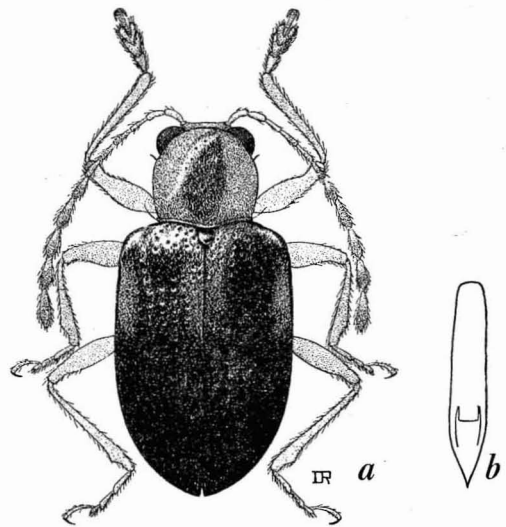


FIG. 17. a, *Vitibia dimorpha* Gressitt, n. sp., type; b, *Vitibia dimorpha*, aedeagus.

thicker; last appendiculate. *Prothorax* nearly as long as broad, almost as broad apically as basally, evenly rounded at side, distinctly rounded in outline of anterior margin; disc with deep punctures mostly separated by twice their diameters. *Scutellum* trapeziform, rounded behind. *Elytron* slightly broadened to just behind middle, then narrowed, distinctly carinate from humerus to middle; disc with regular rows of deep punctures, mostly as large as interspaces, the punctures suddenly becoming obsolete at end of third fifth, except for two outer rows and sutural row. *Ventral surfaces* feebly punctured. Length 2.65 mm.; breadth 1.35 mm.

MALE: *Elytron* not distinctly carinate behind humerus. Length 2.25 mm.; breadth 0.92 mm.

PARATYPES: Length 2.1–2.95 mm.; breadth 0.85–1.4 mm.

VITI LEVU: Holotype, female (BISHOP 2420), forest near Samabula, near Suva, Feb. 6, 1952, Gressitt, possibly on *Commersonia*; allotype, male (BISHOP), same data; eight paratypes (BISHOP, BM, USNM, CSIRO), same data. One female (BISHOP), Lami Quarry, near Suva, May 1951, Krauss. One male, Mt. Kcrombamba, 400 m., Aug. 1, 1938, Zimmerman.

Differs from *V. bryanti* Gressitt in being smaller, with dark and pale contrasted markings, with much heavier puncturation, and with the elytron carinate behind humerus in female.

45. *Vitibia pallipes* Bryant, n. sp.

Fig. 18

Narrowly elongate, metallic greenish black, legs long and slender; flavous, prothorax strongly but not closely punctured; elytron punctate-striate.

Head impunctate, frontal half flavous, basal half greenish black and nitid. *Antenna* long and slender, extending beyond middle of elytron; four basal segments fulvous, remainder black; two basal segments thickened; first twice as long as second. *Prothorax* shin-

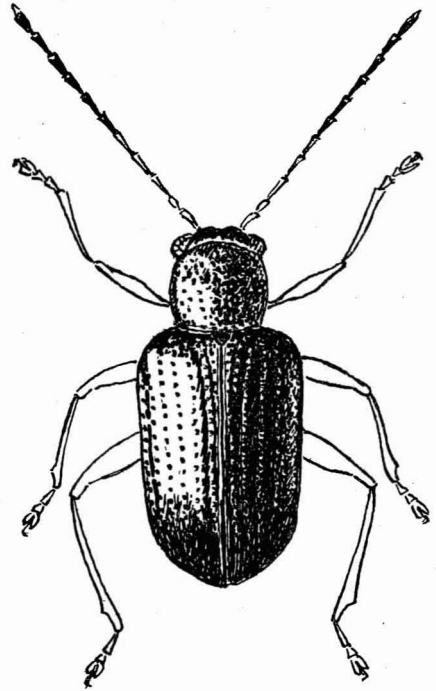


FIG. 18. *Vitibia pallipes* Bryant, n. sp.

ing, greenish black, about as broad as long; side slightly rounded, strongly but not closely punctured. *Scutellum* greenish black, triangular, nitid and impunctate. *Elytron* greenish black, wider than base of prothorax, elongate, sides parallel, rounded at apex, strongly punctate-striate, less so towards apex. *Legs* flavous, long and slender, middle and posterior tibiae emarginate near apex. *Underside* entirely flavous. Length 2.5 mm.

VITI LEVU: Holotype, female (BISHOP 2421), Mt. Victoria, west slope, 1000 m., Tholo North, beating, Sept. 13, 1938, Zimmerman; one specimen.

Somewhat allied to *V. bryanti* Gressitt, but the color different, more elongate and narrower, and more strongly punctured.

Genus STYGNOBIA Weise

Stygnobia Weise, 1922, Arch. f. Naturgesch. 88 A (10): 154 (type: *S. cauta* Weise; Samoa).

Ovate, compact; eye small; antenna slender, flattened distally; prothorax transverse, nearly as broad as elytral base; elytron irregularly punctured; dorsum pubescent; middle tibia emarginate preapically; hind tibia hardly emarginate; claws bifid.

Except for Fiji, this genus has been recorded only from Samoa. The Fijian species are rather dissimilar in size and appearance from the type of the genus, but some of the Samoan species seem to be intermediate. The Fijian species resemble *Trichostola* in appearance, and in some characters, but probably belong more properly in *Stygnobia*.

KEY TO FIJIAN SPECIES OF *Stygnobia*

- 1. Body largely reddish or purplish brown to slightly metallic. 2
 Body generally metallic greenish or bluish. 4
- 2(1). Reddish brown, rarely almost pitchy; prothorax nearly as broad as elytra, closely punctured, but not subrugose; length 2 mm. 3
 Purplish brown to pitchy; prothorax narrower than elytra, very densely punctured; length 3 mm. **evansi**
- 3(2). Dorsum generally with golden pubescence, which is fairly brief on pronotum; central and basal portions of pronotal disc with interpunctural areas raised, almost ridge-like, and the punctures somewhat in rows converging towards center of base. **oconnori**
 Dorsum with white pubescence, which is rather long on pronotum and side of middle of elytron; central and basal portions of pronotal disc with interpunctural areas fairly flat, and the punctures somewhat in longitudinal rows which do not converge. **albisetia**
- 4(1). Prothorax rather distinctly margined at side. 5
 Prothorax somewhat feebly margined at side, very closely punctured; elytron

a little less densely punctured; blackish to greenish or bluish; length 2–2.4 mm. **metallica**

- 5(4). Length less than 2.5 mm. 6
 Length more than 2.5 mm.; purplish bronzy above, with silvery to golden pubescence; legs, including femora, generally reddish. **elliptica**
- 6(5). Elytron somewhat vertical at side, more or less ridged behind humerus; pronotum very densely punctured. 7
 Elytron almost evenly declivitous at side, hardly ridged behind humerus; prothorax distinctly narrowed and declivitous anteriorly at side; pronotum rather finely punctured; body length less than 2 mm. **nandarivatu**
- 7(6). Prothorax about as broad as elytra, rather distinctly pubescent; dorsum generally green to golden green.
 **leverii**
 Prothorax slightly narrower than elytra, feebly pubescent; dorsum generally bronzy. **ovalaua**

46. *Stygnobia evansi* (Bryant) n. comb.

Trichostola evansi Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 510 (Bucalevu; type in Brit. Mus.).

Metallic with a purple tinge above, black beneath; clothed with fine gray pubescence; six basal antennal segments flavous; tibiae and tarsi fulvous. *Head* finely punctured, a transverse impression between eyes; *antenna* slender, third to sixth segments slender and subequal, last longest and acuminate; *prothorax* transverse, rounded at side, strongly and evenly punctured, clothed with fine pubescence; *elytron* parallel-sided, rounded apically, strongly and evenly punctured, clothed with fine gray pubescence, a slight depression below humerus. Length 2.5 mm.

VITI LEVU: Naivithula, Tailevu, Sept. 1937, Valentine; Nandarivatu, Sept., Tholo-i-suva and Belt road 25 km. west of Suva, July 1938,

Zimmerman; Suva, Feb. 1952, Gressitt; Raki Raki, Jan. 1955, Lami, Mar. 1951, Krauss. Thirty-seven specimens.

OVALAU: Andubangda and Draiba trail July 1938, Zimmerman.

TAVEUNI: Buthalevu.

LAU: Avea, Sept. 1924, Bryan.

47. *Stygnobia oconnori* Gressitt, n. sp.

Fig. 19a

Reddish ochraceous brown, slightly tinged with bronze above, paler ochraceous beneath and on appendages. Dorsum distinctly clothed with posteriorly curved silvery white hairs, part of which appear somewhat golden in certain lights.

Head two-thirds as broad as prothorax, moderately punctured, more densely so on posterior portion of occiput, and postocciput. *Antenna* nearly three-fourths as long as body, not very stout, gradually thickened from third segment; third segment barely as long as second, subequal to next two; remainder slightly longer. *Prothorax* more than four-fifths as long as broad, distinctly rounded at side, widest just behind middle, distinctly narrower apically than basally, slightly narrower than elytra; disc deeply, closely, and subrugosely punctured, the punctures partly sublongitudinal, or arranged longitudinally, in central portion. *Scutellum* small, narrow, narrowed and subrounded behind. *Elytron* short, subparallel in basal two-thirds, strongly convex, deeply and closely, and only in part subseriately punctured on basal half, much more finely and sparsely punctured on posterior half. *Ventral surfaces* deeply punctured in a few rows on metasternum, somewhat rugose on abdomen. Length 1.76 mm.; breadth 1.06 mm.

PARATYPES: Length 1.65–2.2 mm.; breadth 1–1.2 mm.

OVALAU: Holotype (BISHOP 2425), Andubangda, 400 m., beating, July 15, 1938, Zimmerman.

VITI LEVU: Nandarivatu, 1100 m., Sept. 3, Mt. Victoria, 1000 m., Sept. 13, Tholo-i-suva,

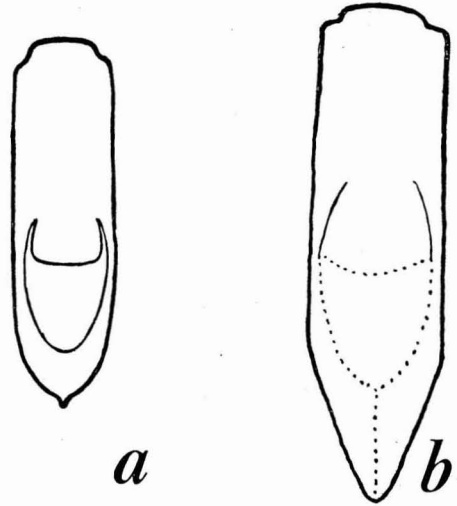


FIG. 19. *a*, *Stygnobia oconnori* Gressitt, n. sp., aedeagus; *b*, *Stygnobia albiseta* Gressitt, n. sp., aedeagus.

150 m., July 21, Navai-Nasonga trail, 1000 m., Sept. 12, 1938, Zimmerman. Natubakula, near Singatoka, Apr. 19, 1941; Lami Quarry, near Suva, May 1951, Krauss; Tholo-i-suva, Apr. 1951, Krauss.

VANUA LEVU: Nakawanga, 75 m., Oct. 9, 1955, Gressitt.

LAU: Buthalevu, 75 m., Aug. 10, Mbavatu, Aug. 16, 1938, Vanua Mbalavu I., Zimmerman.

A total of 19 paratypes.

Differs from *S. evansi* (Bryant) in being much shorter, paler, less purplish, less rugose, less regularly punctured, and with the prothorax relatively broader. Named for B. A. O'Connor, Senior Entomologist, Fiji, as a token of appreciation for kindnesses tendered.

48. *Stygnobia albiseta* Gressitt, n. sp.

Fig. 19b

MALE: Reddish brown; testaceous on front of head, antenna, and legs; head and pronotum very slightly bronzy. Body clothed above with fairly long, arched, whitish hairs, which are particularly long on pronotum and side of elytron; ventral surfaces more sparsely and briefly clothed with less whitish hairs.

Head deeply and somewhat closely punctured, flat on frons, slightly concave on anterior portion of occiput, grooved above eye. *Antenna* two-thirds as long as body, most segments thickened preapically; scape a little longer than second; third more slender than second, subequal in length; fourth slender, subequal to third; fifth longer; sixth and following stouter. *Prothorax* as broad as elytral bases, rounded at side, not quite three-fourths as long as broad; disc evenly convex, deeply punctured, the punctures closer than interspaces. *Scutellum* narrowed and rounded, slightly punctured. *Elytron* fully twice as long as prothorax, broadest near middle, strongly convex, deeply, closely, and in part subseriately punctured. *Ventral surfaces* deeply punctured on metasternum, feebly punctured on abdomen. Length 2.14 mm.; breadth 1.28 mm.

PARATYPES: Length 1.8–2 mm.; breadth 1.1–1.2 mm.

CENTRAL FIJI: Holotype, male (BISHOP 2454) Naroi, 300 m., Moala I., Aug. 24, 1938, beating shrubs, Zimmerman. Three paratopotypes (BISHOP, BM), same data.

Differs from *S. oconnori* Gressitt in having whiter and longer hairs, particularly on the pronotum, and in having the pronotal interspaces fairly flat, not ridge-like, and with the punctures on mid-basal portion of pronotum in parallel longitudinal rows, instead of converging rows.

49. *Stygnobia metallica* Bryant

Stygnobia metallica Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 425, fig. 8 (Taveuni; type in Brit. Mus.).

Dark metallic green, clothed with gray pubescence; antenna flavous with last two segments fuscous; fore and mid tibia flavous, each with basal third dark green; hind tibia flavous with basal half dark green. *Head* strongly but not closely punctured, frons almost impunctate; *antenna* slender, reaching middle of elytron, with first segment slightly

longer than second, third subequal to second, fourth longer than third; *prothorax* strongly and closely punctured, widest at base, and side contracted anteriorly from middle and feebly margined; *scutellum* subquadrate; *elytron* irregularly punctate-striate, side tapering from behind middle to apex; meso- and metasterna strongly punctured; abdominal sternites more finely punctured and pubescent. Length 2.35 mm.

VITI LEVU: Nandarivatu, 950 m., Sept., Navai Mill, Sept. 17, Tholo-i-suva, July 27, 1938, Zimmerman. Lami Quarry, near Suva, May 1951, Krauss.

OVALAU: Andubangda, 300–450 m., Aug. 18, 1938, Zimmerman.

VANUA LEVU: Nakawanga, 75 m., Oct. 8, 1955, Gressitt.

TAVEUNI: Type locality (Crater Lake).

50. *Stygnobia elliptica* Gressitt, n. sp.

Fig. 20a, b

Bronzy with a purplish tinge above; scutellum greenish; venter pitchy tinged with purplish or bluish; appendages reddish ochraceous, slightly darker on apex of hind femur and somewhat pitchy brown on distal three-fifths of antenna. Dorsum distinctly clothed with curved, oblique golden hairs, appearing silvery in certain lights, particularly towards side.

Head five-eighths as broad as prothorax, subvertical and almost plane in front, moderately punctured, more heavily so on occiput, nearly ridged on postocciput. *Antenna* three-fifths as long as body, subcylindrical, narrowed in third to sixth segments; second to seventh segments subequal in length. *Prothorax* five-sevenths as long as broad, practically as broad as elytra, moderately narrowed and declivitous anteriorly at side; disc heavily, but not very deeply, punctured, the punctures for most part distinctly wider than interspaces. *Scutellum* subsquarish, obtuse behind. *Elytron* fully twice as long as prothorax, somewhat vertical at side, convex above, rather closely and irregularly punctured, the punctures form-

ing somewhat oblique longitudinal lines on central portion, mostly about as broad as interspaces on basal half, much finer posteriorly. *Ventral surfaces* deeply punctured on metasternum, more finely punctured on remainder. Length 2.7 mm.; breadth 1.5 mm.

VITI LEVU: Holotype (BISHOP 2426), Nandarivatu, 1100 m., beating shrubbery, Sept. 10, 1938, Zimmerman. Four paratypes (BISHOP, BM): Nandarivatu, Sept. 6-10, Mt. Korombamba, 400 m., Aug. 1, and Tholo-i-suva, 150 m., July 25, 1938, Zimmerman.

Differs from *S. leverii* (Bryant) in being longer, more bronzy, with more golden pubescence, and in closer pronotal puncturation.

51. *Stygnobia nandarivatu* Gressitt, n. sp.

Fig. 20c

Metallic green, with a slightly golden tinge, above; purplish pitchy beneath; antenna testaceous, becoming slightly pitchy beyond middle; legs testaceous. Dorsum distinctly clothed with posteriorly arched silvery white hairs, in some lights appearing slightly golden.

Head four-sevenths as broad as prothorax, rather broad and flat between antennal insertions and eyes, sparsely punctured, a little more coarsely punctured towards postocciput.

Antenna three-fourths as long as body; first two and last five segments moderately thickened; scape distinctly longer than second segment; third about as long as second, slightly shorter than fourth; fourth to sixth subequal; seventh and following slightly longer. *Prothorax* four-sevenths as long as broad, as broad as elytral base, distinctly narrowed and declivitous at side, anteriorly; rounded at side, but hardly wider at any point than at base; disc deeply impressed with moderate-sized punctures which are mostly about as large as spaces between them. *Scutellum* narrowed and obtuse posteriorly, distinctly punctured basally. *Elytron* more than twice as long as prothorax, subevenly rounded in external outline, widest a little anterior to middle; disc deeply and distinctly punctured, the punctures only vaguely arranged in rows on

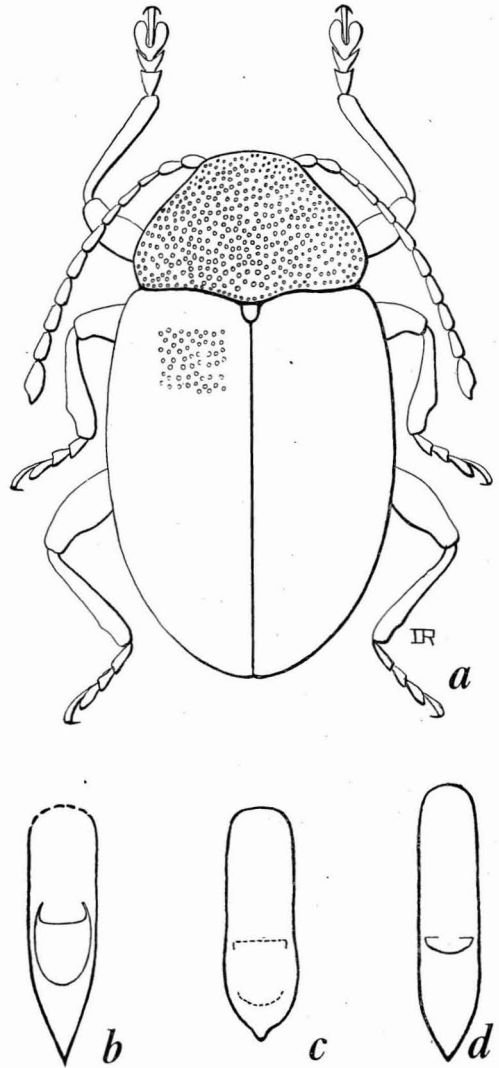


FIG. 20. a, *Stygnobia elliptica* Gressitt, n. sp., type; b, *Stygnobia elliptica*, aedeagus; c, *Stygnobia nandarivatu* Gressitt, n. sp., aedeagus; d, *Stygnobia ovalaua* Gressitt, n. sp., aedeagus.

basal half, where most of them are about as large as interspaces, and much sparser, finer, and less regular on posterior half. *Ventral surfaces* with only a few punctures on metasternum, and some vague wrinkling or minute punctures on abdominal sternites. Length 1.85 mm.; breadth 1.05 mm.

PARATYPES: Length 1.65–2 mm.; breadth 0.95–1.1 mm.

VITI LEVU: Holotype (BISHOP 2427), Nandarivatu, Jan. 1955, Krauss. Six paratopotypes (BISHOP, BM, US), Oct. 18, 1937, Valentine; Sept. 14, 1938, 800 m., Zimmerman; Jan. 1955, Krauss.

Differs from *S. leverii* (Bryant) in having the elytron evenly convex and declivitous at side, and not vertical and ridged behind humerus, as well as the prothorax more narrowed anteriorly. The dorsum is entirely golden green and the legs are entirely pale.

52. *Stygnobia leverii* (Bryant), n. comb.

Trichostola leverii Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 511 (Nandarivatu; Taveuni; type in Brit. Mus.).

Cupreous above, black beneath; pubescent; first six antennal segments and legs flavous. Head strongly punctured and pubescent; antenna slender, with last five segments slightly thickened; prothorax strongly punctured and clothed with fine pubescence, strongly transverse, rounded at side; scutellum subquadrate; elytron strongly punctured, the punctures irregular, clothed with gray pubescence; meso- and metasternum strongly punctured; abdominal sternites almost impunctate. Length 2 mm.

VITI LEVU: Nandarivatu (type locality). Ridge west of Nandarivatu, Sept. 11, Mt. Korombamba, Aug. 1, Tholo-i-suva, Aug. 21, Belt road, 60 km. west of Suva, July 23, 1938, Zimmerman. Lami Quarry, near Suva, Mar., May 1951, Krauss. Near Suva, Feb. 6, 1952, Gressitt.

OVALAU: Andubangda, July 15, 1938, Zimmerman.

VANUA LEVU: Daku road, 12 km. east of Lambasa, on *Alphitonia* and *Glochidion*, Oct. 6, Navukuru to Nakawanga, Oct. 7, Nakawanga, on *Couthovia*, *Pipturus*, and *Alphitonia*, Oct. 8, 1955, Gressitt.

TAVEUNI: Near Buthalevu; Waiyevo.

HOSTS: *Alphitonia zizyphoides* (Spreng.) A.

Gray; *Glochidion cordatum* (Muell. Arg.) Seem.; *Couthovia corynocarpa* A. Gray; *Pipturus argenteus* var. *lanosus* Skottsdb.

53. *Stygnobia ovalaua* Gressitt, n. sp.

Fig. 20d

Metallic greenish black, slightly bronzy on pronotum, somewhat purplish on elytron, particularly at side; antenna testaceous except for last segment which is pitchy; legs purplish pitchy, testaceous on tarsi and apices of tibiae. Body moderately clothed with curved, posteriorly directed silvery hairs.

Head five-sevenths as broad as prothorax, fairly smooth and even, moderately punctured, more densely so on postocciput. Antenna nearly three-fourths as long as body, thickened basally and distally, very slender in third to sixth segments; scape a little longer than second; third slightly shorter than second and fourth; last longest. Prothorax about three-fourths as long as broad, somewhat evenly rounded at side, slightly narrower at apex than at base, slightly narrower than elytra; disc heavily punctured, the punctures mostly as wide as interspaces. Scutellum suboblong, obtuse behind. Elytron broadest near middle, distinctly narrowed posteriorly, vertical at side, somewhat ridged behind humerus; disc unevenly punctured, the punctures rather small, close and irregular on sutural half of basal portion, much stronger, and subseriate on humeral half of base, and much sparser and mostly irregular on posterior half. Ventral surfaces deeply punctured in rows on metasternum, feebly rugulose on abdomen. Length 2.08 mm.; breadth 1.17 mm.

OVALAU: Holotype, female (BISHOP 2428), Andubangda, 600 m., July 15, 1938, Zimmerman. Five paratopotypes (BISHOP, BM), same data.

MOALA: One, Naroï, 200 m., Aug. 24, 1938, Zimmerman.

VITI LEVU: One specimen, Tholo-i-suva, July 27, 1938, Zimmerman; another, possibly

this species, Nandarivatu, Sept. 6, 1938, Zimmerman.

Differs from *S. leveri* (Bryant) in having the prothorax narrower than the elytra, and more deeply and less closely punctured, the elytron a little more heavily punctured, and the dorsum more bronzy and more feebly pubescent.

EPINODOSTOMA Gressitt, new genus

Head deep, strongly raised on occiput, with a deep groove bordering upper half of eye; antenna distinctly thickened in distal half; prothorax feebly margined at side, slightly narrower than elytra, nearly as long as broad; elytra parallel, rounded apically, regularly seriate-punctate with one or two extra scutellar rows; middle and hind tibiae emarginate preapically on outer sides; tarsal claws bifid or toothed. Type: *Epinodostoma alocasiae* Gressitt, n. sp.

This genus differs from *Nodostoma* in being more slender, in having a deep groove above the eye, and in having the prothorax hardly margined laterally. Heretofore, the tarsal claw character—bifid (branched) or appendiculate (toothed basally)—has been considered of tribal value in this subfamily. However, though the following two species seem to differ on this point, they are otherwise extremely closely related. This fact, and other problems encountered in this study, indicate that this character has received undue importance, or that other generic characters have been overlooked.

54. *Epinodostoma alocasiae*

Gressitt, n. sp.

Fig. 21

Shiny black with a purplish bronzy tinge, particularly on elytron; basal half of antenna, and much of tibiae and tarsi reddish. Glabrous on elytron, with very fine subrecumbent hairs on pronotum, and with sparse suberect hairs on ventral surfaces.

Head three-fourths as broad as prothorax, deeper than wide, with moderately strong

punctures, and a deep groove bordering upper half of eye; occiput strongly raised above. Antenna three-fifths as long as body, moderately stout except for third to sixth segments which are slender; scape a little longer than second; third subequal to scape, fifth, and sixth; fourth slightly longer; seventh to last each a little longer than fourth. Prothorax nearly seven-eighths as broad as long, more than seven-eighths as broad as elytra, rounded at side, slightly narrower at apex than at base, broadest one-third from base, strongly convex; anterior portion strongly raised, and also strongly convex in dorsal outline of anterior margin; lateral margin barely perceptible; disc deeply and subregularly punctured, with roughly 15 punctures along an approximate median line. Scutellum slightly longer than broad, narrowed and subrounded apically. Elytron two and one-fourth times as long as prothorax, subparallel-sided in slightly more

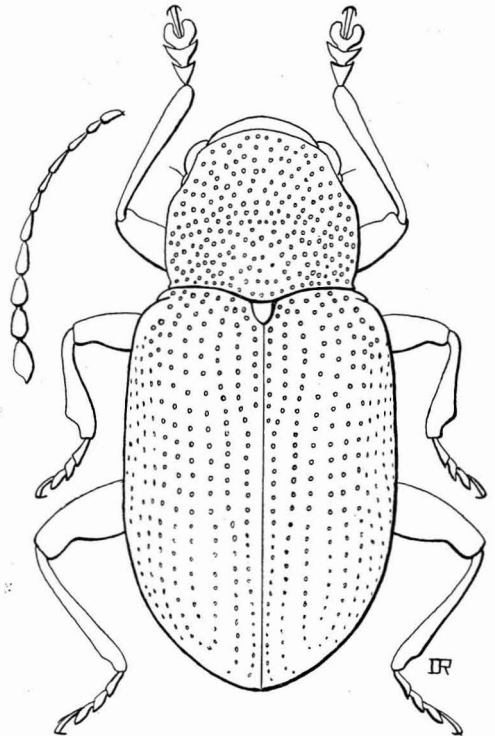


FIG. 21. *Epinodostoma alocasiae* Gressitt, n. sp.

than basal half, moderately narrowed posteriorly, strongly and subevenly convex, nearly vertical at side; disc regularly punctured in 11 rows at middle, with an extra scutellar row and an extra subhumeral row basally; punctures deep, distinct to apex, mostly separated longitudinally by spaces subequal to their diameters. *Metasternum* moderately punctured; abdominal sternites finely and irregularly punctured. Tarsal claws apparently bifid. Length 2.2 mm.; breadth 1.07 mm.

PARATYPES: Length 2.05–2.1 mm.; breadth 1–1.1 mm.

VANUA LEVU: Holotype, female (BISHOP 2422), Nakawanga, 50 m., central Vanua Levu, on *Alocasia*, Oct. 9, 1955, Gressitt; two female paratopotypes, same data.

HOST: *Alocasia macrorrhiza* (L.) Schott.

Differs from the following species in being smaller, more metallic, with the prothorax broader and more finely punctured, and the elytron more purplish and more finely punctured, and with one instead of two extra scutellar puncture-rows.

55. *Epinodostoma elongata* Bryant, n. sp.

Fig. 22a, b

Elongate, black, with metallic sheen, prothorax closely punctured, rounded at side. Elytron more strongly punctate-striate. Antenna and legs deep fulvous to pitchy.

Head metallic black, finely and closely punctured, with a median depression. Antenna extending almost to middle of elytron, deep fulvous; five apical segments slightly thickened. Prothorax about as broad as long, the sides feebly rounded; metallic, black, closely punctured. Scutellum small, triangular, impunctate. Elytron elongate, parallel-sided and rounded at apex, metallic, black, strongly punctate-striate. Legs deep fulvous; femora darker than tibiae; tarsal claws appendiculate. Length 2–2.5 mm.

VITI LEVU: Holotype (BISHOP 2423), Mt. Victoria, Tholo North, Sept. 13, 1938, beating shrubby, Zimmerman; nine specimens.

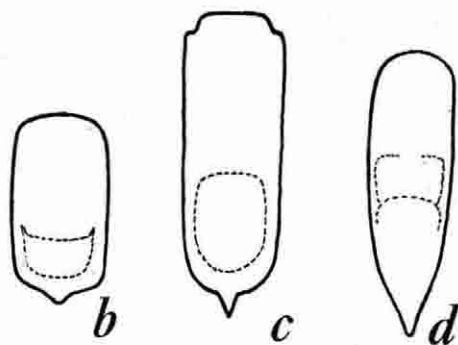
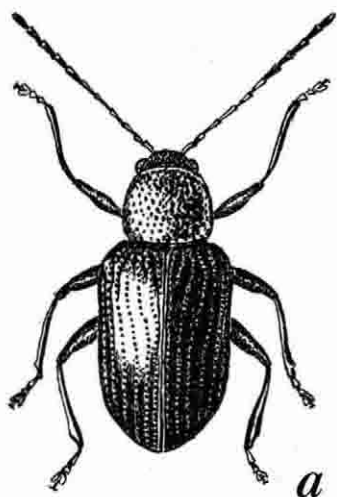


FIG. 22. a, *Epinodostoma elongata* Bryant, n. sp., type; b, *Epinodostoma elongata*, aedeagus; c, *Stethotes rufipes*, aedeagus; d, *Stethotes setosa* Gressitt, n. sp., aedeagus.

Somewhat similar to *V. pallipes* Bryant on account of its narrow elongate form, but the color of the legs very distinctive.

(TYPOPHORINI)

Genus EURYDEMUS Chapuis

Eurydemus Chapuis, 1874, Gen. Col. 10: 333 (type *E. insignis* Chapuis; Australia). Lefevre, 1885, Soc. Sci. Liege, Mem. Ser. 2, 11: 136.

Body large; head broad; antenna long and slender; prothorax narrowed anteriorly, dis-

tinctly margined; scutellum rounded; elytron striate-punctate; humerus prominent; femora swollen and toothed beneath; tarsi broad.

The following two species have been united, but appear quite distinct on the basis of material before us.

KEY TO FIJIAN SPECIES OF *Eurydemus*

1. Elytral punctures in regular, widely spaced longitudinal rows; dark reddish castaneous **grandis**
Elytral punctures larger, in numerous partly irregular rows, without broad smooth interpunctural strips; paler, somewhat brick-red **insignis**

56. *Eurydemus grandis* (Baly)

Rhyparida grandis Baly, 1861, Jour. Ent. 1: 287 (New Caledonia).

Eurydemus grandis Baly, 1878, Linn. Soc. London, Jour. 14: 259.

Bright reddish, dark on distal portion of antenna, on tarsi, and parts of tibiae and on femoral apices. *Head* finely and closely punctured; *antenna* slender, segments subequal in length except second and third segments shorter, with second two-thirds as long as third; *prothorax* finely and fairly closely punctured; *elytron* regularly punctured in slightly sinuous, but even, rows, the interspaces between rows mostly twice as wide as punctures. Length 9–10.8 mm.; breadth 5–5.8 mm.

OVALAU: Wainiloka, Sept. 29, 1937, Valentine.

VANUA LEVU: Nakawanga, on *Phaleria* and *Flacourtia*, Oct. 9, 1955, Gressitt.

KANDAVU: Wai Salima and Ndavingeile, Apr. 1941, Krauss.

HOSTS: *Terminalia* leaf (Lever); *Phaleria acuminata* (A. Gray) Gilg (?), and *Flacourtia vitiensis* (Seem.) A. C. Smith.

57. *Eurydemus insignis* Chapuis

Eurydemus insignis Chapuis, 1874, Gen. Col. 10: 334, note 1, pl. 122, fig. 4 (Australia);

Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 482 (Fiji).

Bright reddish brown, tinged in part with pitchy; somewhat brick-red on elytron. *Head* finely and somewhat closely punctured; *antenna* slender, segments subequal in length except second shorter; *prothorax* finely, but not very closely, punctured; *elytron* somewhat heavily punctured, but the punctures partly irregular, only in part forming regular rows. Length 11 mm.; breadth 5.5 mm.

TAVEUNI: Ngathabula (Qacabula) on *Tabernaemontana*, Nov. 1937, Valentine.

HOST: *Tabernaemontana* sp.

Genus STETHOTES Baly

Stethotes Baly, 1867, Ent. Soc. London, Trans. Ser. 3, 4: 254 (type here designated as *Pyropida elegantula* Baly, 1864; Amboina).

Ovate, strongly convex; eye entire, strongly swollen; prothorax narrower than elytra, distinctly narrowed anteriorly, feebly margined at side; elytron strongly narrowed posteriorly; femora swollen, generally toothed beneath (not so in Fijian species). The following may require a new genus.

KEY TO FIJIAN SPECIES OF *Stethotes*

1. Pronotum striate-punctate near anterior border; pronotum with more than 15 punctures in an approximate longitudinal median row; elytron with a few regular rows of punctures **rufipes**
Pronotum not striate-punctate, with less than 12 punctures in an approximate longitudinal median row; and with a submedian impunctate area; elytron with suberect hairs throughout; elytron with many subregular rows of punctures **setosa**

58. *Stethotes rufipes* Bryant

Fig. 22c

Stethotes rufipes Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 426, fig. 9 (Mt. Lautoka, Loloti; type in Brit. Mus.).

Pitchy black, sometimes tinged with bluish; pronotum sometimes reddish; antenna testaceous; legs reddish. *Head* sparsely punctured, slightly striate on postocciput; *antenna* slender, third segment slightly longer than second, following subequal or slightly longer; *prothorax* rather strongly and evenly punctured, slightly striate near anterior border; *elytron* with punctures in regular rows, mostly much smaller than interspaces, one or two rows of outwardly directed pale hairs along suture in posterior two-thirds, and a small tuft of silvery hairs near apex. Length 3–3.5 mm.

VITI LEVU: Mt. Lautoka, Loloti; Nandari-vatu, 1050 m., Sept. 5, and Belt road west of Suva near Korolevu, July 26, 1938, Zimmerman; Vuti Ndawa, Aug. 27, 1925, W. H. Ford.

It is interesting to note that this species is extremely similar in dorsal appearance to a certain cryptorhynchine weevil occurring in Fiji.

59. *Stethotes setosa* Gressitt, n. sp.

Fig. 22d

Dark reddish brown, slightly pitchy above, and on antenna beyond third segment; paler reddish brown on abdomen and first three antennal segments; legs reddish pitchy. Body moderately clothed above with fine suberect hairs, mostly dark on pronotum, as well as transversely oblique silvery hairs along suture, particularly in posterior half; ventral surfaces irregularly clothed with fine suberect hairs.

Head slightly narrower than prothorax, about as wide as deep, sparsely but distinctly punctured; frontoclypeus largely impunctate. *Antenna* slender, two-thirds as long as body; scape fully twice as long as second segment; third barely longer than second, shorter than fourth; fourth slightly longer than fifth; sixth shorter than fifth; seventh and following much longer. *Prothorax* nearly as long as broad, barely four-fifths as broad as elytra, narrowed apically; disc strongly and somewhat closely punctured, with an impunctate area anterior

to center. *Scutellum* longer than broad, subrounded apically. *Elytron* more than twice as long as prothorax, strongly narrowed posteriorly, widest at end of basal third; disc with about 15 irregular rows of fine punctures, with one or two extra scutellar rows. *Metasternum* strongly punctured; abdomen finely punctured. Length 2.9 mm.; breadth 1.35 mm.

PARATYPES: Length 2.55 mm.; breadth 1.35 mm.

VITI LEVU: Holotype, male (BISHOP 2424), Belt road, 25 km. west of Suva, July 29, 1938, beating shrubs, Zimmerman; three paratypes, males, Lami Quarry, near Suva, May 1951, Krauss.

Differs from *S. rufipes* Bryant in being more reddish, more shiny, less elongate, with the pronotum more strongly punctured and not striate-punctate, the elytron somewhat bluish, more finely and closely punctured, and with the dorsum clothed with fine hairs throughout.

Tribe ADOXINI

Genus PARADEMOTINA Gressitt,
new genus

Head nearly as broad as prothorax; eye prominent; occiput convex, finely carinate medially; antenna slender; prothorax slightly broader than long; very feebly margined at side, closely punctured, just over two-thirds as broad as elytra; elytron suboblong, subregularly lineate-punctate; middle and hind tibiae emarginate preapically on outer side; tarsal claws bifid, but with the accessory process near base, suggesting the appendiculate condition. Dorsal surface clothed with minute scales on elytron and scale-like hairs on pronotum. Type: *Parademotina aureotincta* Gressitt, n. sp.

The prothorax appears from some angles to be margined at side, and from other angles appears unmargined. There is a feeble irregular ridge along the side, but not a true margin.

The type of this genus differs from species of *Demotina* Baly in being narrower and shall-

lower, in having the head shorter and broader, the prothorax subrectangular, and the aedeagus much more slender and attenuated apically.

60. *Parademotina aureotincta* Gressitt, n. sp.

Fig. 23a, b

Black to pitchy black, paler on elytral base, clothed above with irregular minute golden scales or scale-hairs, fairly dense on side of occiput, in certain lights forming a sinuous longitudinal stripe on side of pronotal disc, and on elytron forming about ten more or less distinct sublongitudinal small spots, roughly arranged in about three obliquely transverse bands, but also with scattered scales between the spots, and particularly on extreme base and suture near scutellum; front portion of head testaceous; antenna testaceous, becoming brown distally; ventral surfaces reddish brown, with abdomen testaceous; legs testaceous, but pitchy on distal portions of femora and bases and apices of tibiae; abdomen with some very long erect hairs.

Head as broad as prothorax, wider than deep, granulose and finely carinate medially on occiput; interantennal space about one-half as wide as interocular space. *Antenna* three-fourths as long as body; scape stouter than second segment, and one-half again as long; third to sixth slender; third and fourth subequal; fourth barely longer than fifth; sixth distinctly longer than fifth; seventh to tenth longer, subequal, last longest. *Prothorax* nine-tenths as long as broad, three-fourths as broad as elytra, moderately rounded at side; disc somewhat uneven, closely and somewhat deeply punctured, with roughly 20 punctures in an approximate median line. *Scutellum* subtrapeziform, obtuse apically. *Elytron* twice as long as prothorax, gradually narrowed and rounded apically; disc distinctly and uniformly punctured in regular rows, with two or three irregular extra rows at base near suture; most of punctures slightly

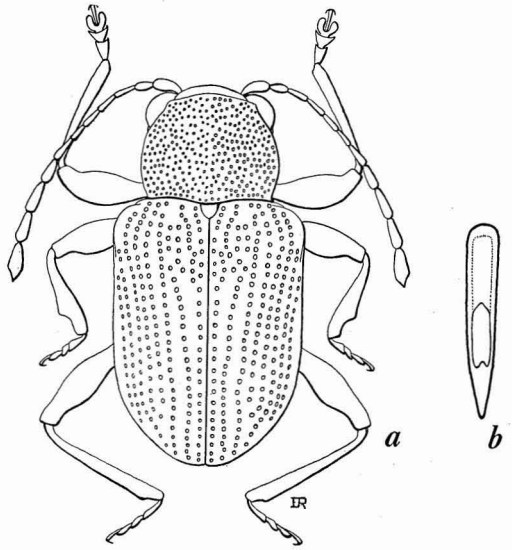


FIG. 23. a, *Parademotina aureotincta* Gressitt, n. sp., type; b, *Parademotina aureotincta*, aedeagus.

smaller than interspaces. *Ventral surfaces* moderately punctured on metasternum, feebly wrinkled and partly punctulate on abdominal sternites. Length 2.05 mm.; breadth 1.08 mm.

PARATYPES: Length 2.15–2.4 mm.; breadth 1.1–1.25 mm. Some with golden spots very vague.

VITI LEVU: Holotype (BISHOP 2429), near Suva, 100 m., Feb. 6, 1952, Gressitt. Four paratypes: Nandarivatu, 900–1100 m., Sept. 3–6, 1938, Zimmerman; Lautoka Mts., Oct. 23, 1921, Greenwood.

Differs from *Demotina obscurata* Bryant in being smaller, more dorso-ventrally compressed, darker, with small golden spots, with the head broader and shallower, the prothorax more rectangular, and the elytron less heavily punctured.

Genus *DEMOTINA* Baly

Demotina Baly, 1863, Jour. Ent. 2: 158 (type: *D. bowringii* Baly; China); 1867, Ent. Soc. London, Trans. (3) 4(2): 84; Chapuis, 1874, Gen. Col. 10: 281; Lefevre, 1885, Soc. Sci. Liege, Mem. Ser. 2, 11: 80; Jacoby, 1908, Fauna of India 2: 427.

Head narrower than prothorax; eye coarsely faceted; occiput generally finely carinate; antenna thickened distally; prothorax generally narrowed apically, often feebly margined at side; elytron suboblong; middle and hind tibiae emarginate preapically on outer side; tarsal claws bifid; dorsum clothed with fine scales or hairs.

KEY TO FIJIAN SPECIES OF *Demotina*

- 1. Elytron with some isolated fine erect hairs, or many short erect hairs, distinctly rugose and nodose if erect hairs not distinct. 2
 Elytron without erect hairs, not strongly rugose. 6
- 2(1). Pronotum often uneven or nodose; elytral erect hairs scattered, varying in length. 3
 Pronotum and elytron evenly convex; pronotum densely pubescent; elytron with numerous short sub-erect hairs of similar length. **pubescens**
- 3(2). Pronotum with rather distinct nodes or tubercles. 4
 Pronotum only moderately uneven, or body distinctly less than one-half as broad as long. 5
- 4(3). Elytron with premedian and preapical swellings and other irregularities; pronotum deeply punctured, with central tubercles about as widely spaced as one-half breadth of pronotum; largely blackish. . . . **rugosa**
 Elytron without premedian and preapical swellings; pronotum finely punctured, with central tubercles conical, less widely separated than one-half breadth of pronotum; rarely blackish. **nodosa**
- 5(3). Body less than one-half as broad as long; hind femur exceeding elytral apex. **fragilis**

- Body fully one-half as broad as long; hind femur not exceeding elytral apex. **veitchi**
- 6(1). Pronotum broadest near base, distinctly flattened above, not evenly convex, finely punctured. 7
 Pronotum rounded at side, as a rule strongly convex, or cylindrical-oblong, not distinctly flattened above and broadest near base, coarsely or finely punctured. 9
- 7(6). Pronotum dull, with a vague sub-transverse raised area anterior to center. 8
 Pronotum shiny, subglabrous, rather smooth, without a transverse premedian raised area; elytron testaceous with dark brown sutural stripe and three suboblique bands extending out from stripe, the posterior two reaching side. . . . **irregularis**
- 8(7). Elytron uniformly pale brown or with irregular transverse darker bands. **dissimilis**
 Elytron with a median dark brown stripe. **striata**
- 9(6). Elytron marked with some more or less distinct spots of white, silvery, or goldish hairs or scales. 10
 Elytron not marked with pale spots of pubescence or scales. 12
- 10(9). Elytron with several pale spots arranged somewhat in bands. 11
 Elytron subglabrous, with four or five conspicuous spots of silvery pubescence, arranged somewhat irregularly, but partly in a sub-longitudinal line. **albonotata**
- 11(10). Prothorax broader than long, not very strongly punctured; dorsum largely brown, often with silvery white longitudinal spots arranged in two suboblique bands behind middle of elytron. **obscurata**

Prothorax as long as broad, very strongly punctured; elytron with two or three obliquely transverse bands formed of small spots of white pubescence which are sometimes indistinct because of general pale pubescence. **bifasciata**

12(9). Dorsum generally black, appearing more or less glabrous, at least on pronotum. 13

Dorsum rarely black, as a rule distinctly pubescent. 14

13(12). Dorsum black with a golden tinge; pronotum nearly glabrous, shiny, rarely reddish. **metallica**

Dorsum black, non-metallic, thinly, but distinctly, pubescent. . . **pallipes**

14(12). Dorsum largely pale, or pale marked with blackish, often without very dense golden pubescence. 15

Dorsum pitchy black to dark reddish brown, with conspicuous golden to golden-buff pubescence; length 2–2.7 mm. **evansi**

15(14). Prothorax distinctly broader than long, distinctly convex at side. . . 16

Prothorax about as long as broad, feebly convex at side, much narrower than elytra. **cylindricollis**

16(15). Elytron with equivalent of about two extra rows of punctures near scutellum. 17

Elytron with only one extra row of punctures near scutellum; dorsum entirely pale. **fulva**

17(16). Dorsum marked with spots of pitchy; length generally over 2.5 mm.; elytron in large partly thinly golden-buff pubescent. . . . **vitiensis**

Dorsum not distinctly marked with pitchy; length generally under 2.0 mm.; elytron in part rather densely golden pubescent. . . . **glochidiona**

61. *Demotina pallipes* Bryant, n. sp.

Fig. 24a

Deep brown to black, with antenna and tarsi pale; feebly clothed with adpressed scales; prothorax closely punctured; elytron punctate-striate, the punctures large and round.

Head dark brown, finely punctured, clothed with slight pubescence. *Antenna* extending just beyond base of elytron, fulvous with apical segments slightly darker. *Prothorax* slightly broader than long, dark brown, closely punctured, clothed with slight pubescence; side rounded and slightly contracted in front; widest just before base. *Scutellum* dark brown, triangular. *Elytron* dark brown; punctate-striate, punctures large and round; clothed with adpressed scales. *Legs* dark brown; tarsi pale fulvous. Length 2–2.5 mm.

LAU: Holotype (BISHOP 2430), Mvana, Vanua Mbalavu I., Aug. 9, 1938, Zimmerman; beating shrubs. Mbavatu, Vanua Mbalavu, Aug. 16, 1938, Zimmerman; Sept. 23, 1924, Bryan. Naiau, Sept. 12, Tuvutha, Sept. 11, Avea, Sept. 22, Thikombia, Sept. 26, Yathata, Oct. 1, 1924, Bryan; Munia I., Aug. 3, 1938, Zimmerman and Kondō. One hundred fifteen specimens.

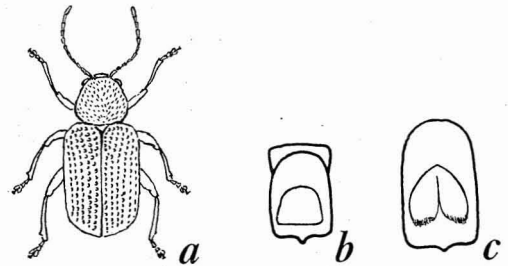


FIG. 24. a, *Demotina pallipes* Bryant, n. sp., type; b, *Demotina glochidiona* Gressitt, n. sp., aedeagus; c, *Demotina fulva*, aedeagus.

62. *Demotina glochidiona* Gressitt, n. sp.

Fig. 24b

Reddish brown, slightly darker on side of prothorax; legs testaceous, slightly darker on

apices of femora; antenna ochraceous; dorsum clothed with rather dense golden buff pubescence.

Head distinctly narrower than prothorax, deeper than wide, strongly arched and finely rugose-punctate on occiput, a narrow transverse groove between eyes. *Antenna* two-thirds as long as body; scape thicker and longer than second; third to sixth slender, third longer than fourth; fifth and sixth shorter, subequal; seventh and following longer and stouter. *Prothorax* four-fifths as long as broad, three-fourths as broad as elytra, evenly rounded at side, barely narrower at apex than at base; disc evenly convex, very closely and deeply punctured, with roughly 20 punctures in an approximate median line. *Scutellum* narrow, suboblong. *Elytron* twice as long as prothorax, suboblong, narrowed and rounded posteriorly; disc deeply punctured in somewhat sinuous rows, with two extra basal rows near suture, and some extra, and irregular rows at side, punctures on basal portion mostly larger than interspaces, particularly in longitudinal sense. *Ventral surfaces* largely impunctate, with a few fine punctures on abdominal sternites. Length 1.9 mm.; breadth 1.07 mm.

PARATYPES: Length 1.9–2.25 mm.; breadth 1–1.1 mm.

VANUA LEVU: Holotype (BISHOP 2431), Navakuru, 70 m., Oct. 7, 1955, Gressitt. Fourteen paratypes, Daku road, near Gelemumu, 12 km. east of Lambasa, on *Glochidion*, Oct. 6; Navakuru to Nakawanga, on *Glochidion*, Oct. 7; and Nakawanga, 75 m., on *Grewia*, Oct. 8, 1955, Gressitt.

HOSTS: *Glochidion cordatum* (Muell. Arg.) Seem.; *Grewia crenata* (Forst.) Schinz and Guill.

Differs from *D. vitiensis* Bryant in being smaller, almost entirely pale instead of with

dark markings, and with denser pubescence of longer hairs or scales.

63. *Demotina fulva* Bryant

Fig. 24c

Demotina fulva Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 361, fig. 6 (Labasa; type in Brit. Mus.).

Oblong, subcylindrical; fulvous, clothed with golden adpressed scales, the scales more hair-like and longer on pronotum than on elytron. *Head* carinate medially; *antenna* with scape twice as long as second segment; next four slender and elongate; last five stouter; *prothorax* strongly punctured, rounded at side, contracted in front, widest behind middle; *scutellum* subtriangular; *elytron* oblong, prominent at humerus, strongly punctate-striate; *ventral segments* with scattered punctures, first abdominal sternite more strongly punctured and twice as long as second. Length 2 mm.

VITI LEVU: Vunindawa, May 1941, Krauss; Navai Mill, near Nandarivatu, Sept. 1938, Zimmerman.

VANUA LEVU: Lambasa (type locality); Mbua, Apr. 1939, Lever; Daku road, near Gelemumu, east of Lambasa, on *Maesa* and *Glochidion*, Oct. 1955, Gressitt.

LAU: Six, questionably this species: Munia I., Aug. 1938, Zimmerman; Mvana, Vanua Mbalavu I., Aug. 1938, Zimmerman; south of Marona, Mango I., Aug. 1938, Zimmerman; Olorua I., Aug. 1924, Bryant; Dakuiloo, Oneata I., Aug. 1938, Zimmerman.

HOSTS: *Maesa persicaefolia* A. Gray (?); *Glochidion cordatum* (Muell. Arg.) Seem.

64. *Demotina metallica* Bryant, new name

Fig. 25a

Trichostola vitiensis Bryant, 1942, Ann. and Mag. Nat. Hist. Ser. 11, 9: 509 (Nandarivatu, Nausori; type in Brit. Mus.).

Deep bronze above, black beneath; elytron clothed with gray pubescence; labrum, legs, and first three antennal segments fulvous.

Head closely punctured with fine pubescence; *antenna* slender, third to sixth segments slender and subequal, last acuminate; *prothorax* slightly transverse, strongly punctured, with fine scattered pubescence, and rounded side; *scutellum* subquadrate, impunctate; *elytron* parallel-sided, rounded apically, strongly punctate-striate, with very fine pubescence; *meso-* and *metasternum* strongly punctured. Length 2 mm.

VITI LEVU: Nandarivatu; Nausori. Nandarivatu, Oct. 1937, Valentine and ridge west of Nandarivatu, 800 m., Mt. Victoria, 900 m., Sept. 1938, Zimmerman; Lami Quarry, May 1951, Mar. 1955, Krauss.

OVALAU: Thawathi, Draiba trail, July 1938, Zimmerman.

VANUA LEVU: Nakawanga to Wailevu, Oct. 1955, Gressitt.

One hundred twenty-five specimens.

65. *Demotina vitiensis* Bryant

Demotina vitiensis Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 359, fig. 5 (E. Viti Levu; type in Brit. Mus.).

Plum-brown, with darker markings forming patches and irregular transverse bands; *antenna* with four basal segments flavous, the rest fuscous; *prothorax* clothed with fine whitish adpressed scales; *elytron* with very short fine scales. *Head* with short adpressed whitish scales; *antenna* slender, scape longer and more swollen than second; third and fourth long and slender, sixth a little shorter than fifth, and last five more swollen and subequal; *prothorax* slightly transverse, rounded at side, strongly punctured, median portion of base and side darker; *scutellum* subquadrate; *elytron* oblong, rounded apically, with scales shorter than those on pronotum, strongly punctate-striate, with four incomplete dark bands. Length 2.5 mm.

VITI LEVU: Nanduruloulou; Nausori; Suva; Mt. Lautoka. Nandarivatu and ridge west of Nandarivatu, 1000 m., Sept., Mt. Korombamba, Aug. 1938, Zimmerman; Belt road

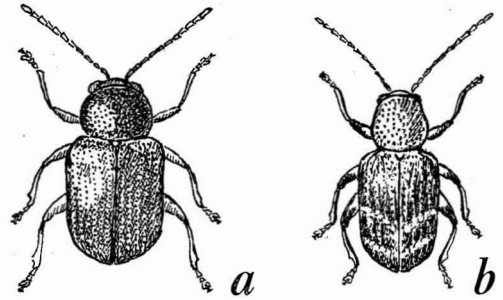


FIG. 25. a, *Demotina metallica* Bryant, n. n.; b, *Demotina bifasciata* Bryant, n. sp.

14 km. west of Suva, Tholo-i-suva, July 1938, Zimmerman; Vunindava, May 1941, Krauss; Lami, May 1951, Krauss; Nasinu, Apr. 1951, Krauss.

OVALAU: A doubtful specimen, Andubangda, July 1938, Zimmerman.

VANUA LEVU: Daku road, east of Lambasa, on *Glochidion* (100 specimens), *Macaranga*, *Decaspermum*, and *Psidium*, Oct. 1955, Gressitt; Nakawanga, Oct. 1955, Gressitt.

LAU: Olorua I., Fulanga I., Aug. 1924, Bryan; Munia I., Aug. 1938, Zimmerman. Some doubtful specimens, Mvana, Vanua Mbalavu I., Aug. 1938, Zimmerman; Aiwa I. and Oneata I., Aug. 1924, Bryan.

One hundred eighty-four specimens.

HOSTS: *Glochidion cordatum* (Muell. Arg.) Seem.; *Macaranga membranacea* Muell. Arg.; *Decaspermum fruticosum* Forst.; *Psidium guajava* L.

66. *Demotina bifasciata* Bryant, n. sp.

Fig. 25b

Oblong, subcylindrical, gray-black covered with short golden scale-like hairs; strongly punctured, *elytron* with two transverse bands formed of white patches of pubescence behind middle.

Head more or less fulvous, impunctate, clothed with short golden pubescence. *Antenna* fulvous, extending to middle of *elytron*; five terminal segments slightly thickened. *Pro-*

thorax about as broad as long, gray-black; anterior margin slightly fulvous, strongly punctured, covered with short golden scale-like hairs, with side feebly rounded. *Scutellum* gray-black, impunctate. *Elytron* gray-black, basal portion narrowly fulvous, subcylindrical, rounded at apex, strongly punctate-striate, clothed with fine golden scales, with two transverse bands behind middle, formed of whitish scale-like patches. *Underside* fulvous, with ventral segments of abdomen two to four about equal to each other and impunctate. *Legs* fulvous. Length 2 mm.

VITI LEVU: Holotype (BISHOP 2432), Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman; 14 specimens. Mt. Victoria, 950 m., Tholo North, Sept. 13, 1938, Zimmerman, 17 specimens. Lami Quarry, May 1951, Krauss, two specimens.

Allied to *D. obscurata* Bry., but smaller, not so dark, and with the transverse white patches on the elytron more numerous and differently placed.

67. *Demotina albonotata* Bryant

Demotina albonotata Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 364 (Loloti; type in Brit. Mus.).

Black, nitid, clothed with very fine scales; antenna ferruginous, flavous on first four segments; elytron with three tufts of silky white scales, on base, side, and apex, respectively. *Head* carinate medially, a white patch of scales near inner margin of eye; *antenna* slender in middle; *prothorax* coarsely rugose-punctate, with fine grayish scales; *elytron* elongate, tapering. Length 2.75 mm.

VITI LEVU: Loloti. Belt road 80 km. west of Suva, July 26, 1938, Zimmerman; Navai-Nasonga trail, Sept. 12, 1938, Zimmerman; Lami Quarry, near Suva, May 1951, Krauss.

OVALAU: Andubangda, July 18, 1938, Zimmerman.

MOALA: Naroi, Aug. 24, 1938, Zimmerman. Thirteen specimens.

68. *Demotina evansi* Bryant

Demotina evansi Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 362, fig. 7 (Quilai; type in Brit. Mus.).

Subcylindrical; gray-black, opaque, with a ferruginous pattern on elytron, and clothed with adpressed short whitish scales which form longitudinal lines between elytral striae; appendages largely ferruginous; ventral surfaces fuscous; legs reddish, in part fuscous or ferruginous. *Head* rugose; *antenna* with scape longer than second segment, both more swollen than the four following; *prothorax* rugosely punctured, broadest behind middle; *elytron* oblong, strongly punctate-striate. Length 2 mm.

VANUA LEVU: Twenty, Daku road, east of Lambasa, Oct. 6, 1955, on *Glochidion*, *Commersonia*, *Macaranga*, and *Maesa*, Oct. 6, 1955, Gressitt; one, Nakawanga, Oct. 8, 1955, Gressitt.

TAVEUNI: Quilai (type locality).

HOSTS: *Glochidion cordatum* (Muell. Arg.) Seem.; *Macaranga membranacea* Muell. Arg.; *Commersonia bartramia* (L.) Merr.; *Maesa persicaefolia* A. Gray (?).

69. *Demotina obscurata* Bryant

Demotina obscurata Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 363, fig. 8 (Waiyevo; type in Brit. Mus.).

Gray-black, covered with short fine white scales; tibiae, tarsi, and six basal segments of antenna ferruginous; elytron clothed with fine white scales and with five white patches of scales, three at middle and two at apex. *Head* with scales thicker and forming a white line near inner margin of eye; *antenna* slender, with scape a little longer than second segment and third one-half again as long as second; third to sixth long, slender and equal; *prothorax* finely punctured, about as broad as long, with scales longer than those of elytron; *elytron* oblong, tapering, strongly punctate-striate. Length 3 mm.

VITI LEVU: Eleven, questionably this species: Nandarivatu, Mt. Victoria, Navai-Na-songa trail, 1000 m., Sept. 1938, Zimmerman.

VANUA LEVU: Two, possibly this species: Daku road, east of Lambasa, on *Alphitonia*, Oct. 6, 1955, Gressitt.

TAVEUNI: Waiyevo (type locality).

HOST: *Alphitonia zizyphoides* (Spreng.) A. Gray.

70. *Demotina dissimilis* Bryant

Demotina dissimilis Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 358, figs. 3, 4 (Waiyevo; type in Brit. Mus.).

MALE: Plum-brown with adpressed whitish scales forming a pattern on elytron; antenna and legs fulvous. Head feebly punctured, carinate medially; antenna long and slender, fourth segment equal to second and third together; prothorax strongly and remotely punctured, widest behind middle; scutellum subquadrate; elytron oblong, strongly punctate-striate.

FEMALE: Stouter than male; antenna shorter and stouter; elytral pattern more defined, forming two wavy transverse bands on apical portion.

Length 3–3.25 mm.

VITI LEVU: Nandarivatu, Sept. 1938, Zimmerman, Jan. 1955, Krauss; Waito, Naivithula, and Korovou, Tailevu, Sept. 1937, Valentine; Navai Mill, Sept. 1938, Zimmerman; Mt. Korombamba, Aug. 1938, Zimmerman; Suva, Nov. 1899, Koebele; Lami, Mar. 1951, Mar. 1955, Krauss; Mbau, Apr. 1951, Krauss; Tholo-i-suva, Apr. 1951, Krauss; near Suva, Feb. 1952, Gressitt.

OVALAU: Thawathi, Wainiloka, Andubangda, July 1938, Zimmerman.

VANUA LEVU: East and south of Lambasa, Navakuru to Nakawanga, and Nakawanga, Oct. 1955, Gressitt.

TAVEUNI: Waiyevo (type locality). Ngathabula, Nov. 1937, Valentine; 1931, Lever, on *Clidemia*.

MOALA: Narei, Aug. 1938, Zimmerman; Matuku I., July 1924, Bryan.

LAU: Munia I., Aug. 1938, Zimmerman; Namuka I., Aug. 1924, Bryan; Mango I., Sept. 1924, Bryan; Matuku I., 1924, Bryan. One hundred twenty-five specimens.

HOSTS: *Clidemia hirta* (after Lever); *Macaranga* sp., *Syzygium*, prob. *seemannianum* Merr. and Perry; *Psidium guajava* L.

71. *Demotina irregularis* Bryant, n. sp.

Fig. 26

Oblong subcylindrical; head fuscous; prothorax, antenna, and legs fulvous; elytra with an irregular gray-black pattern down the median portion, sides and suture flavous.

Head broadly fuscous near eye; occiput slightly fulvous; clothed with very short fine hairs. Antenna extending just beyond middle of elytron, first two segments slightly dilated; remainder elongate and slender; five apical segments slightly thickened. Prothorax fulvous, broadest just behind middle; side contracted in front; clothed with very short fine golden hairs. Scutellum fulvous, triangular, impunctate. Elytra slightly broader than base of the prothorax; side margin with an irregular

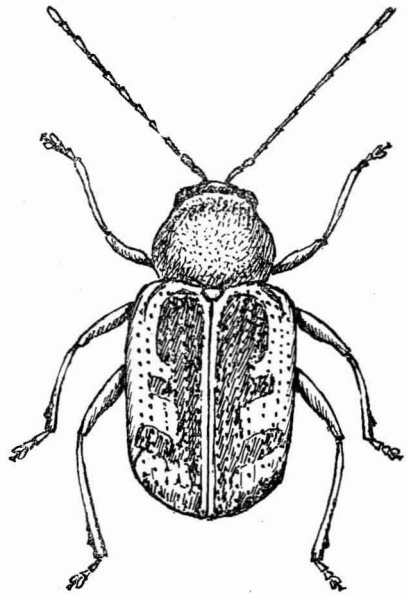


FIG. 26. *Demotina irregularis* Bryant, n. sp., type.

flavous pattern; suture narrowly flavous, the median portion forming a gray-black pattern running into the flavous margin; punctate-striate, clothed with very short pubescence. *Legs* fulvous. *Underside* with the meso- and metasternum fuscous; ventral segments of the abdomen fulvous. Length 2.5 mm.

VITI LEVU: Holotype (BISHOP 2433), Nandarivatu, 1100 m., Sept. 6, 1938, Zimmerman.

A very distinct species on account of the irregular pattern on the elytra.

72. *Demotina striata* Bryant, n. sp.

Fig. 27

Brown; head, prothorax, underside, and legs darker than elytron, clothed with adpressed scales; elytron paler with a longitudinal dark stripe between suture and side margin.

Head dark brown clothed with short silvery pubescence. *Antenna* extending just beyond base of elytron; fulvous, with five apical segments slightly darker. *Prothorax* dark brown clothed with fine adpressed scales, transverse,

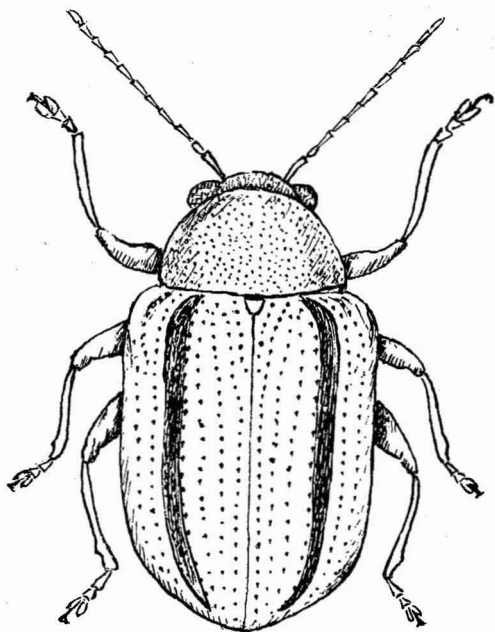


FIG. 27. *Demotina striata* Bryant, n. sp., type.

widest just before base, side rounded and contracted in front. *Scutellum* dark brown, subquadrate, impunctate. *Elytron* pale brown clothed with ashy adpressed scales, with a longitudinal dark stripe between suture and side margin. Length 4 mm.

VITI LEVU: Holotype (BISHOP 2434), Nandarivatu, Sept. 2, 1938, Zimmerman. Six paratypes, five, same data as type, one, Jan. 1955, Krauss. Also, four not designated paratypes: Belt road, 14 km. west of Suva, July 1938, Zimmerman; Lami Quarry, July 1938, Zimmerman, and May 1951, Krauss.

OVALAU: Andubangda, July 18, 1938, Zimmerman, one specimen; near Levuka, July 10, 1938, Zimmerman, one specimen.

A very distinct species on account of the well marked longitudinal dark stripe on the elytron.

73. *Demotina pubescens* Gressitt, n. sp.

Fig. 28

FEMALE: Reddish brown, in part darker, largely clothed above with pale golden-buff to silvery buff pubescence, consisting largely of short suberect hairs, as well as minute hair-scales: head reddish, pitchy on each side of occiput; antenna reddish, duller in distal half; prothorax reddish brown, marked with blackish at sides, and a little on center; elytron reddish brown with a weak dark band anterior to middle and a slightly broader one just behind middle, and the scales on these bands dark reddish; ventral surfaces paler reddish, glabrous except for pale pubescence at side of thorax; legs reddish ochraceous, paler on tarsi.

Head four-fifths as broad as prothorax, deeper than wide, strongly punctured and glabrous on frontoclypeus; finely punctured, pubescent, and carinate on occiput. *Antenna* two-thirds as long as body, fairly slender; scape one-half again as long as second segment, about as long as third; fourth to sixth subequal, slender; seventh to tenth equal in length to preceding, slightly stouter; last slightly longer. *Prothorax* seven-eighths as

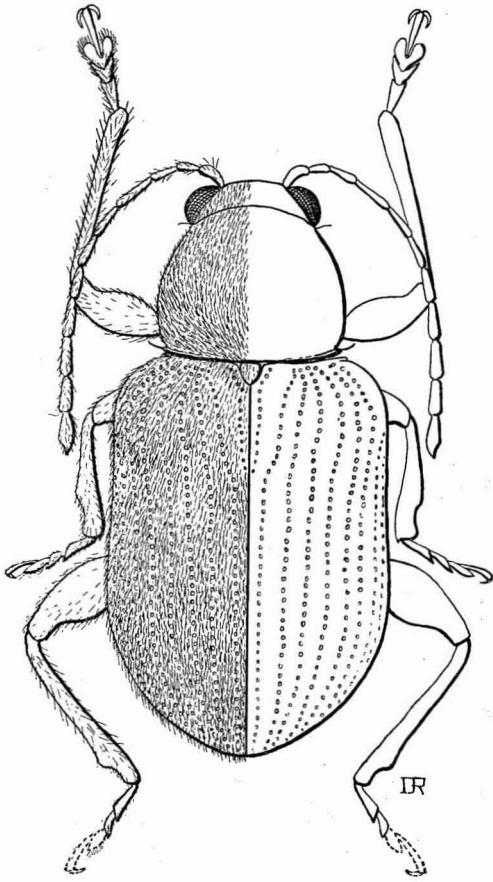


FIG. 28. *Demotina pubescens* Gressitt, n. sp.

long as broad, two-thirds as broad as elytra, rounded at side, widest near base; disc somewhat evenly convex, very finely and closely punctured. *Scutellum* subtrapeziform, obtuse apically. *Elytron* slightly more than twice as long as prothorax, slightly sinuate at side, narrowed apically; disc with about eight regular rows of fairly small punctures on upper surface, and three to five or six on side, which partly branch anteriorly, and a single distinct scutellar row; interspaces fairly broad, and mostly somewhat convex. *Ventral surfaces* largely impunctate, except for parts of side. *Legs* fairly slender; hind femur not reaching apex of abdomen. Length 4.75 mm.; breadth 2.5 mm.

PARATYPES: Length 4.5 mm.; breadth 2.25 mm.

MOALA: Holotype, female (BISHOP 2435), Naroï, 250 m., Moala I., beating shrubs, Aug. 24, 1938, Zimmerman. Paratopotype, female, same data.

Differs from the other Fijian species in having the dorsum clothed with short suberect hairs in addition to minute scales. Differs further from *D. veitchi* Bryant in having the pronotum more even, much more closely and finely punctured, and in having the elytral interstices mostly convex.

74. *Demotina veitchi* Bryant

Demotina veitchi Bryant, 1931, Ann. and Mag. Nat. Hist. Ser. 10, 8: 356, figs. 1, 2 (Labasa, Penang Mts.; type in Brit. Mus.).

MALE: Plum-brown; legs and antenna flavous, clothed with short white scales. *Head* with clypeus rather strongly punctured; *antenna* slender with scape twice as long as second segment, fourth longer than third or fifth, the last seven subequal; *prothorax* finely punctured, with scales longer and more hair-like at side, forming two longitudinal wavy lines enclosing median portion, which is paler; *scutellum* oblong-subpentagonal; *elytron* with darker lines and patches near shoulders, oblong, rounded at apex, strongly punctate-striate, apical half with long white erect hairs, forming longitudinal rows between striae.

FEMALE: Stouter; antenna shorter; elytral scales forming variable pattern.

Length 3–3.5 mm.

VITI LEVU: Penang Mts.; Nandarivatu, 800 m., Sept. 1938, Zimmerman; Tholo-i-suva, and Belt road, 80 km. west of Suva, July 1938, Zimmerman; Bulu, near Sovi, Apr. 1941, Krauss; Lami, Mar. 1951, Krauss; Naitivithula, Tailevu, Aug. 1937, Valentine.

OVALAU: Andubangda, Draiba trail, and Wainiloka, July 1938, Zimmerman.

VANUA LEVU: Lambasa.

Fifteen specimens.

75. *Demotina fragilis* Gressitt, n. sp.

Fig. 29

Pale reddish brown, in part paler or darker: head reddish brown; antenna pale ochraceous; prothorax reddish brown, a pitchy stripe along each side of disc, elytron pale reddish brown, with some small irregular darker brown marks; ventral surfaces pale reddish brown, nearly testaceous on abdomen; legs testaceous, pitchy before femoral apices, and near tibial bases and apices. Dorsum somewhat unevenly clothed with minute buffy scale-hairs and with scattered erect hairs, particularly on posterior half of elytron.

Head five-sixths as broad as prothorax, slightly broader than deep, distinctly and not very closely punctured on frontoclypeus; occiput finely and sparsely punctured, feebly carinate medially behind an anterior depression. *Antenna* three-fourths as long as body, fairly slender; scape stout, nearly twice as long as second segment; third to sixth slender; fourth distinctly longer than third, and a little longer than sixth; last longest. *Prothorax* four-fifths as long as broad, seven-tenths as broad as elytra, somewhat evenly rounded at side, nearly as broad at apex as at base; disc slightly uneven, with a low swelling at each side just anterior to center, finely punctured, with roughly 20 punctures in an approximate median row. *Scutellum* "U"-shaped, slightly broadened at base. *Elytron* more than twice as long as prothorax, suboblong, narrowed apically; disc with eight regular puncture-

FIG. 29. *Demotina fragilis* Gressitt, n. sp., aedeagus.

rows above, with an extra scutellar row, and three to five partly irregular rows at side; punctures mostly almost as wide as interspaces longitudinally, but much narrower than interstices transversely. *Ventral surfaces* feebly and irregularly punctured. *Legs* long; hind femur exceeding elytral apex. Length 3.6 mm.; breadth 1.7 mm.

VITI LEVU: Holotype, male (BISHOP 2436), Nandarivatu, 900 m., beating shrubs, Sept. 1, 1938, Zimmerman. Allotype, female (BISHOP), Lami Quarry, 50 m., near Suva, July 24, 1938, Zimmerman. Sixteen paratypes: Nandarivatu, Sept. 7-8, Tholo-i-suva, July 27, Belt road, 25 km. west of Suva, July 22, 1938, Zimmerman; Bulu, near Sovi, Apr. 21, 1941, Krauss; Lami Quarry, May 1951, Krauss; Naivithula, Tailevu, Aug. 18, 1937, Valentine.

OVALAU: Draiba trail, July 8, Wainiloka, 60 m., July 11, 1938, Zimmerman.

VANUA LEVU: Daku road, east of Lambasa, three on *Alphitonia* and one on *Commersonia*, Oct. 6, 1955, Gressitt; Nakawanga, Oct. 9, 1955, Gressitt.

HOSTS: *Alphitonia zizyphoides* (Spreng.) A. Gray; *Commersonia bartramia* (L.) Merr.

Differs from *D. veitchi* Bryant in being more slender, with the body less than one-half as broad as long, in having the legs longer, with the hind femur exceeding the elytral apex, the pronotum more even, and with the elytron less distinctly banded postmedially.

76. *Demotina nodosa* Bryant, n. sp.

Fig. 30a, b

Oblong, cylindrical, plum-brown, a paler transverse band behind middle of elytron, and apex paler; prothorax with two blunt tubercles on vertex, clothed with golden pubescence; elytron with shorter adpressed pubescence.

Head plum-brown, clothed with fine scattered golden pubescence, a longitudinal carina extending from between eyes to base. *Antenna* long and slender, extending almost to middle of elytron; first segment more dilated and twice as long as second; third slender and

twice as long as second; third to sixth each long and slender; remainder to apical segment slightly thickened and more pubescent, basal portion of each segment slightly fuscous. *Prothorax* plum-brown clothed with golden pubescence, widest just behind middle, and contracted in front, two blunt tubercles on vertex. *Scutellum* plum-brown, impunctate, rounded at apex. *Elytron* plum-brown, a transverse paler band behind middle, and apex paler; sides parallel and rounded at apex, punctate-striate, clothed with short adpressed golden pubescence. *Legs* with central portion of femora darker; tibiae with apical and basal portions darker. *Underside* fuscous, clothed with scattered pubescence; first ventral segment of abdomen longest. Length 5–5.5 mm.

VITI LEVU: Holotype (BISHOP 2437), Nandarivatu, Sept. 2, 1938, Kondo, one specimen. Nandarivatu, Navai Mill, Oct. 13, 1937, Valentine, four specimens. Nandarivatu, 1100 m., Sept. 3, 1938, Zimmerman, two specimens. Navai-Nasonga trail, Sept. 12, 1938, Zimmerman, three specimens; Mt. Victoria, 950 m., Sept. 16, 1938, Zimmerman.

A very distinct species, on account of the tuberculate prothorax.

77. *Demotina rugosata* Gressitt, n. sp.

Fig. 30c

Reddish brown to pitchy black, paler in part: head reddish brown, blackish on posterior portion of occiput; antenna ochraceous basally, pitchy on third to seventh segments, brown on remainder; prothorax reddish brown, largely pitchy to blackish at side; scutellum black; elytron dull reddish brown, with some of raised areas blackish and some of the lesser ones reddish or paler; ventral surfaces reddish brown, partly pitchy on first and last abdominal sternites; legs testaceous with femora black preapically, reddish apically, and tibiae partly pitchy subbasally and preapically. Dorsum somewhat irregularly and feebly clothed with minute goldish scales and

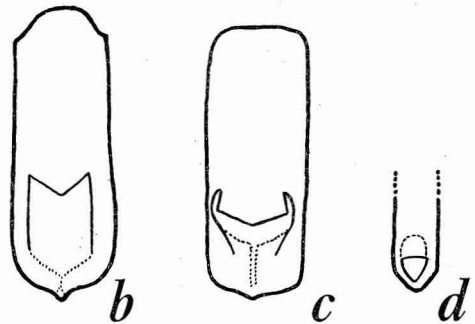
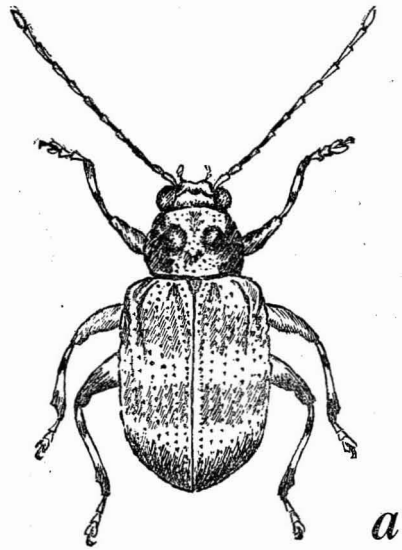


FIG. 30. a, *Demotina nodosa* Bryant, n. sp., type; b, *Demotina nodosa*, aedeagus; c, *Demotina rugosata* Gressitt, n. sp., aedeagus; d, *Demotina cylindricollis* Gressitt, n. sp., aedeagus.

a few erect hairs; ventral surfaces with a very few fine subrecumbent hairs.

Head slightly more than three-fourths as broad as prothorax, deeper than wide, distinctly punctured on the shiny frontoclypeus, more closely and finely punctured, and medially carinate, on the duller occiput. *Antenna* two-thirds as long as body, rather slender; scape nearly twice as long as second segment, barely longer than third; fourth slightly longer than third; fifth barely shorter than fourth,

longer than sixth; seventh to tenth stouter, about as long as sixth; last longer, suddenly narrowed before apex. *Prothorax* nearly as long as broad, two-thirds as broad as elytra, somewhat irregularly rounded at side; disc distinctly irregular, with an oblique raised area on each side of midline anterior to center, preceded anteriorly by an obtuse depression and slightly raised area on midline not far from apex; disc deeply impressed with longitudinal elliptical punctures, mostly more widely separated transversely than their widths; side very coarsely foveate to reticulate-punctate. *Scutellum* narrowed, obtuse apically, convex. *Elytron* twice as long as prothorax, subrectangular, strongly rugose-punctate, for most part rather irregularly so, with two or three extra scutellar rows; disc with three distinctly raised areas in a rough line somewhat parallel to suture, near base, middle, and top of apical declivity, respectively, and also many other lesser nodes, ridges, or generally irregularly raised interstices. *Ventral surfaces* nearly impunctate. Length 4 mm.; breadth 2.2 mm.

PARATYPES: Length 3.5–4.2 mm.; breadth 1.8–2.2 mm.

VANUA LEVU: Holotype, female (BISHOP 2438), Nakawanga, alt. 80 m., on *Trichospermum*, Oct. 9, 1955, Gressitt. Six paratopotypes (one BM), same data, except two on *Macaranga* (probably by chance), Gressitt.

OVALAU: One, Andubangda, 500 m., July 15, 1938, Zimmerman.

VITI LEVU: Two, Belt road, 15–25 km. west of Suva, July 22, 29, 1938, Zimmerman; two, Lami, Mar. 1951, Krauss.

HOST: *Trichospermum calyculatum* (Seem.) Burret.

Differs from *D. nodosa* Bryant in being darker, in having the elytron much more irregular, with distinct tubercles and strong rugosity, and with the pronotum armed with a pair of widely spaced low oblique tubercles, instead of a pair of fairly close, conical tubercles.

78. *Demotina cylindricollis* Gressitt, n. sp.

Fig. 30d

Testaceous; prothorax slightly reddish ochraceous; antenna pale ochraceous, becoming slightly pitchy by last segment; elytral epipleuron and mesepimeron slightly pitchy reddish. Body clothed above with minute sparse golden scale-hairs, and on antenna with longer sparse oblique hairs; ventral surfaces nearly glabrous.

Head not quite as broad as prothorax, about as broad as deep; frontoclypeus very short, partly punctured; occiput finely and closely punctured; antennae almost as widely separated as eyes. *Antenna* nearly three-fourths as long as body; scape stout, a little longer and a little thicker than second segment; third to fifth slender, subequal; sixth barely shorter than fifth; seventh to tenth subequal, moderately stout; last longer, with apex more slender and set off. *Prothorax* nearly as long as broad, just over three-fifths as broad as elytra, feebly convex at side, fairly even above; disc finely punctured, with roughly 25 punctures in an approximate median row. *Scutellum* slightly longer than broad, widened at base, slightly convex apically, granulose. *Elytron* more than twice as long as prothorax, sub-oblong, narrowed apically; disc in part regularly punctured, with eight distinct puncture-rows above, behind middle, but about three extra, partly confused, scutellar rows, and four to six rows on lateral declivity; punctures mostly about as wide as interspaces longitudinally, but more widely separated between rows, at least in posterior two-thirds. *Ventral surfaces* nearly impunctate, except for bordering grooves of thoracic sternites and last abdominal sternite. Hind femur moderately stout, not reaching apex of abdomen. Length 2.4 mm.; breadth 1.25 mm.

PARATYPES: Some vague mottling on part of elytron. Length 2.3–2.5 mm.; breadth 1.1–1.3 mm.

VITI LEVU: Holotype (BISHOP 2439), west slope, Mt. Victoria, 950 m., Tholo North,

Sept. 16, 1938, Zimmerman. Two paratypes, ridge west of Nandarivatu, 850 m., Sept. 9, 1938, Zimmerman; one, Mavai, Sept. 1950, Krauss.

Two additional specimens, Nandarivatu, 1000 m., Sept. 6, 1938, Zimmerman, and Daku road, east of Lambasa, Vanua Levu, Oct. 6, 1955, Gressitt, appear to represent two different, related species. The former has the prothorax fully as long as broad, but in the latter it is broader and more rounded at side.

Differs from *D. fulva* Bryant in being smaller, more finely punctured, and with the prothorax longer and less rounded at side. This species probably represents a different genus.

Genus *DAMELIA* Clark

Damelia Clark, 1864, Jour. Ent. 2: 255 (type: *D. marshalli* Clark; Fiji); Chapuis, 1874, Gen. Col. 10: 271; Lefevre, 1885, Soc. Sci. Liege, Mem. Ser. 2, 11: 72.

Head small; last maxillary palpal segment acuminate; eye large. Antenna filiform, three-fourths as long as body, with scape swollen, second and third subequal, following longer and last shorter and stouter. Prothorax cylindrical, nearly as long as broad, dilated in middle, lateral border wanting, and surface irregular. Elytron broad, subquadrate, rounded apically, irregular, punctured and rugose-tuberculate.

KEY TO FIJIAN SPECIES OF *Damelia*

1. Color deep metallic or bronzy black. . . . 2
Color purplish black to greenish black; pronotal punctures coarse. . . . *marshalli*
2. Elytron with close pubescence; legs with long pubescence; bronzy black. . . . *rugosa*
Elytron with scattered pubescence; legs with short pubescence; deep metallic brown. . . . *verrucosa*

79. *Damelia marshalli* Clark

Damelia marshalli Clark, 1864, Jour. Ent. 2: 256 (Fiji; type in Brit. Mus.); Fairmaire,

1882, Soc. Ent. de France, Ann. Ser. 6, 1: 482.

Greenish black to purplish black, shiny. Head closely and in part confluent punctured; antenna distinctly thickened distally; prothorax slightly narrower than elytra, rounded at side, densely punctured and bearing three tubercles; elytron strongly and densely punctured and with somewhat oblong tubercles. Length 5 mm.; breadth 2.5 mm.

VITI LEVU: Presumably Viti Levu, though locality not specified. Lacking in present collection.

80. *Damelia verrucosa* Bryant, n. sp.

Fig. 31

Deep metallic brown, antenna and tibiae fulvous; rugosely punctured, prothorax with two large median blunt tubercles, and four small ones near side margin; elytron irregularly verrucose.

Head strongly punctured, a smooth longitudinal carina from between eyes to base;

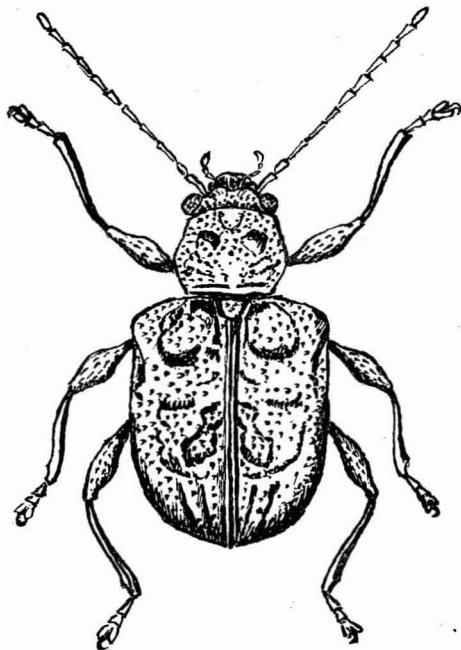


FIG. 31. *Damelia verrucosa* Bryant, n. sp., type.

not as broad as prothorax; clypeus and palpi flavous. *Antenna* fulvous, extending to middle of elytron; five basal segments fulvous and more glabrous than six apical segments, which are more fuscous; first segment more dilated and slightly longer than second. *Prothorax* deep metallic brown, side slightly rounded, rugosely punctured, two large median blunt tubercles, and two small ones near anterior half of side margin. *Scutellum* deep metallic brown, impunctate. *Elytra* deep metallic brown, much broader than base of prothorax, rounded at apex, strongly and irregularly punctured, and verrucose. *Legs* with femora dilated in middle, slender at base, strongly punctured, and with scattered pubescence; tibiae and tarsi more fulvous. *Underside* with ventral segments of abdomen tinged with fulvous, first segment equal to second and third together. Length 5–6 mm.

VITI LEVU: Holotype (BISHOP 2440), ridge west of Nandarivatu, 900 m., Apr. 13, 1937, Valentine. Six paratypes, Nandarivatu, 1000 m., Sept. 3, 1938, beating shrubbery, Zimmerman; Navai Mill, Nandarivatu, Oct. 13, 1937, Valentine.

OVALAU: Thawathi, 180–270 m., June 12, 1938, beating shrubbery, Zimmerman.

Allied to *D. marshalli* Clark, but differing in sculpture, and without any purple reflections, duller brown.

81. *Damelia rugosa* Bryant, n. sp.

Fig. 32

Bronzy black; antenna, labrum, palpi, and basal portions of femora and tibiae fulvous. Prothorax and elytron very rugose and irregularly punctured.

Head bronzy black, strongly and closely punctured, as broad at eyes as front of prothorax; labrum and palpi fulvous. *Antenna* fulvous, extending to middle of elytron; first segment more dilated, slightly longer than second; second shorter than third; fourth slightly longer than third, and equal to fifth; third to fifth elongate and more slender than

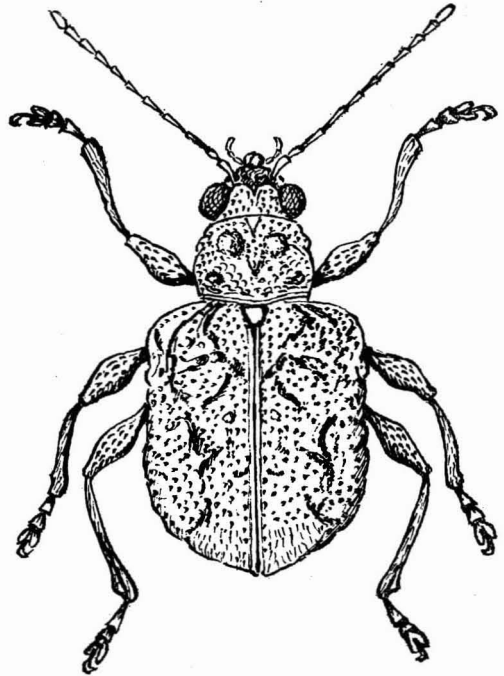


FIG. 32. *Damelia rugosa* Bryant, n. sp., type.

six apical segments, which are slightly thickened. *Prothorax* much narrower than base of elytra, bronzy black, very rugose, strongly and closely punctured, widest behind middle, two blunt tubercles on disc and a small one near posterior angle. *Scutellum* bronzy black, its apex rounded. *Elytron* bronzy black, rugose and verrucose, irregularly punctured, rounded at apex, apical portion clothed with scattered pale pubescence. *Legs* bronzy black; femora with median portions swollen, strongly punctured and pubescent, basal portions narrow and fulvous; tibiae and tarsi more or less fulvous and clothed with pale pubescence. *Underside* bronzy black; ventral segments of abdomen pubescent. Length 5–6 mm.

VITI LEVU: Holotype (BISHOP 2441), Tholoi-suva, July 25–27, 1938, Zimmerman, beating shrubs; four specimens (one paratype in BM).

Allied to *D. marshalli* Clark, but differs in its more bronze color, in the sculpture of the prothorax and the elytra, and in the closer puncturation.

Tribe COLASPOIDINI

(IPHIMEINI and ENDOCEPHALINI)

Genus EUCOLASPIS Sharp

Eucolaspis Sharp, 1886, Roy. Dublin Soc., Trans. Ser. 2, 3: 445 (type: here designated as *Colaspis pallidipennis* White; New Zealand); Broun, 1893, Manual N. Zealand Col. 5: 1303.

Head small, rounded, engaged in prothorax; eyes widely separated. Antenna as a rule dilated at apex. Prothorax as broad at its base as elytra, or a little less broad, its side margin well marked and entire. Elytron ovate or briefly ovate, seldom oblong. Prosternum truncate, square at base. Legs simple, tibia of the posterior pair not emarginate; claws appendiculate.

A New Zealand species is a pest of apple trees.

KEY TO FIJIAN SPECIES OF *Eucolaspis*

1. Testaceous, rarely with borders of elytron blackish; elytral interstices impunctate. *castanea*
 Reddish to pitchy, with suture and outer margin black; elytral interstices micro-punctulate. *saltator*

82. *Eucolaspis castanea* Bryant, n. sp.

Fig. 33a, b

Entirely castaneous, or with varying degrees of black on prothorax and elytron, head and prothorax impunctate, elytron finely punctate-striate.

Head castaneous, impunctate, with eyes as wide as front of prothorax. *Antenna* flavous, or in some with seven apical segments tinged with fuscous; two basal segments more dilated, first about twice as long as second; third to sixth long and slender; seventh to apex slightly thickened; extending to middle of elytron. *Prothorax* castaneous, or with varying degrees of black to entirely black, nitid, impunctate, narrowly margined all round,

widest at base, gradually contracted to apex. *Scutellum* castaneous, impunctate. *Elytron* entirely castaneous or with side margins and suture fuscous, punctate-striate, widest at base, gradually tapering and rounded at apex. *Legs* castaneous, tibiae all straight and not emarginate apically. *Ventral surfaces* castaneous; first ventral segment of abdomen longest; second to fourth equal to each other. Length 2.6–3.3 mm.; breadth 1.9–2.1 mm.

VITI LEVU: Holotype (BISHOP 2442), Nandativatu, Oct. 7, 1937, on *Scaevola*, Valentine; 14 paratopotypes, Valentine; six paratopotypes, 1100 m., Sept. 10, 1938, Zimmerman. One paratype, Mt. Victoria, Sept. 16, 1938, Zimmerman; one, Mt. Korombamba, Aug. 1, 1938, Zimmerman; ten, Lami Quarry, near Suva, Feb. and May 1951, Krauss.

HOST: *Scaevola floribunda* A. Gray.

83. *Eucolaspis saltator* Gressitt, n. sp.

Fig. 33c

MALE: Ochraceous, heavily marked with pitchy on inner portion, and outer margin, of elytron; antenna and legs testaceous.

Head rather even, with some strong punctures between eyes. *Antenna* slender, as long as body; scape swollen, twice as long as second segment; third nearly as long as scape, subequal to fourth; fifth and following slightly longer. *Prothorax* nearly twice as broad as long, nearly as broad as elytra, evenly convex, moderately rounded at side, with scattered large punctures and minute punctures between them. *Scutellum* rounded-triangular. *Elytron* widest just behind humerus, subevenly rounded, with nine rows of fine punctures, besides scutellar row. *Ventral surfaces* smooth, nearly impunctate, with a few suberect hairs, mostly on first abdominal sternite. Length 2.5 mm.; breadth 1.65 mm.

PARATYPES: Length 2.3–3.2 mm.; breadth 1.45–2.2 mm.

VANUA LEVU: Holotype, male (BISHOP 2443), between Navakuru and Nakawanga, 100 m., central Vanua Levu, on *Tarenna*, Oct.

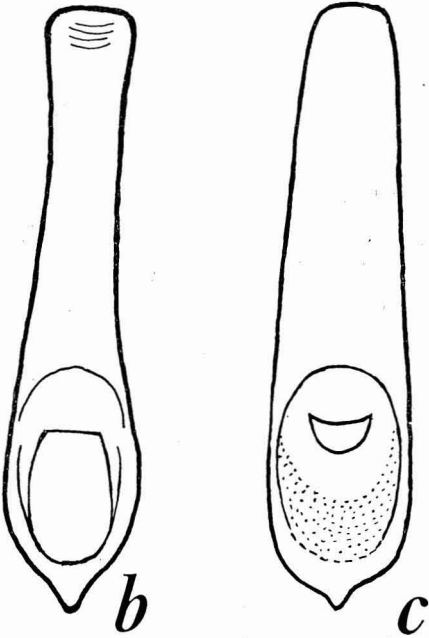
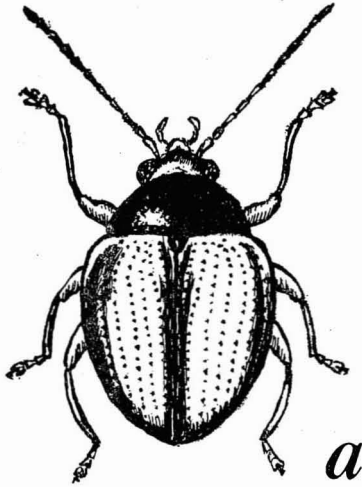


FIG. 33. a, *Eucolaspis castanea* Bryant, n. sp., type; b, *Eucolaspis castanea*, aedeagus; c, *Eucolaspis saltator* Gressitt, n. sp., aedeagus.

7, 1955, Gressitt; allotype, female (BISHOP), same data. Ten paratypes (BISHOP, BM, US, CSIRO): eight paratopotypes, mostly on *Tarenna*, same data; one, Navakuru, light trap, Oct. 6; one, Daku road, 12 km. east

of Lambasa, on *Commersonia*, Oct. 6, 1955, Gressitt.

HOSTS: *Tarenna sambucina* (Forst.) Durand; *Commersonia bartramia* (L.) Merr.

Differs from *E. castanea* Bryant in being darker, in part blackish, with the head and pronotum more heavily punctured, the elytron micropunctulate between puncture-rows. This species was observed to jump.

Genus COLASPOIDES Laporte

Colaspoides Laporte, 1833, in Silberm. Rev. d'Ent. 1: 20 (type: *Cryptocephalus limbatus* Fabr.; S. America); Baly, 1864, Ent. Monthly Mag. 1: 134; 1867, Ent. Soc. London, Trans. (3) 4(2): 134; Chapuis, 1874, Gen. Col. 10: 346; Jacoby, 1908, Fauna of India, Chrys. 1: 514.

Head broad; antenna long and slender; prothorax nearly as broad as elytra basally, narrowed anteriorly, margined at side; elytron subregularly punctured; femora sometimes toothed beneath; claws appendiculate.

KEY TO FIJIAN SPECIES OF *Colaspoides*

1. Pronotum distinctly convex, distinctly narrowed anteriorly; breadth of body generally less than 2.5 mm. 2
 Pronotum feebly convex, sparsely punctured; sides of prothorax nearly parallel in basal half; breadth of body generally at least 3 mm.; pitchy brown with a metallic tinge **vitiensis**
2. Pale reddish brown, sometimes darker on pronotum, which is sparsely punctured; aedeagus of male deeply emarginate at middle of apex **brunnea**
 Pitchy brown to dark reddish brown; pronotum more densely punctured, sometimes with interspaces hardly more than twice as wide as punctures; aedeagus of male with a strong blunt tooth at middle of apex **confusa**

84. *Colaspoides brunnea* Bryant, n. sp.

Fig. 34a, b

Entirely pale brown; head coarsely punctured; prothorax irregularly and not closely punctured, elytron irregularly punctate-striate.

Head pale brown, coarsely punctured, labrum and clypeus smooth. *Antenna* pale brown, extending slightly beyond middle of elytron; first segment more dilated and twice as long as second; third about three times as long as second; third to last all about equal, slightly pubescent. *Prothorax* pale shining brown, very transverse, side feebly margined, rounded in front, irregularly and not closely punctured; basal portion smooth, with a row of punctures along basal margin. *Scutellum* brown, impunctate. *Elytron* pale brown, widest at base, gradually tapering to apex, irregularly punctate-striate, the punctures slightly stronger than on prothorax. *Legs* pale brown; tibiae clothed with pale pubescence; femora unarmed. *Underside* pale brown; ventral segments of abdomen feebly punctured. Length 5 mm.

OVALAU: Holotype (BISHOP 2444), Wainiloka, Sept. 28, 1937, Valentine, nine specimens.

VITI LEVU: Naivithula, Sept. 28, 1937, Valentine, one specimen; Lami Quarry, near Suva, May 1951, Krauss; Suva, Feb. 1952, Gressitt.

Allied to *C. vitiensis* Bry., and *C. tarsalis* Lea., but differs in its pale color without metallic gloss.

85. *Colaspoides confusa* Gressitt, n. sp.

Fig. 34c

Reddish brown; antenna and legs testaceous. Body glabrous above; ventral surfaces and legs with sparse fine oblique hairs.

Head nearly four-fifths as broad as prothorax, about as broad as deep, sparsely punctured, most densely so near antennal insertions; frontoclypeus concave in center. *Antenna* slender, two-thirds as long as body; scape three times as long as second segment;

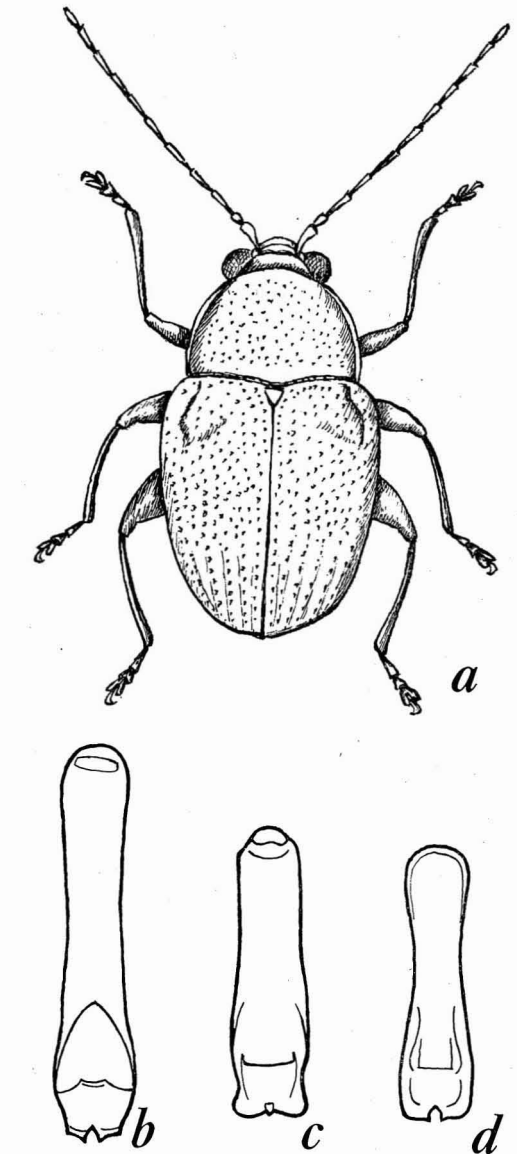


FIG. 34. a, *Colaspoides brunnea* Bryant, n. sp., type; b, *Colaspoides brunnea*, aedeagus; c, *Colaspoides confusa* Gressitt, n. sp., aedeagus; d, *Colaspoides vitiensis*, aedeagus.

third subequal in length to scape and fourth; fifth distinctly longer, subequal to each of following. *Prothorax* about twice as broad as long, nearly as broad as elytra, subrectangular, moderately narrowed anteriorly, feebly obtuse in basal outline; disc moderately convex, with

fairly numerous distinct punctures, some separated by as little as twice the diameter of a puncture. *Scutellum* rounded-triangular, finely frosted. *Elytron* three times as long as prothorax, somewhat deeply punctured in more than ten very irregular rows. *Ventral surfaces* finely punctured. Length 4.5 mm.; breadth 2.35 mm.

PARATYPES: Mostly pithy castaneous with a slight metallic sheen. Length 3.9–4.7 mm.; breadth 2.1–2.7 mm.

VITI LEVU: Holotype, male (BISHOP 2445), hill behind Suva, 100 m., Feb. 6, 1952, Gressitt; allotype, female, same data; one paratopotype, same data; 48 paratypes (BISHOP, BM, US, CSIRO), Lami Quarry, May 1951, Mar. 1955, Krauss; one, Vuti Dawa, Aug. 27, 1925, W. H. Ford; one, Belt road, 25 km. west of Suva, July 22, 1938, Zimmerman; one, 6 km. south of Nandarivatu, 700 m., Sept. 9, 1938, Kondo.

There is one doubtful specimen from Tuvutha, Lau, Sept. 10, 1924, Bryan, and another from Navai Mill, near Nandarivatu, Sept. 17, 1933, Zimmerman.

Differs from *C. vitiensis* and *C. brunnea* in having the aedeagus of male distinctly toothed, instead of deeply emarginate, at middle of apex, and in having the pronotum more closely punctured.

86. *Colaspoides vitiensis* Bryant

Fig. 34d

Colaspoides vitiensis Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 250 (Makongai and Viti Levu; type in Brit. Mus.).

Reddish brown with metallic gloss; antenna and legs slightly paler. *Head* distinctly punctured, more closely so between eyes; *antenna* extending a little beyond middle of *elytron*; *prothorax* very convex, with large irregularly distributed punctures; *scutellum* impunctate, subtriangular; *elytra* with not very dense, but rather large punctures, becoming smaller and in regular striae posteriorly; femora unarmed. Length 4.5 mm.

VITI LEVU: Tamavua; Nausori. Mt. Victoria, west slope, 950 m., Tholo North, Nandarivatu, 1100 m., Navai Mill, Sept., Tholoi-suva, July 1938, Zimmerman; Navai Mill, Oct. 1937, Valentine; Lami, Mar. 1955, Krauss.

OVALAU: Wainiloka, Sept. 1937, Valentine.

VANUA LEVU: Nakawanga, on *Phaleria*, Oct. 1955, Gressitt.

CENTRAL FIJI: Makongai I. (type locality).

LAU: Tubutha I., Sept. 1924, Bryan.

HOST: *Phalalaria acuminata* (A. Gray) Gilg.

Subfamily CHRYSOMELINAE

Genus PLAGIODERA Redtenbacher

Plagiodes Redt., 1845, Gatt. Deutsch. Käferf.: 116 (type: *Chrysomela versicolor* Licharting (*armoraciae*, Redt. nec. Linn.); Europe, Asia).

Roundish, convex; metallic. Head broad; antenna short; prothorax transverse, oblique at side, emarginate anteriorly; *elytron* irregularly punctured in large part; epipleuron broad; tarsal claws simple.

87. *Plagiodes violaceipennis* Bryant

Plagiodes violaceipennis Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 594 (Natova; Ovalau; type in Brit. Mus.).

Fulvous with antenna darker distally, *elytron* metallic bluish purple. *Head* longitudinally impressed between eyes; *antenna* with scape longer than second segment and about equal to third, last seven segments more flattened and subequal; *prothorax* smooth and shiny, more than twice as broad as long; *elytron* finely and irregularly punctate, broadest behind middle, apical angle produced into a minute tooth, lateral border slightly flattened and reflexed, humeral callus strongly marked, base slightly depressed; central portions of abdominal sterna smooth and shiny, with sides unevenly punctured, last sternite slightly notched. Length 8 mm.

VITI LEVU: Natova (type locality).

OVALAU: (type series).

VANUA LEVU: Nakawanga and Navukuru, Oct. 1955, Gressitt; five specimens.

MAKONGAI: May 1941, Lever; several specimens.

LAU: Yathata, Oct. 1924, Bryan; 60 specimens.

Subfamily GALERUCINAE

KEY TO FIJIAN GENERA OF GALERUCINAE

1. Elytral epipleuron narrow from before middle (or pronotum irregular and elytron shorter than abdomen); anterior coxal cavity open behind; pronotum transversely grooved or irregular. 2
Elytral epipleuron gradually narrowed; anterior coxal cavity closed behind; pronotum convex, or broadly and evenly concave, but not narrowly grooved across middle. 5
- 2(1). Elytral epipleuron gradually narrowed. 3
Elytral epipleuron suddenly narrowed anterior to middle; tarsal claws bifid; pronotum with a slightly sinuate groove. **Aulacophora**
- 3(2). Elytron entire; hind wing present; pronotum transversely grooved. 4
Elytron shorter than abdomen; hind wing absent; pronotum irregular; tarsal claws bifid. **Khasia**
- 4(3). Antenna simple in male, slender.
. **Haplosomoides**
Antenna stout, with sixth, seventh, or eighth segments enlarged in male.
. **Cerophysa**
- 5(1). First hind tarsal segment much shorter than one-half tibial length. 6
First hind tarsal segment about one-half as long as tibia. **Metrioidea**
- 6(5). Tarsal claws bifid; pronotum broadly concave. **Malacotheria**

Tarsal claws appendiculate; pronotum convex, with one or two slight depressions on side of disc. . . . **Plesistia**

Tribe OIDINI

Genus AULACOPHORA Duponchel and Chevrolat

Aulacophora Duponchel and Chevrolat, 1842, IN d'Orbigny, Dict. Univ. Hist. Nat. 2: 337 (type: *Galleruca quadraria* Olivier; Europe); Maulik, 1936, Fauna of India, Col. Chrys. Galeruc., 169.

Raphidopalpa, *Rhaphidopalpa*, *Ceratia*, *Orthaulaca*. (See Gressitt, 1955, Insects of Micronesia 17(1): 22 for fuller synonymy.)

Body fairly broad; antenna slender, sometimes with some segments broadened in males; pronotum with a sinuous or transverse groove across disc just behind middle.

KEY TO FIJIAN SPECIES OF *Aulacophora*

1. Elytron unicolorous, yellow or black; prothorax obtusely rounded at side. 2
Elytron pale marked with a large basal and a large subapical black area, the former nearly reaching suture; prothorax subangulate at side. **quadrifasciata**
2. Dorsum entirely testaceous to reddish testaceous; elytron distinctly broadened behind middle. **similis**
Elytron black, shiny, suboblong, hardly broadened behind middle. **nigrivestis**

88. *Aulacophora nigrivestis* (Boisduval)

Galleruca nigrivestis Boisduval, 1835, Voyage Astrolabe, Col.: 548 (New Holland; type in Paris Mus.).

Aulacophora nigrivestis, Allard, 1889, Soc. Ent. de France, Ann. 57: 310; Baly, 1889, Ent. Soc. London, Trans. 1889: 301.

Ceratia (Orthaulaca) nigrivestis, Weise, 1924, Coleopt. Cat. 78: 15.

Testaceous; elytron shiny black; abdomen black except for extreme apex; antenna ochra-

ceous with third to eighth segments pitchy. Antenna slender; prothorax broadest one-third its length from apex, but not angulate at side, the disc with a broad slightly obtuse groove just behind middle; elytron finely punctured. Length 9–9.5 mm.; breadth 4.4–4.8 mm.

VITI LEVU: Nandarivatu, 700 m., Nov. 1940, Degener; Nandarivatu, 800 m., at light, Sept. 6–8, 1938, Zimmerman.

89. *Aulacophora quadrimaculata* (Fabricius).

Crioceris quadrimaculata Fabr., 1781, Spec. Ins. 1: 152 ("Cape of Good Hope"; type in Brit. Mus.).

Aulacophora quadrimaculata Maulik, 1929, *Insects of Samoa* 4(3): 194; Veitch and Greenwood, 1921, Linn. Soc. N. S. Wales, Proc. 46: 511; Lever, 1942, Agr. Jour. [Fiji] 13(2): 48; Gressitt, 1955, *Insects of Micronesia* 17(1): 26.

Galleruca austrocaledonica Montrouzier, 1861, Soc. Ent. de France, Ann. 4(1): 299 (New Caledonia).

Aulacophora tetrastictoptera Lea, 1924, Queensland Mus., Mem. 8: 50.

Testaceous, slightly more ochraceous on pronotum, marked with black on hind portion of head, except median line, with a large basal and a large subapical black area on elytron; ventral surfaces with most of metasternum and abdomen black. Antenna with third segment slightly thickened distally in male; prothorax sinuate at side, broadest and subangulate anterior to middle, with disc finely and irregularly punctured and with a slightly sinuate, shallow, transverse groove just behind center; elytron finely punctured. Length 4.6–7 mm.; breadth 2.3–3.4 mm.

YASAWA: Yalobi, Waya I., July 1937, St. John.

VITI LEVU: Lowlands.

OVALAU: Andubangda, July 1938, Zimmerman.

LAU: Vanua Mbalavu, Sept. 1924, Bryan;

Wailangilala, Sept. 1924, Bryan; Oneata, Aug. 1924, Bryan.

KANDAVU: Wai Salima, Ndavingeile, and Kaivala, Apr. 1941, Krauss.

HOSTS: *Citrullus vulgaris* Schrad., *Cucurbita pepo* DC, and other cucurbits.

90. *Aulacophora similis* (Olivier) Fig. 35

Galeruca similis Olivier, 1808, Entomologie 6: 624, no. 93, pl. 2, fig. 23 (E. Indies).

Orthaulaca similis, Weise, 1892, Deutsche Ent. Zeitschr. 1892: 393.

Aulacophora fabricii, Knowles, 1907, Legislative Council Paper, Fiji, No. 13, Report for 1906; Jepson, 1911, Fiji Dept. Agr., Council Paper 25: 58.

Aulacophora argyrogaster, Veitch and Greenwood, 1921, Linn. Soc. N. S. Wales, Proc. 46: 511.

Aulacophora similis, Maulik, 1929, *Insects of Samoa* 4(3): 192; Gressitt, 1955, *Insects of Micronesia* 17(1): 28, fig. 8.

? *Aulacophora coffeae*, Greenwood, 1940, Linn. Soc. N. S. Wales, Proc. 65: 215; Lever, 1942, Agr. Jour. [Fiji] 13(2): 48; Evans, 1952, Injur. Insects Brit. Commonwealth: 119.

MALE: Ochraceous; metathorax, abdomen (except end of last segment), and middle and hind legs black; antenna slightly brownish on

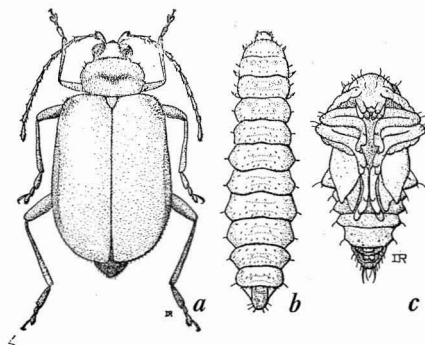


FIG. 35. *Aulacophora similis* (Oliv.): a, Adult male; b, larva, dorsal view; c, pupa, ventral view (Micronesian specimens, after Gressitt, 1955, *Insects of Micronesia* 17(1): 29).

third to fifth segments, pitchy on remainder. *Head* slightly hairy and finely punctured anteriorly, smooth on occiput; *antenna* three-fourths as long as body, slender except for swollen and somewhat flattened scape; third and fourth segments oblique apically; prothorax subtrapeziform, broadest slightly behind apex, with a deep transverse depression which is widened and bent slightly backward at middle; *elytron* finely and irregularly punctured and with humeral area clothed with fine erect hairs; *last sternite* with a large concave oblong process with a deep narrow emargination on each side.

FEMALE: Antenna two-thirds as long as body; scape less swollen; pronotum less deeply grooved; humerus not pubescent; last sternite with a broad terminal emargination.

Length 6–7.5 mm.; breadth 2.6–3.6 mm.

YASAWA: Yalobi, Waya I., July 1937, St. John.

VITI LEVU: Nandi, June 1913, Illingworth; Nandovi, Singatoka, May 1915, Veitch; Waito, Tailevu, Sept. 1937, Valentine.

OVALAU: Levuka, July 1938, Zimmerman.

VANUA LEVU: Lambasa, Oct. 1955, Gressitt.

TAVEUNI: Ngathabula (Qacabula), on pumpkin, Nov. 1937, Valentine.

LAU: Ongea I., Oneata I., Komo I., Aug. 1924, Bryan.

CENTRAL FIJI: Matuku I., July 1924, Bryan; Naroi, Moala I., Aug. 1938, Zimmerman.

KANDAVU: Wai Salima, Apr. 1941, Krauss.

HOSTS: *Citrullus vulgaris* Schrad., *Cucurbita pepo* DC, *Cucumis melo* L., *C. sativus* L., and other cucurbits.

Knowles (1907) and Jepson (1911) reported *Aulacophora fabricii* Baly as damaging melons and pumpkins in Fiji. Lever (1942) reported *A. coffeae* in addition to *A. similis*, and stated that Knowles' record applies to *A. coffeae*. We have not been able to verify the records of *A. coffeae*.

Tribe GALERUCINI

Genus MALACOTHERIA Fairmaire

Malacotheria Fairmaire, 1882, Soc. Ent. de

France, Ann. Ser. 6, 1: 486 (type here designated as *M. funerea* Fairm.; Fiji).

Head nearly as broad as prothorax; pronotum concave longitudinally, partly smooth; elytron finely and irregularly punctured, often carinate at side; antennal segments subequal, with second shorter.

The species below have been difficult to delimit. There are clearly at least three species, but perhaps more, for there is much variation within each series, and the material at hand does not seem to fit well with the original descriptions. This genus is found in Fiji and the Papuan subregion.

KEY TO FIJIAN SPECIES OF *Malacotheria*

1. Body less than twice as long as broad; elytron feebly carinate or not carinate... 2

Body more than twice as long as broad; elytron distinctly carinate along side....

..... *lateritia*

2. Pronotum largely smooth, subglabrous, black in center; elytron pale brown, with silvery pubescence..... *funerea*

Pronotum pubescent, in part densely punctured; elytron dull with thin golden buff or silvery buff pubescence... *strigiscuta*

91. *Malacotheria funerea* Fairmaire

Fig. 36a

Malacotheria funerea Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 487 (Viti; type in Paris Mus.).

Pale brown, pitchy on occiput, central portion of pronotum, and scutellum; pubescence silvery on elytron. *Head* slightly concave on occiput, feebly punctured; *antenna* with fourth and fifth segments longest; *pronotum* concave, smooth, feebly punctured, subglabrous; *elytron* finely and irregularly punctured, distinctly broadened behind middle. Length 6.7–7.7 mm.; breadth 3.5–4.1 mm.

VITI LEVU: Mt. Victoria and Nandarivatu, Sept. 1938, Zimmerman; seven specimens.

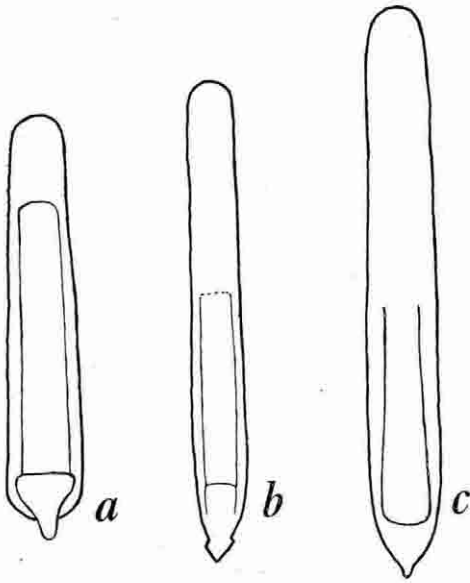


FIG. 36. *a*, *Malacotheria funerea*, aedeagus; *b*, *Malacotheria strigiscuta*, aedeagus; *c*, *Malacotheria lateritia*, aedeagus.

92. *Malacotheria strigiscuta* Fairmaire

Fig. 36*b*

Malacotheria strigiscuta Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 487 (Viti, Ovalau; type in Paris Mus.).

Pale brown, darker on occiput and center of pronotum; tibiae, tarsi, and antenna largely dull. *Head* concave on occiput; third antennal segment short; *pronotum* concave, distinctly punctured, pubescent, entirely pale or darkened only on center; *elytron* closely punctured, somewhat distinctly carinate at side. Length 6–7.2 mm.; breadth 2.8–3.4 mm.

VITI LEVU: Nandarivatu, Sept. 1938, Belt road, 70 km. west of Suva, July 1938, Zimmerman.

OVALAU: Thawathi, and Draiba trail, July 1938, Zimmerman.

Nine specimens.

93. *Malacotheria lateritia* Fairmaire

Fig. 36*c*

Malacotheria lateritia Fairm., 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 488 (Viti; type in Paris Mus.).

Brown, paler on prothorax and ventral surfaces, nearly black on head; antenna and legs pale, annulated with darker. *Head* generally somewhat concave on occiput; *pronotum* concave, somewhat punctured, pubescent, less acute at anterior angle than in preceding two species; *elytron* finely punctured, distinctly carinate at side. Body narrower than in preceding two species. Length 5.5–7 mm.; breadth 2–2.8 mm.

VITI LEVU: Nandarivatu, Navai Mill, and Korovou, Tailevu, Sept. 1937, Valentine; Nandarivatu, ridge west of Vatuthere, Sept., Belt road 70 km. west of Suva, July 1938, Zimmerman; Lami Quarry, near Suva, May 1951, Krauss.

OVALAU: Draiba trail, Thawathi, July 1938, Zimmerman.

VANUA LEVU: Nakawanga, on *Pipturus*, Oct. 1955, Gressitt.

Thirty-one specimens.

HOST: *Pipturus argenteus* var. *lanosus* Skottsdb.

Genus PLESISTIA Maulik

Plesistia Maulik, 1929, Insects of Samoa 4(3): 198 (type: *P. brunnea* Maulik; Samoa, Fiji).

Antenna reaching middle of elytron, first and fourth segments long; prothorax transverse, side rounded, each angle with a seta; elytron with ten ribs including a short scutellar one, the suture raised and alternate ribs more strongly raised; fore coxal cavity closed; tarsal claw with angular projection at base.

94. *Plesistia brunnea* Maulik

Plesistia brunnea Maulik, 1929, Insects of Samoa 4(3): 199, figs. 10, 11 (Samoa, Fiji; type in Brit. Mus.).

Gray-brown; last eight antennal segments black above; legs pitchy distally. *Head* impunctate, grooved medially; scape long, clavate; second antennal segment shorter than third; *prothorax* flattened, with shallow depressions; *elytron* ribbed. Length 8 mm.

VITI LEVU: Thuvu (Cuvu). Korovou, Tailevu, Sept. 1937, Valentine; ten specimens.

Samoa (type locality).

There is some question as to whether the species was introduced from Samoa to Fiji, or vice versa.

Tribe LUPERINI

Genus HAPLOSOMOIDES Duvivier

Haplosomoides Duviv., 1890, Soc. Ent. de Belg., C. R. 34: XXXIV (type: *Rhaphidopalpa serena* Boheman; E. Indies).

Elongate; head larger than prothorax; antenna slender; prothorax trapeziform, wider at apex, constricted and transversely grooved; elytron long, swollen near scutellum, deeply punctured in center; tarsal claws appendiculate.

95. *Haplosomoides binotata* Bryant, n. sp.

Fig. 37

Narrow and elongate; head, antenna, prothorax, legs, and underside fulvous; elytron shining dark brown or blackish, with two median flavous patches, a fulvous stripe from the shoulder, and the suture narrowly fulvous not extending to the apex.

Head fulvous, nitid, impunctate, a transverse depression between eyes; eye somewhat prominent. Antenna fulvous, extending to middle of elytron, first segment longest, about three times as long as second; third to sixth about equal; third about twice as long as second; four apical segments each slightly shorter than sixth. Prothorax slightly transverse, fulvous; side margined and narrowly fuscous; anterior portion slightly broader than head; side margin contracted to base. Scutellum fulvous, large, triangular. Elytron elongate and narrow, feebly costate at side, slightly broadening to apex, which is rounded; dark shining brown with a median flavous patch, joined to shoulder by a fulvous stripe; suture narrowly fulvous not extending to apex, covered with large shallow punctures. Legs and underside fulvous; tarsus with first segment elongate, equal to remainder. Length 4 mm.

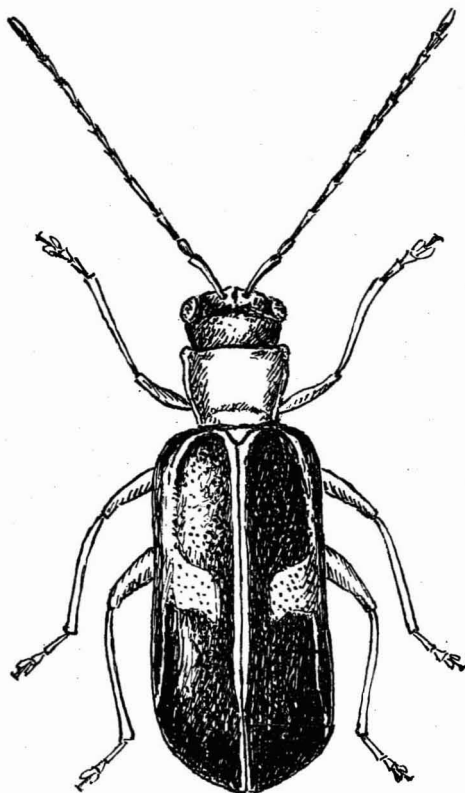


FIG. 37. *Haplosomoides binotata* Bryant, n. sp., type.

VITI LEVU: Holotype (BISHOP 2447), Nandarivatu, Sept. 6, 1938, 1100 m., Zimmerman; five specimens. Tholo-i-suva, July 25, 1938, Zimmerman; one specimen.

OVALAU: Andubangda, July 15, 1938, Zimmerman.

A very distinct species on account of its pattern. Allied to *Mimastra costata* Baly from Formosa, which Ogloblin has placed in the genus *Haplosomoides*.

Genus KHASIA Jacoby

Khasia Jacoby, 1899, Entomologist 32: 83 (type: *Khasia kraatzi* Jac.; S. India).

Head nearly as broad as prothorax; prothorax narrowed posteriorly; elytron short, narrowed or oblique apically; hind wing lacking.

The following do not fit perfectly in this

genus, and in some ways are closer to *Shaira* Maulik.

KEY TO FIJIAN SPECIES OF *Khasia*

- 1. Elytron distinctly rounded apically, somewhat smooth.....2
- Elytron obliquely truncate apically, rugose.....3
- 2(1). Prothorax with anterior angle forming a right angle; pronotum distinctly punctured; elytron carinate on humerus, sinuate at side, punctured basally.**nigra**
- Prothorax with anterior angle obtuse; pronotum feebly punctured; elytron smooth on humerus, evenly rounded at side, almost impunctate.**nitida**
- 3(1). Pronotum almost entirely rugose-punctate.**r. rugosa**
- Pronotum with a transverse central area raised and almost impunctate.**r. callosa**

96. *Khasia nigra* Bryant

Khasia nigra Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 598 (Nausori; type in Brit. Mus.).

Black, shiny, slightly metallic, except for antennal base, femora, coxae, metasternum, and last abdominal sternite, which are fulvous. *Head* broad, rugose; *antenna* reaching elytral apex; *scape* long, broadening to apex, stouter than remainder; third longer than second; *prothorax* about as broad as long, very rugose, side constricted towards base; *elytron* widened towards apex, slightly rugose, basal half more so than apical, but much smoother than prothorax, longitudinally deeply impressed from shoulder for half length of elytron; side costate from humerus to just before apex; apex rounded; first four abdominal sternites feebly punctured. Length 3.5 mm.

VITI LEVU: Nausori (type locality). Tholoi-suva (Colo-i-suva), June 1924, Bryan, July

1938, Zimmerman; Apr. 1951, Krauss; Naitivhula, Tailevu, Sept. 1937, Valentine; Lami, Mar. 1951, Krauss; 20 specimens.

OVALAU: Andubangda and Draiba trail, July 1938, Zimmerman; two specimens.

97. *Khasia nitida* Bryant, n. sp.

Fig. 38

Shining brown, head and prothorax impunctate, elytron very feebly punctate-striate; four segments of abdomen exposed, nitid and impunctate; antenna and legs pale brown.

Head pale brown, nitid, transversely impressed between eyes, with a median longitudinal impression on basal half impunctate. *Antenna* extending well beyond base of elytron; first segment more dilated and longer than second; third slightly longer than second; third to eleventh all about equal, pale brown, terminal segments slightly pubescent. *Prothorax* pale brown, nitid, impunctate, slightly transverse, widest about middle, slightly contracted in front and more so at base, slightly broader than head; base as

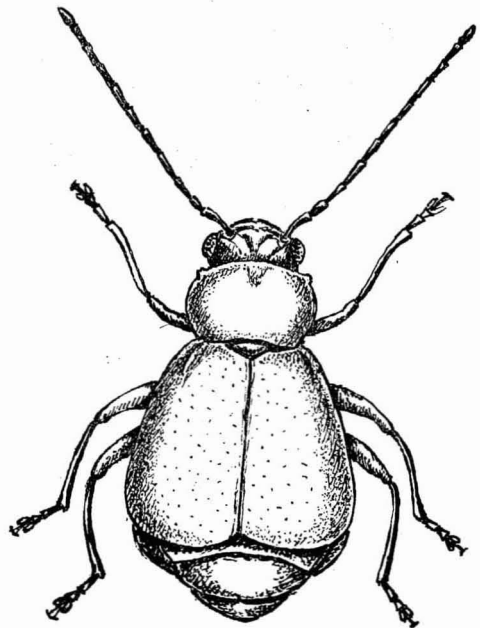


FIG. 38. *Khasia nitida* Bryant, n. sp., type.

broad as elytra at bases; basal margin slightly contracted in middle. *Scutellum* transverse, pale brown, nitid. *Elytron* pale brown with a broad longitudinal fuscous patch, gradually broadening to the rounded apex, very finely and not closely punctured. *Abdomen* exposed in both sexes, more so in the female. *Legs* and underside pale brown. Length 3.5–5 mm.

VITI LEVU: Holotype (BISHOP 2448), Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman. Eight paratypes (BISHOP, BM): Navai Mill, Nandarivatu, Oct. 13, Valentine; Navai-Nasonga trail, 1000 m., Sept. 12, 1938, Zimmerman; Mt. Korombamba, Aug. 1, 1938, Zimmerman; Lami, Mar. 1951, Krauss.

Differs from *K. nigra* Bryant in color, and in not being rugosely punctured.

98. *Khasia rugosa rugosa* Bryant, n. sp.

Fig. 39

Dull brown; head black, prothorax and elytron with side margins broadly black, in some extending to suture; entirely rugosely punctured; legs fulvous with apical third black.

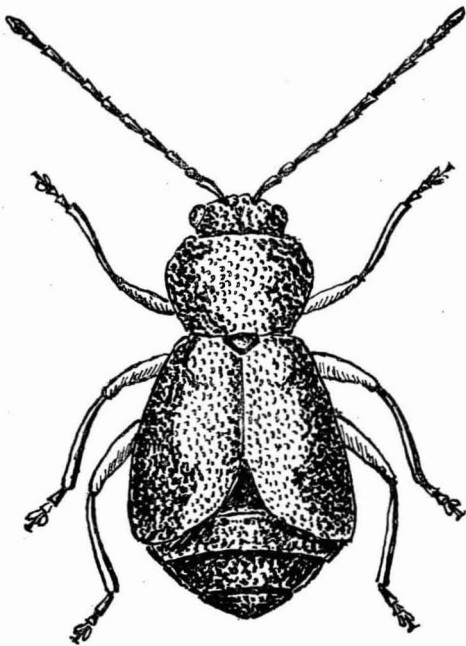


FIG. 39. *Khasia rugosa rugosa* Bryant, n. sp., type.

Head black, very rugosely punctured; *antenna* extending slightly beyond base of elytron, fulvous with apical segments tinged with fuscous; first segment longest, about twice as long as second. *Prothorax* dull brown with side margin broadly black; slightly transverse, widest just before middle, contracted to base, very strongly and rugosely punctured. *Scutellum* dull brown, impunctate. *Elytron* dull brown with side margin broadly black, in some extending to suture, rugosely punctured; punctures close and irregular; about as wide as base of prothorax, and gradually broadening to apex, somewhat truncate at apex and contracted upwards to suture, exposing two rugosely punctured abdominal segments. *Legs* fulvous with apical third of each tibia black. *Underside* with ventral segments of abdomen not so rugosely punctured.

VITI LEVU: Holotype (BISHOP 2449), Nandarivatu, Sept. 11, 1938, 800 m., Zimmerman, eight specimens; Tholo-i-suva, 175 m., July 21, 1938, Zimmerman, five specimens; Mt. Korombamba, 400 m., Aug. 1, 1938, Zimmerman, two specimens.

OVALAU: Thawathi, July 16, 1938, Zimmerman.

Easily distinguished from the other two species from Fiji by its very rugose appearance.

99. *Khasia rugosa callosa* Gressitt, n. subsp.

MALE: Black; antenna partly brownish in basal third; central portion of pronotum, from apex to base, testaceous; scutellum and base of elytron testaceous; thoracic sterna, coxae, and femora and tibiae (except apices of both) testaceous.

Head short, deeply punctured. *Antenna* reaching beyond middle of elytron; scape nearly as long as next two combined; fourth longer than any of succeeding. *Prothorax* broader than head, subhexagonal, widest at middle; disc with a broad, nearly impunctate area across central portion, the area partly divided into three portions; remainder densely rugose-punctate. *Scutellum* swollen. *Elytron*

less than twice as long as broad, obliquely truncate apically, densely rugose-punctate. Length 2.5 mm.; breadth 1.6 mm.

VANUA LEVU: Holotype, male (BISHOP 2450), Nakawanga, center of island, at 70 m., Oct. 8, 1955, Gressitt; paratopotype, male, Oct. 9, Gressitt.

Differs from the preceding in having a broad impunctate callus across the center of the pronotum, the elytron more shiny and more coarsely rugose, and the pale markings more restricted.

Genus CEROPHYSA Chevrolat

Cerophysa Chevrolat, 1837, in Dejean, Cat. Col. ed. 2: 379; ed. 3: 403; 1843, IN d'Orbigny, Dict. Univ. Hist. Nat. 3: 339 (type: *Gal-leruca nodicornis* Wiedem.; Java); Chapuis, 1875, Gen. Col. 11: 181.

Ozomena Chevrolat, 1845, Dict. Univ. Hist. Nat. 4: 5.

Head large, almost as broad as prothorax; antenna long, cylindrical, with ninth segment greatly enlarged in male; prothorax trapeziform, broader distally, transversely grooved; elytron finely and irregularly punctured.

This is an Oriental genus.

100. *Cerophysa vitiensis* Bryant

Cerophysa vitiensis Bryant, 1941, Ann. and Mag. Nat. Hist. Ser. 11, 8: 103, fig. 2 (Tamavua; type in Brit. Mus.).

Head, thorax and abdomen ochraceous, paler beneath; elytron black; antenna reddish brown, nearly black on ninth segment; legs ochraceous to pale brown. *Head* smooth and shiny above; *antenna* with second segment short, and ninth in male very broad, obliquely concave subapically; *prothorax* smooth, shiny, nearly impunctate; *elytron* with puncturation fine, but somewhat variable. Length 7-8 mm.; breadth 3.2-4 mm.

VITI LEVU: Korovou, Tailevu, Aug. 1937, Valentine; ridge west of Vatuthere, 800 m., Sept., and Tholo-i-suva, July 1938, Zimmerman.

VANUA LEVU: Nakawanga, 80 m., on *Gironniera*, Oct. 1955, Gressitt.

HOST: *Gironniera celtidifolia* Gaud.

Tribe MONOLEPTINI

Genus MONOLEPTA Erichson

Monolepta Er., 1843, Arch. f. Naturgesch. 9(1): 265 (type: *M. pauperata* Er.; Africa).

Subgenus METRIOIDEA Fairmaire

Metrioidea Fairm., 1882, Soc. Ent. de France, Ann. 50: 489 (type: *M. signatipennis* Fairm.; Fiji).

It is not certain that *Metrioidea* should be a subgenus of *Monolepta*. Yet all the species below seem to be structurally very closely related, and to differ from typical species of *Monolepta* in very minor respects, other than having the tibial spines minute. In addition to the type species, three species from the Malay subregion and Ceylon have previously been assigned to *Metrioidea*.

KEY TO FIJIAN SPECIES OF *Metrioidea*

- 1. Length of body over 2.8 mm.; dorsum pale with generally some vague oblique or irregular dark streaks 2
- Length of body less than 2.7 mm.; dorsum black to brown, sometimes with pale spots, but without dark streaks 4
- 2(1). Pronotum generally pale and without distinct dark markings; elytron rarely with distinct dark markings; length less than 3.4 mm. 3
- Pronotum with a pair of longitudinal pitchy stripes on center, and generally other dark markings; elytron with two incomplete dark bands; length 3.5-5 mm. s. *signatipennis*
- 3(2). Ochraceous, with generally a few vague dark markings; length 2.6-3.4 mm. s. *lauana*
- Testaceous, almost entirely pale; length 2.4-3.2 mm. s. *kandavuna*

- 4(1). Dorsum black to pitchy brown, rarely with one or two pale areas on elytron; pronotum distinctly punctured; main islands 5

Dorsum uniformly castaneous brown, rarely a little paler or darker; pronotum generally feebly punctured or nearly impunctate; in Moala **moala**

- 5(4). Dorsum entirely black, or black with one or two pale areas on elytron; pronotum sparsely punctured. . . **vitiensis**

Dorsum pitchy red-brown; pronotum rather closely punctured. **zimmermani**

101. *Monolepta (Metrioidea)*
signatipennis (Fairmaire), n. comb.

Metrioidea signatipennis Fairm., 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 489 (Viti, Ovalau; type in Paris Mus.).

Pale brown: head darker on median line; pronotum with a pair of short longitudinal lines, or a "V," on center and more or less dark at side; elytron partly dark on suture and with two broad, incomplete dark bands, one just anterior to middle, other near apex, and a lesser mark behind humerus; metathorax somewhat dark. *Head* a little narrower than prothorax; eye very large, feebly emarginate; *antenna* slender, two-thirds as long as body, with scape longer than next two segments combined, and fourth nearly as long as scape; *prothorax* a little broader than long, slightly rounded at side, truncate anteriorly, strongly rounded basally, with disc even and feebly punctured; *elytron* finely and irregularly punctured, rounded apically. Length 3.5–5 mm.; breadth 2.3–2.6 mm.

VITI LEVU: Mt. Victoria and Nandarivatu, Sept. 1938, Zimmerman; Mt. Korombamba, Aug. 1938, Zimmerman; Belt road, 25 km. west of Suva, July 1938, Zimmerman; ridge west of Vatuthere, Sept. 1938, Kondo.

OVALAU: Draiba trail, Andubangda, and near Vuma, July 1938, Zimmerman.

Forty specimens.

102. *Monolepta (Metrioidea)*
signatipennis lauana Gressitt, n. subsp.

Testaceous, somewhat more ochraceous above, with slightly darkened side of pronotum, and three feeble, incomplete, elytral bands.

Head with frons punctured at side and occiput quite smooth. *Antenna* three-fourths as long as body, with second and third segments subequal. *Prothorax* a little broader than long, rounded-obtuse at side, widest one-third from apex; disc finely punctured, in part impunctate. *Elytron* finely punctured, distinctly broadened preapically. Length 3.3 mm.; breadth 2 mm.

PARATYPES: Length 2.6–3.4 mm.; breadth 1.5–2.1 mm.

LAU: Holotype (BISHOP 2451) Bavatu, Vanua Mbalavu I., N. Lau Group, Aug. 16, 1938, Kondo. Fifteen paratypes (BISHOP, BM, US): Buthalevu, Vanua Mbalavu, 75 m., Aug. 10, 1938, Zimmerman; Mvana, Vanua Mbalavu, at seashore, Aug. 9, 1938, Zimmerman; Loma Loma, Vanua Mbalavu, Aug. 5, 1938, Zimmerman; Mbavatu, Vanua Mbalavu, Aug. 16, 1938, Zimmerman; Thikombia I., Sept. 26, 1924, Bryan; Navutu-i-loma, Aug. 10, 1924, Bryan; Yuvutha, Yangasa Cluster, Aug. 11, 1924, Bryan; 2 km. south of Naronia, Mango I., Aug. 14, 1938, Zimmerman.

Differs from the typical form in being distinctly smaller, with feebler markings, and in having the side of the prothorax more obtuse.

103. *Monolepta (Metrioidea)*
signatipennis kandavuna Gressitt, n. subsp.

Pale ochraceous, still paler on abdomen and hind femur, slightly darker on parts of hind thorax, median line of vertex and occiput, and side of pronotum.

Head nearly as broad as prothorax, smooth. *Prothorax* rounded-obtuse at side, broadest one-fourth from apex, feebly and irregularly punctured. *Elytron* finely punctured. Length 3.15 mm.; breadth 1.65 mm.

PARATYPES: Length 2.4–3.2 mm.; breadth 1.2–1.8 mm.

KANDAVU: Holotype (BISHOP 2452), Yawi, Apr. 28, 1941, Krauss. Eighteen paratypes (BISHOP, BM, US, CSIRO, CAS): two paratopotypes, same data; remainder Tiliva and Wai Salima, Apr. 30, 1941, Krauss.

Differs from the preceding subspecies in being still smaller, slightly paler, and almost without dark markings, thus differing from the typical form in being much smaller and almost one-colored.

104. *Monolepta (Metrioidea) moala*

Gressitt, n. sp.

MALE: Reddish castaneous, paler on front of head; antenna and legs testaceous. Body subglabrous above, with a few fine pale hairs on elytral border; antenna, legs, and ventral surfaces with short sparse oblique pale hairs.

Head a little narrower than prothorax, about as broad as long, impunctate, with a pair of transverse swellings on vertex, smooth on occiput. *Antenna* three-fourths as long as body, slightly flattened beyond fifth segment; scape slightly longer than, and fourth subequal to, second and third segments combined; following subequal. *Prothorax* nearly as long as broad, obtusely rounded at side, broadest one-fourth from apex, broader at apex than at base, truncate anteriorly and convex basally, in outline; disc even, smooth, feebly punctured. *Scutellum* triangular. *Elytron* broadest in apical third, singly rounded apically; disc finely, irregularly, and not very closely punctured. Length 2.75 mm.; breadth 0.93 mm.

FEMALE: Body broader, a little more heavily punctured. Length 2.45 mm.; breadth 1.4 mm.

PARATYPES: Length 1.6–2.5 mm.; breadth 0.9–1.4 mm.

CENTRAL FIJI: Holotype, male (BISHOP 2453), Matuku, Moala Group, July 6, 1924, Bryan; allotopotype (BISHOP), July 4. Thirty-seven paratopotypes (BISHOP, BM, US, CSIRO, CAS): July 4–6, 1924, Bryan.

Differs from *M. signatipennis* (Fairm.) in being smaller, more convex, darker and more uniformly colored.

105. *Monolepta (Metrioidea)*

zimmermani Bryant, new name

Monolepta modesta Bryant (nec Blackburn), 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 599 (Lautoka; type in Brit. Mus.).

Black to pitchy brown, nitid; prothorax with greenish reflections; antenna, tibiae, and tarsi flavous. *Head* smooth; *antenna* with fourth segment about equal to scape, fifth a very little shorter than fourth; *prothorax* nitid, rather strongly punctured, narrower than elytral base, slightly broader than long, very little contracted at base, from middle slightly converging to apex; *elytron* strongly and rather closely punctured, punctures about as strong as those on prothorax, side gradually widening from base to beyond middle and there rounded to apex; *abdominal sterna* feebly punctured and slightly pubescent.

FEMALE: With second and third antennal segments slightly longer. Length 2.4–2.7 mm.; breadth 1.15–1.3 mm.

VITI LEVU: Lautoka (type loc.). Tholo-i-suva (Colo-i-suva), June 1924, Bryan; Natabakula, near Singatoka, Apr. 1941, Krauss.

OVALAU: Wainiloka, Draiba trail, July 1938, Zimmerman; four specimens.

A specimen from Kalambu, near Suva, Apr. 1941, Krauss, does not agree in puncturation.

106. *Monolepta (Metrioides) vitiensis*

Bryant

Monolepta vitiensis Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 599 (Labasa; type in Brit. Mus.).

Blackish brown, nitid; antenna, frons, legs, humeri, and venter testaceous. *Head* smooth, a transverse impression between eyes; *antenna* filiform, reaching beyond middle of elytron; scape long, slightly curved, longer than second and third segments combined, second and third subequal, second slightly more swollen than third, fourth equal to second and third combined; *prothorax* strongly punctured, much narrower than elytra, very little broader than long, side nearly straight;

elytron closely punctured, but less strongly so than on prothorax, slightly depressed behind shoulder, broadest behind middle, rounded at apex; *abdominal sternites* slightly pubescent; first hind tarsal segment longer than rest. Length 2.2–2.5 mm.; breadth 1–1.2 mm.

VANUA LEVU: Lambasa (type loc.). Nakawanga, 45 m., on *Inocarpus*, Oct. 1955, Gressitt; 15 specimens.

HOST: *Inocarpus fagiferus* (Parkinson) Fosberg.

This species is apparently variable in color. All of the ten females in the above series are entirely black above; two of the males are entirely black above; one male has only the humerus pale, as in the type series; and two males have two large pale spots on the *elytron*. This species was observed to jump.

Subfamily *ALTICINAE*

KEY TO FIJIAN GENERA OF ALTICINAE

- 1. Antenna of 11 segments 2
 Antenna of 10 segments . . . *Psylliodes*
- 2(1). Anterior coxal cavity open behind . . . 3
 Anterior coxal cavity closed or nearly closed behind; pronotum with basal depressed area *Crepidodera*
- 3(2). Pronotum with a depression parallel to basal margin 4
 Pronotum without a depression parallel to basal margin 6
- 4(3). Elytral punctures in regular rows; body length less than 3 mm. 5
 Elytral punctures irregular; body length about 5 mm. *Altica*
- 5(4). Prothorax transverse, rounded at side *Manobia*
 Prothorax nearly as long as broad, subtrapeziform, broadest apically *Alema*
- 6(3). Elytral punctures irregular or obsolete; body length generally less than 2 mm. 7

- Elytral punctures generally in regular rows; body length 3 mm. or more. *Febra*
- 7(6). Posterior tibia not depressed at apex, which is rounded and furnished with a small spinule placed in the middle of the terminal border 8
 Posterior tibia depressed at apex, which is divided into two very short lobes, each usually ending in a short spinule *Aphthona*
- 8(7). Second antennal segment more slender than scape; prosternal intercoxal process narrow *Phyllotreta*
 Second antennal segment as stout as scape; prosternal intercoxal process broad, concave *Nesohaltica*

Genus *PHYLLOTRETA* Stephens

Phyllotreta Stephens, 1839, Man. Brit. Col.: 291 (type: *Chrysomela nemorum* L.; Europe); Maulik, 1926, Fauna of India, Col. Chrys. Halt.: 377.

Head as broad as prothorax; eye small; interantennal carina short; antenna reaching middle of *elytron*; scape clavate, second and third segments small; prothorax transverse, slightly rounded at side; *elytron* as a rule confusedly punctate; prosternum very narrow; fore coxal cavity open; hind tibia not channelled and with a small apical spine; first hind tarsal segment equal in length to remaining combined.

107. *Phyllotreta blackburni* Bryant

Phyllotreta blackburni Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 596 (Nadar, Cuvu; type in Brit. Mus.).

Bronzy black; five basal segments of antenna and bases of tibiae testaceous; *elytron* with a yellow discal stripe, bent in at base and dilated at apex. Dorsum closely and finely punctured.

VITI LEVU: Nandar; Thuvu. New Hebrides.

Genus APHTHONA Chevrolat

Apthona Chevrolat, 1842, IN d'Orbigny, Dict. Univ. Hist. Nat. 2: 5; Maulik, 1926, Fauna of India, Col. Chrys. Halt.: 366 (type *Altica cyparissiae* Koch; Europe).

Head with vertex impunctate, often tuberculate; antenna reaching middle of elytron; scape long and clavate; eye oval, prominent; prothorax transverse, without a basal transverse depression; elytron oblong, rounded at apex, finely and confusedly punctate; anterior coxal cavity open; hind tibia dilated from base to apex, outer side flat with edges set with fine bristles, and outer edge sometimes with spinules, apex often ending in a spine on outer side; first hind tarsal segment distinctly less than half as long as tibia.

KEY TO FIJIAN SPECIES OF *Apthona*

1. Dorsum black or blackish, rather distinctly punctured. 2
Dorsum reddish testaceous, nearly impunctate. **veitchi**
- 2(1). Pronotum rather sparsely punctured. 3
Pronotum rather closely punctured; dorsum greenish black, somewhat purplish on posterior portion of elytron; appendages dull reddish to slightly pitchy; length 2.9 mm. **lamia**
- 3(2). Pronotum strongly punctured, with a mid-basal longitudinal impression; hind femora black; length 2 mm.
. **greenwoodi**
Pronotum finely punctured without a longitudinal impression; hind femora reddish; length 1.6 mm. **senetiki**

108. *Apthona veitchi* Bryant

Apthona veitchi Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 595 (Cuvu; Lautoka; type in Brit. Mus.). Greenwood, 1940, Linn. Soc. N. S. Wales, Proc. 65: 215.

Flavous, shiny; labrum, apical antennal segments and hind femur darker. *Head* smooth,

shiny; frons carinate between antennal insertions; *antenna* reaching middle of elytron; scape equal in length to next two segments combined; fifth slightly longer than either fourth or sixth; *prothorax* smooth, shiny, a little broader than long, slightly rounded at side; *elytron* slightly dilated beyond middle, very feebly punctured; first hind tarsal segment equal to next two combined. Length 2 mm.

VITI LEVU: Thuvu; Lautoka.

OVALAU: Andubangda, Aug. 1938, Zimmerman; questionably this species.

HOST: Adult feeds on leaves of *Euphorbia chamissonis* Boiss (after Greenwood).

109. *Apthona greenwoodi* Bryant

Apthona greenwoodi Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 595 (Loloti; type in Brit. Mus.).

Black, shiny; labrum, antenna, fore and middle legs and hind tibia fuscous. *Head* finely punctured; *antenna* with first two segments about equal and thicker than following; *prothorax* transverse, with anterior angles oblique, strongly but sparsely punctured, a feeble longitudinal impression in middle at base; *elytron* strongly and irregularly punctured. Length 2 mm.

VITI LEVU: Loloti.

110. *Apthona lamia* Gressitt, n. sp.

MALE: Metallic greenish black above, in certain lights dull purplish on inner half of posterior two-thirds of elytron, and particularly so on ectoapical portion of elytron; front of head, ventral surfaces, and appendages largely testaceous; hind leg more reddish ochraceous.

Body broad. *Head* finely punctured in front, nearly impunctate on occiput. *Antenna* two-thirds as long as body, slender; scape a little longer, and a little stouter, than second segment; third as long as second, but more slender; fourth slightly longer than third, slightly shorter than fifth. *Prothorax* less than

two-thirds as long as broad, strongly convex, deeply and rather closely punctured, all four corners prominent. *Scutellum* rounded-triangular, nearly smooth. *Elytron* deeply, somewhat closely, and irregularly punctured, the punctures slightly finer apically; suddenly narrowed, and declivitous, apically. *Ventral surfaces* in part finely punctured. *Hind femur* nearly reaching to abdominal apex; hind tibia shallowly concave behind; first hind tarsal segment nearly as long as remainder combined. Length 1.8 mm.; breadth 1.2 mm.

FEMALE: Antenna one-half as long as body. Length 2.9 mm.; breadth 1.6 mm.

VITI LEVU: Holotype, female (BISHOP 2455), Lami Quarry, near Suva, May 1951, Krauss; allotype, female, Tholo-i-suva, Jan. 1955, Krauss; 9 paratopotypes, May 1951, Krauss; one paratype, Navai, Sept. 1950, Krauss; one, Tholo-i-suva, Apr. 1951, Krauss.

Differs from *A. greenwoodi* Bryant in being much larger, greenish instead of black, with the pronotum closely punctured, and the hind femur reddish instead of black.

111. *Aphthona senetiki* Gressitt, n. sp.
Fig. 40

FEMALE: Body shiny black to pitchy black above, dark reddish pitchy beneath; slightly pitchy on elytral disc; head pitchy anteriorly; eye pinkish silvery; antenna and fore and middle legs testaceous, in part tinged with pitchy; hind legs reddish castaneous.

Body narrow. *Head* largely impunctate, with a subtransverse groove behind a pair of swellings immediately behind antennal insertions. *Antenna* two-thirds as long as body, distinctly thickened distally; scape moderately stout, a little longer than second segment; third longer than second, and more slender; fourth to tenth subequal to third; last longer and much stouter. *Prothorax* three-fifths as long as broad, rounded at side, corners not very prominent, finely and sparsely punctured. *Scutellum* short, rounded-triangular. *Elytron* nearly three times as long as head and prothorax combined, distinctly, and irregularly

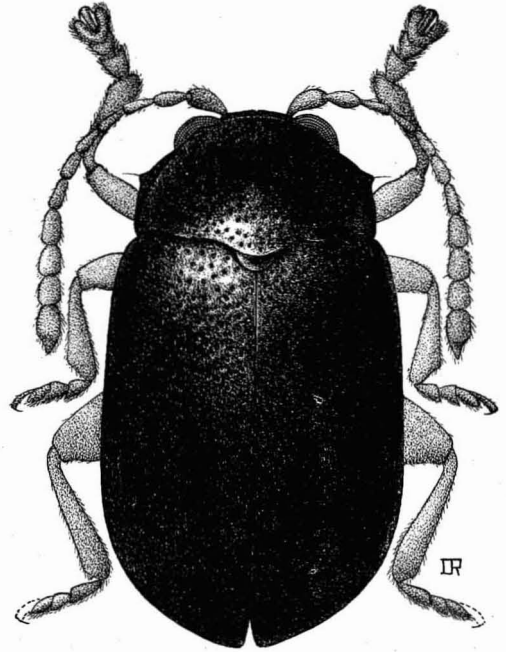


FIG. 40. *Aphthona senetiki* Gressitt, n. sp., type.

punctured throughout, the punctures mostly about as large as interspaces. First hind tarsal segment nearly as long as remaining combined. Length 1.6 mm.; breadth 0.95 mm.

VANUA LEVU: Holotype, female (BISHOP 2456), between Navakuru and Nakawanga, 400 m., Oct. 7, 1955, Gressitt.

Differs from *A. greenwoodi* Bryant in being smaller, more parallel-sided, with the hind femur reddish, the pronotum much more finely punctured, and without a longitudinal impression, and with the elytron a little more finely punctured. Named for Senetiki, government agricultural assistant, who accompanied me on the walk across Vanua Levu.

Genus *ALTICA* Müller

Altica Müller, 1764, Fauna Ins. Fridrichsdal.:

XIV; Fabricius, 1775, System. Ent. :112.

Haltica Koch, 1803, Ent. Hefte 2: 5 (type:

Chrysomela oleracea L.; Europe); Maulik,

1926, Fauna of India, Col. Chrys. Halt.: 418.

Head with frontal tubercles and a sharp frontal ridge; second and third antennal segments of equal thickness; third and fourth subequal in length; pronotum with deep transverse basal depression with a longitudinal groove at each end, elytron irregularly punctured; fore coxal cavity open.

112. *Altica corusca* Erichson

Haltica corusca Erichson, 1842, Arch. f. Naturgesch. Ser. 8, 1: 235; (Tasmania); Blackburn, 1896, Roy. Soc. S. Australia, Trans. 20: 73, 75.

Haltica gravida, Veitch and Greenwood, 1921, Linn. Soc. N. S. Wales, Proc. 46: 511.

Black, slightly tinged with purplish to bronzy. *Head* slightly shagreened, with a pair of feeble swellings between eyes; *antenna* with segments of equal thickness, and of equal length except for second which is half as long as others; prothorax micropunctulate, feebly grooved basally; *elytron* finely and irregularly punctured; *ventral surfaces* rather hairy. Length 4.2–5 mm.

LARVA: Dark brown to blackish; head blackish, paler at side; antenna and clypeus largely whitish; about 18 hairs on each side of head. Body with swollen areas dark brown and less sclerotized areas pale brown; pronotum somewhat generally sclerotized, with a strong basal transverse swelling, each side with seven bristles anteriorly and three basally; mesonotum and metanotum each with central, anterior, and posterior transverse swellings, each with a pair of bristles, a sublateral basal transverse swelling with two bristles, and a lateral swelling with three bristles, besides a small additional anterior spot on metanotum; first seven abdominal tergites each with anterior and posterior central transverse swelling with a pair of bristles, five sublateral tubercles each with one bristle, and a lateral swelling with two bristles. Length 8 mm. (Larva from Lami, Krauss.)

VITI LEVU: Nandarivatu, Navai Mill, Tholosisuva, Matawailevu, Zimmerman; Suva, Sin-

gatoka, Valentine; Matawailevu, St. John; Vunindawa, Lami, Ndeumba, Krauss; Nandi, Koronivia, Gressitt.

OVALAU: Thawathi, near Vuma, Wainiloka, Zimmerman, Bryan.

VANUA LEVU: Wailevu, Gressitt.

LAU: Lakemba I., Bryan.

KANDAVU: Vambea, Ono I., Krauss.

Tasmania, New Hebrides, Fiji. Four hundred specimens from Fiji.

HOST: *Jussiaea villosa* (*J. repens*), *J. suffruticosa* L., *Oryza sativa* L., on growing leaf tips of rice (Lever).

Genus CREPIDODERA Chevrolat

Crepidodera Chevrolat, 1844, IN d'Orbigny, Dict. Univ. Hist. Nat. 4: 441 (type: *Chrysomela nitidula* L.); Chapuis, 1875, Gen. Col. 11: 53.

Head deeply inserted in prothorax; antenna with terminal segments slightly thickened; pronotum with a deep transverse groove near base, the groove delimited at each end by a depression or short longitudinal groove; elytra seriate-punctate.

KEY TO FIJIAN SPECIES OF *Crepidodera*

1. Body largely pale 2
 - Body largely black or metallic, at least on elytra 3
- 2(1). Body entirely pale; pronotum finely punctured; elytron heavily punctured **elongata**
 - Distal antennal segments, suture, and side of elytron dark; pronotum impunctate; elytron feebly punctured **evansi**
- 3(1). Dorsum uniformly black 4
 - Prothorax differently colored from elytra 5
- 4(3). Prothorax deeply grooved; body twice as long as broad; a distinct postbasal elytral swelling **fijiensis**

Prothorax shallowly grooved; body less than twice as long as broad; elytron even basally *rotunda*

- 5(3). Pronotum greenish black; elytron metallic purplish, with a heavily punctured depression behind postbasal swelling *kraussi*

Pronotum testaceous; elytron brownish black, with a moderately punctured depression behind postbasal swelling *oceanica*

113. *Crepidodera oceanica* Gressitt, n. sp.

Fig. 41a

FEMALE: Fore body testaceous; antenna slightly dull distally; elytron pitchy purplish brown, slightly paler posteriorly; metathorax, abdomen, and hind femur pitchy red-brown; hind tibia and tarsus testaceous. Subglabrous above, with a few pale hairs on apical margin of elytron; appendages with short pale hairs, and last abdominal segment with a few at side.

Head nearly as broad as long, strongly carinate medially on frons and vertex, nearly impunctate on occiput. *Antenna* fully two-thirds as long as body; scape distinctly longer than second segment, subequal to third; third longer than fourth and shorter than fifth; sixth to tenth subequal to third; last longer. *Prothorax* nearly three-fourths as wide as elytra at humeri, just over two-thirds as long as broad, about as broad at apex as at base, moderately rounded at side, straight on anterior margin and convex and sinuate basally; disc nearly impunctate, sinuately grooved subbasally. *Scutellum* triangular. *Elytron* three and one-half times as long as prothorax, slightly broadened behind humerus, narrowed apically; disc with ten rows of fairly regular rows of punctures continuing to behind middle, the punctures mostly smaller than interspaces, and also minute punctures in the interspaces. *Ventral surfaces* largely impunctate, with a few vague punctures, and some microreticulation, on abdomen. *Legs* with hind femur very stout, and hind tibia

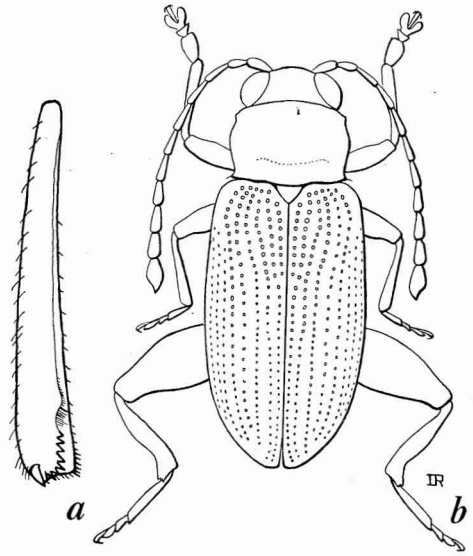


FIG. 41. a, *Crepidodera oceanica* Gressitt, n. sp., dorsolateral view of left hind tibia; b, *Crepidodera elongata* Gressitt, n. sp., type.

feebly arched, flat above, with several slender teeth on each upper margin at apex, besides a short stout tooth on outer side at end; hind tarsus with first segment one-half again as long as remainder combined. Length 3.25 mm.; breadth 1.4 mm.

MALE: Elytron less attenuated apically. Length 2.5 mm.; breadth 1.25 mm.

PARATYPES: Length 2.4–3.2 mm.; breadth 1.1–1.4 mm.

VITI LEVU: Holotype, female (BISHOP 2457), Lami Quarry, near Suva, May 1951, Krauss; allotype, male (BISHOP), same data. Sixty-six paratypes (BISHOP, BM, US, CSIRO, CAS), May 1951, Jan. and Mar. 1955, Krauss.

Differs from *C. dimidiata* Baly in having the scutellum "V"-shaped instead of "U"-shaped, the minute punctures on elytral interspaces more distinct, the hind tibia narrower and straighter, the first hind tarsal segment longer, instead of shorter, than remaining segments combined, and the hind tibia and tarsus pale instead of dark. I am indebted to Mr. Zimmerman for the comparative notes. Bryant (1936: 251) referred to *C. dimidiata* as occur-

ring in Fiji, but probably this species was involved. Some of the specimens are quite brown on the inner portion of the elytral disc. One specimen with longer, entirely blue, elytron probably represents another species.

114. *Crepidodera elongata* Gressitt, n. sp.

Fig. 41b

MALE: Testaceous, slightly more ochraceous on thoracic and abdominal sterna and on side and preapical portion of elytron.

Body narrow; tarsi long. *Head* long; frons short and tuberculate; upper surface smooth, nearly impunctate. *Antenna* three-fourths as long as body; scape nearly one-half again as long as second segment, both stout; third nearly as long as scape, barely longer than fourth; fifth fully as long as scape, longer than each of sixth to tenth; last several thickened; last thicker than scape. *Prothorax* slightly broader than long, subrectangular, slightly sinuate at side; disc minutely punctured, distinctly grooved subbasally. *Scutellum* rounded triangular. *Elytron* long, subparallel, moderately swollen postbasally near suture, regularly and deeply seriate-punctate, the punctures mostly larger than interspaces, both longitudinally and transversely. *Ventral surfaces* sparsely or finely punctured. *Legs* long; fore and middle tarsus each with first segment as long as next two combined, fully as broad as third, and much larger than second; hind tarsus longer than its tibia, with first segment longer than following combined. Length 2.6 mm.; breadth 1.2 mm.

OVALAU: Holotype, male (BISHOP 2458), Andubandga, beating shrubs, at 500 m., Aug. 15, 1938, Zimmerman.

Differs from *C. evansi* Bryant in being entirely pale, in having the pronotum finely punctured, and the elytron heavily punctured and with the punctures extending to apex.

115. *Crepidodera evansi* Bryant

Crepidodera evansi Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 251 (Taveuni; type in Brit. Mus.).

Elongate-oval, nitid, fulvous, with distal antennal segments, suture, and sides of elytron, fuscous. *Head* impunctate; *antenna* with second segment about one-half as long as first; third and fourth subequal, each longer than second; fifth slightly longer than fourth or sixth. *Prothorax* impunctate, feebly rounded at side, anterior angles oblique, transverse sulcus not very deep, terminated at each end by a short longitudinal sulcus. *Elytron* about twice as long as head and prothorax together, feebly punctate-striate, the apical portion impunctate, feebly carinate at side, widest behind middle and rounded at apex. *Hind tibia* with apical third finely toothed. Length 3 mm.

TAVEUNI: Quilai, 250 m.

116. *Crepidodera fijiensis* Csiki

Crepidodera nigra Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 597 (Labasa; Lautoka; type in Brit. Mus.).

Crepidodera fijiensis Csiki, 1939, Coleopt. Cat. 166: 298 (new name for *nigra* Bryant, nec Schilsky).

Entirely black except for basal antennal segments, which are testaceous, and apical segments, tibiae, and tarsi, which are fuscous. *Head* sulcate between eyes, smooth on vertex; *antenna* reaching a little beyond middle of elytron, first two segments rather swollen, third to sixth more slender, last five thicker; *prothorax* smooth, slightly transverse, with a strong basal sulcus which is terminated at each end by a short longitudinal sulcus; *elytron* twice as long as prothorax, with basal half strongly but irregularly punctured, forming irregular striae which behind middle become feeble and at the apex almost smooth. Length 2.25 mm.

VITI LEVU: Mt. Evans; Lautoka; Lami Quarry, near Suva, May 1951, Krauss; 25 specimens.

VANUA LEVU: Lambasa (type locality).

117. *Crepidodera kraussi* Gressitt, n. sp.

MALE: Reddish pitchy; antenna largely testaceous, pitchy on most of scape; pro-

notum metallic greenish black, bordered with pitchy; elytron metallic purplish.

Head carinate medially and grooved on each side between antennal insertions, the grooves continuous with grooves bordering eyes; occiput smooth and impunctate. *Antenna* slender, fully two-thirds as long as body; first two segments not very stout, scape half again as long as second; third to sixth slender, increasing slightly in length; last longest. *Prothorax* transverse, suboblong, slightly convex on lateral and basal margins; disc strongly convex, impunctate, deeply grooved subbasally. *Scutellum* rounded-triangular. *Elytron* long, somewhat gradually narrowed posteriorly, strongly swollen on disc behind base, unevenly punctured: punctures in rows, but postbasal swelling and posterior half of disc practically impunctate, and punctures strongest in depression behind postbasal swelling. *Ventral surfaces* finely and irregularly punctured. *Middle tarsus* with first segment nearly as long as next two combined, and narrower than third; hind tibia shallowly, and somewhat obliquely grooved posteriorly. Length 2.4 mm.; breadth 1.15 mm.

VITI LEVU: Holotype, male (BISHOP 2459), Lami Quarry, near Suva, May 1951, Krauss; allotype, female, and two male paratypes, same data.

Differs from *C. caeruleoviolacea* Bryant, of New Hebrides, in being smaller, in having the prothorax greenish, the elytron less bluish and much less even and less regularly punctured. Named in honour of N. L. H. Krauss, of Honolulu, the collector of a number of species described in this work.

118. *Crepidodera rotunda* Gressitt, n. sp.

FEMALE: Shiny black above, dark pitchy reddish beneath and on hind femur; antenna testaceous; legs reddish.

Head stout, smooth and shiny above. *Antenna* slightly over half as long as body, fairly slender; first two segments moderately thickened, scape a little longer than second; third

about as long as second; fourth and fifth successively longer; sixth a little shorter than fifth and seventh; remainder subequal. *Prothorax* about three-fifths as long as broad, slightly convex in outline of each border; front corner oblique; disc subevenly convex, smooth, minutely punctulate, feebly grooved subbasally. *Scutellum* triangular, finely punctured. *Elytron* broad, even, without a postbasal swelling or depression; moderately, and regularly, punctured on basal three-fourths, the punctures smaller than interspaces, and with minute punctulation on general surface. *Abdomen* finely punctured. Fore and middle tarsus with first three segments subequal; hind tibia with posterior face flat or shallowly depressed for entire length, finely toothed on outer edge. Length 2.25 mm.; breadth 1.3 mm.

VITI LEVU: Holotype, female (BISHOP 2460), Lami Quarry, near Suva, May 1951, Krauss; paratype, female (elytra lacking), same data.

Differs from *C. fijiensis* Csiki (*nigra* Bryant), in being much broader, less than twice as long as broad, with the pronotum very shallowly grooved subbasally, and the elytron even, without a postbasal swelling followed by a depression.

Genus *PSYLLIODES* Latreille

Psylliodes Latreille, 1829, IN Cuvier, Regne Anim. 2 ed., 5: 154; Maulik, 1926, Fauna of India, Chrysom. and Haltic.: 124 (type: *Chrysomela chrysocephala* L.).

Head smooth or carinate medially; antenna 10-segmented; prothorax transverse, feebly rounded at side; elytron broader basally than prothorax, as a rule regularly punctate-striate; scutellar rows of punctures generally long; hind tibia broadened distally and channelled above, the channel bordered with spinules, with tarsal insertion considerably before apex; first hind tarsal segment long and slender; claws simple.

KEY TO FIJIAN SPECIES OF *Psylliodes*

1. Dorsum purplish black; antenna fulvous; elytron irregularly punctured; apical process of hind tibia tridentate. . . **simmondsi**

Dorsum greenish; antenna pitchy with basal segments testaceous; elytron striate-punctate; apical process of hind tibia bidentate. **vitiensis**

119. *Psylliodes simmondsi* Bryant

Psylliodes simmondsi Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 252 (Tamavua; type in Brit. Mus.).

Purplish black above; antenna, legs and venter fulvous. *Head* with basal half black, impunctate; *antenna* with five terminal segments tinged with fuscous; *prothorax* feebly and not closely punctured; *scutellum* impunctate; *elytron* rounded apically, irregularly punctured, the punctures stronger and closer than on pronotum; *hind femur* tinged with fuscous; apical process of hind tibia short and tridentate. Length 2.5 mm.

VITI LEVU: Tamavua (type locality).

120. *Psylliodes vitiensis* Bryant

Psylliodes vitiensis Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 597 (Cuvu, Lautoka; type in Brit. Mus.).

Greenish above; antenna pitchy with basal segments testaceous; venter piceous; legs testaceous. *Head* finely punctured; *antenna* with distal segments gradually increasing in length to apex; *prothorax* transverse, broadest at base, obtuse at anterior angle, evenly punctured, the punctures stronger than on head; *elytron* feebly striate, but strongly punctate, the punctures becoming feebler towards apex; *hind tibia* with apical process long, but shorter than first segment of hind tarsus, its apex bidentate; abdominal sternites finely punctured. Length 3 mm.

VITI LEVU: Thuvu; Lautoka.

Genus ALEMA Sharp

Alema Sharp, 1876, Ent. Monthly Mag. 13: 98 (type: *A. paradoxa* Sharp; New Zealand); Broun, 1880, Man. New Zealand Col. 1: 619.

KEY TO FIJIAN SPECIES OF *Alema*

1. Black, with second to sixth antennal segments fulvous; elytron strongly punctate-striate and costate. **leveri**

Black, with antenna, clypeus, palpi and legs fulvous; elytron finely punctate-striate, with interstices slightly elevated. **nigra**

121. *Alema leveri* Bryant

Alema leveri Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 428 (Taveuni; type in Brit. Mus.).

Shiny black, second to sixth antennal segments fulvous. *Head* impunctate; eye prominent; *antenna* slender, reaching middle of elytron; scape equal to next two combined; second shorter than third. *Prothorax* subquadrate, sides feebly margined and contracted towards base; a transverse depression near base containing a few strong punctures; scutellum impunctate. *Elytron* tapering apically, strongly punctate-striate and costate. Length 2 mm.

TAVEUNI: Crater Lake (type locality).

122. *Alema nigra* Bryant

Alema nigra Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 252 (Lautoka Mts.; type in Brit. Mus.).

Black, with antenna, clypeus, palpi and legs fulvous. *Head* with basal portion shiny and impunctate, interocular space elevated; *antenna* with pedicel rather shorter than scape, remainder elongate and slender, subequal. *Prothorax* subquadrate, feebly punctured, slightly depressed near base; scutellum impunctate. *Elytron* finely punctate-striate with

interstices slightly elevated, tapering sharply to apex; exposing extremity of pygidium. *Metasternum* impunctate; first abdominal sternite about as long as next three together, last feebly punctured. Length 2 mm.

VITI LEVU: Lautoka Mts. (type locality). One, Nandarivatu, 1100 m., Sept. 1938, Zimmerman, is questionably referred to this species.

Genus MANOBIA Jacoby

Manobia Jacoby, 1885, Mus. Civ. Genova, Ann. 22: 73 (type: *Manobia nigripennis* Jac.; Sumatra).

Ovate-subquadrate, convex; antenna nearly as long as body; terminal segments slightly thickened; prothorax with a depression near basal margin; scutellum broadly ovate; elytron deeply depressed behind the raised base, coarsely punctate-striate; hind tibia with small apical spine; first hind tarsal segment equal to next two united; claws appendiculate.

KEY TO FIJIAN SPECIES OF *Manobia*

- 1. Dorsum reddish brown to blackish; scape less than twice as long as second antennal segment. 2
 - Dorsum dark metallic green; scape twice as long as second segment. **metallica**
- 2(1). Basal portion of pronotum distinctly and sinuately grooved, or feebly depressed and strongly punctured. 3
 - Basal portion of pronotum with a distinct, smooth, and nearly impunctate, gradual depression. **levicollis**
- 3(2). Dorsum pitchy black; base of pronotum distinctly and sinuately grooved; second antennal segment distinctly larger than third. **producticollis**
 - Dorsum reddish brown; base of pronotum feebly depressed; second antennal segment hardly larger than third. **obtusicollis**

123. *Manobia metallica* Bryant

Manobia metallica Bryant, 1945, Ann. and Mag. Nat. Hist. Ser. 11, 12: 427 (Tomaniivi; type in Brit. Mus.).

Dark metallic green; antenna and legs flavous. *Head* shiny, impunctate; *antenna* reaching middle of elytron, scape twice as long as second segment; *prothorax* shiny, finely punctured, more strongly so basally; *elytron* with interpunctural rows near side slightly costate. Length 2 mm.

VITI LEVU: Mt. Victoria (Tomaniivi): 900 m.; type locality.

124. *Manobia levicollis* Gressitt, n. sp.

Fig. 42

Dark reddish brown; tarsi testaceous; antenna pale brown with third to fifth segments testaceous and scape dark brown.

Head carinate medially on frons, finely grooved medially just behind antennal insertions; smooth and impunctate on occiput. *Antenna* more than one-half as long as body, distinctly thickened in last five segments; scape a little longer than second segment; third smaller, subequal to fourth; fifth longer, subequal to sixth; seventh and following each longer, and thicker, than sixth. *Prothorax* slightly broader than long, much longer in middle than at side, anterior and posterior angles oblique; basal margin sinuate, strongly convex at middle; disc smooth and shiny, very finely and sparsely punctured, gradually and broadly depressed near base. *Scutellum* rounded-truncate apically. *Elytron* swollen near base, depressed behind swelling, seriate-punctate, the punctures larger in depression and becoming quite fine in posterior quarter. *Abdomen* finely punctured. *Hind femur* small; hind tibia slender, feebly grooved behind; first hind tarsal segment shorter than remaining combined. Length 1.65 mm.; breadth 0.8 mm.

VITI LEVU: Holotype, male (BISHOP 2461), Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman.

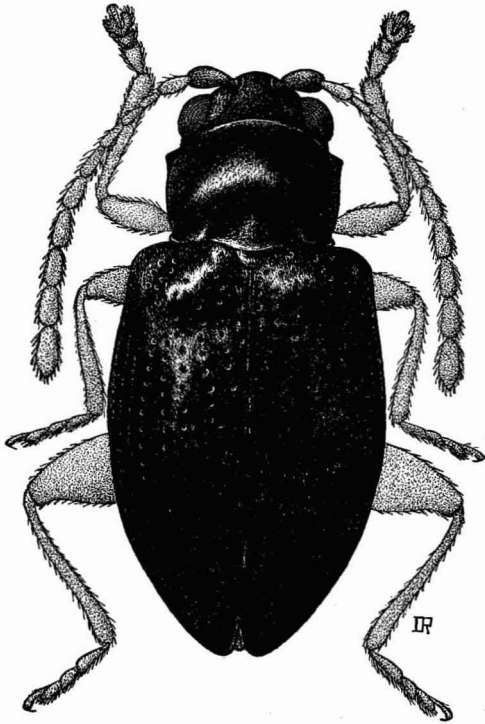


FIG. 42. *Manobia levicollis* Gressitt, n. sp., type.

Differs from *M. metallica* Bryant in being smaller, dark reddish instead of metallic green, with the scape much less than twice as long as second antennal segment, and the pronotum finely punctured basally.

125. *Manobia obtusicollis* Gressitt, n. sp.

Reddish brown, slightly pitchy on sides of metasternum and abdomen; antenna and legs pale ochraceous.

Head with frons fairly large, smooth; occiput impunctate. *Antenna* not quite reaching to middle of elytron; scape one-half again as long as second segment; third nearly as long as scape, subequal in length to following, which gradually increase in thickness; last longer. *Prothorax* three-fourths as long as broad, slightly broadened from base to apex, feebly convex at side, distinctly obtuse basally; disc subevenly convex, finely punctured, slightly depressed and somewhat more

strongly punctured near base. *Scutellum* small, nearly hidden by pronotum. *Elytron* broadest anterior to middle, considerably attenuated apically; disc strongly swollen near base, depressed behind swelling, deeply punctured in fairly regular rows, the punctures stronger in postbasal depression and becoming very fine apically, the interspaces distinctly raised, particularly at side. *Ventral surfaces* slightly punctured. *Hind femur* not very stout; first hind tarsal segment nearly as long as remaining combined. Length 2.3 mm.; breadth 1.15 mm.

VITI LEVU: Holotype (BISHOP 2462), Nandarivatu, 1100 m., Sept. 6, 1938, Zimmerman. Two additional specimens, one of nearly same data as type, and the other from Tholo-i-suva, June 28, 1924, Bryan, are only tentatively associated with this species.

Differs from *M. costata* Bryant, in being reddish instead of partly greenish, in having the antenna paler, and the pronotum less strongly punctured.

126. *Manobia producticollis* Gressitt, n. sp.

MALE: Dark pitchy black above, more reddish pitchy beneath and on appendages; second to fourth antennal segments more reddish than remainder.

Head fairly long, produced at mouth parts, smooth on occiput. *Antenna* barely more than one-half as long as body; first two, and last five, segments thicker than others; scape a little longer than second segment; third smaller than second; fourth a little longer than third, subequal to fifth and following in length. *Prothorax* two-thirds as long as broad, broadened from base to apex, with side fairly straight; basal margin sinuate, strongly rounded and produced at middle; disc strongly convex, finely punctured, with a sinuate, more strongly punctured, subbasal depression. *Scutellum* small, subrounded behind. *Elytron* broadest anterior to middle; disc with a distinct postbasal swelling followed by a depression, distinctly punctured throughout in regular rows, the punctures slightly larger in postbasal depression and slightly finer near

apex. *Ventral surfaces* finely punctured. *Hind femur* moderately stout; first hind tarsal segment about as long as remaining combined. Length 1.7 mm.; breadth 0.95 mm.

VITI LEVU: Holotype, male (BISHOP 2463), Lami Quarry, near Suva, May 1951, Krauss; allotype, female, same data; 13 paratopotypes, same data; one paratype, Navai, Mar. 1951, Krauss.

Differs from *M. costata* Bryant, of New Hebrides, in being darker, with the elytra blackish and not greenish, and the pronotum more evenly punctured. This species may possibly belong to *Alema*.

Genus NESOHALTICA Maulik

Nesobaltica Maulik, 1929, *Insects of Samoa* 4(3): 201 (type: *N. nigra* Maulik; Samoa).

Rounded oblong; head with vertex delimited from interocular space by a deep transverse groove; raised areas in interocular space weakly developed; antenna 11-segmented, with two basal and five apical segments thickened; eye entire; prothorax transverse, rounded at side, each corner with a seta; elytron irregularly punctate; fore coxal cavity open, prosternal process broad, concave, rough; hind tibia with upper surface flat, with short spine near apex beneath tarsus; tarsus half as long as tibia, first segment shorter than rest combined; claws divaricate.

KEY TO FIJIAN SPECIES OF *Nesobaltica*

1. Pronotum distinctly punctured, smooth and not rugulose..... 2
 Pronotum uneven, shallowly rugulose, very finely and indistinctly punctured; antenna pale..... *lauensis*
2. Shiny deep brown with a slight metallic tinge; pronotum finely and in part somewhat closely punctured; elytron irregularly punctured, more densely so than pronotum..... *brunnea*
 Shiny black; pronotum finely and sparingly punctured; elytron strongly and somewhat closely punctured.... *vitiensis*

127. *Nesobaltica brunnea* Bryant, n. sp.

Fig. 43

Oblong; shining deep brown with a slight metallic tinge; antenna, legs, and underside paler; prothorax and elytron closely punctured.

Head deep brown, a transverse impression between the eyes, the basal half impunctate and shining; antenna fulvous, extending to the middle of elytron; first segment the longest and dilated at the apex; second much shorter and slightly rounded; remainder more elongate and each about equal, the five terminal slightly thickened. *Prothorax* deep brown with a metallic tinge; transverse, broadest at the base, the sides slightly contracted in front, the anterior angles oblique, closely and finely punctured. *Elytron* deep brown with a metallic tinge, slightly broader than the base of the prothorax, oblong, rounded at the apex, closely and irregularly punctured. *Legs* and underside paler and more fulvous, the posterior femora slightly darker. Length 2 mm.

VITI LEVU: Holotype (BISHOP 2464), Nandarivatu, 850 m., Sept. 8, 1938, beating shrubbery, Zimmerman. One of same data, questionably this species; four paratypes, Lami Quarry, near Suva, May 1951, Krauss, and a fifth specimen from Lami tentatively referred here.

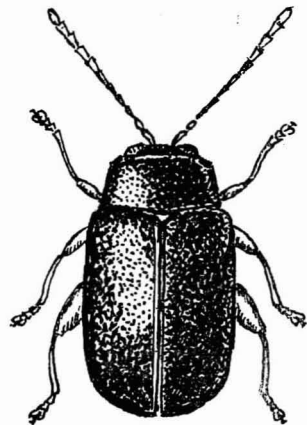


FIG. 43. *Nesobaltica brunnea* Bryant, n. sp., type.

Allied to *N. vitiensis* Bry., and *N. atra* Bry. (New Hebrides), but differs in its color and punctuation, in which *brunnea* is intermediate between these two.

128. *Nesohaltica lauensis* Gressitt, n. sp.

Fig. 44

Ochraceous brown, paler on fore and hind margins of pronotum; antenna testaceous; tibiae and tarsi pale ochraceous.

Head triangular and flat on frons, transversely grooved between upper eye lobes, convex and minutely punctured on occiput. *Antenna* one-half as long as body, first two segments about as stout as last few, third to sixth more slender; scape nearly twice as long as second; third to sixth each about as long as second. *Prothorax* two-thirds as long as broad, narrowed from base to apex, nearly straight at side with anterior angle slightly prominent; basal margin evenly convex; anterior border slightly convex; disc uneven, almost entirely roughened or shallowly rugulose, with minute, indistinct punctures. *Scutellum* triangular, smooth and concave. *Elytron* broadest behind middle, broadly rounded apically, irregularly, and rather closely punctured throughout, the punctures mostly as large as interspaces. *Ventral surfaces* in part distinctly punctured. First hind tarsal segment short. Length 1.6 mm.; breadth 0.95 mm.

LAU: Holotype (BISHOP 2465), Namuka-ilau I., southern Lakemba I. (southcentral Lau Group), Aug. 12, 1924, E. H. Bryan, Jr.

Differs from *N. brunnea* and *vitiensis* Bryant in having the pronotum rough and somewhat rugulose, instead of smooth and distinctly punctured, and the coloration paler. Differs from *N. nigra* Maulik in the same characters, and in having the first two antennal segments much thicker than those immediately following.

129. *Nesohaltica vitiensis* Bryant

Nesohaltica vitiensis Bryant, 1938, Roy. Ent. Soc. London, Proc. B 7(11): 251 (Vanua Levu; Taveuni; type in Brit. Mus.).

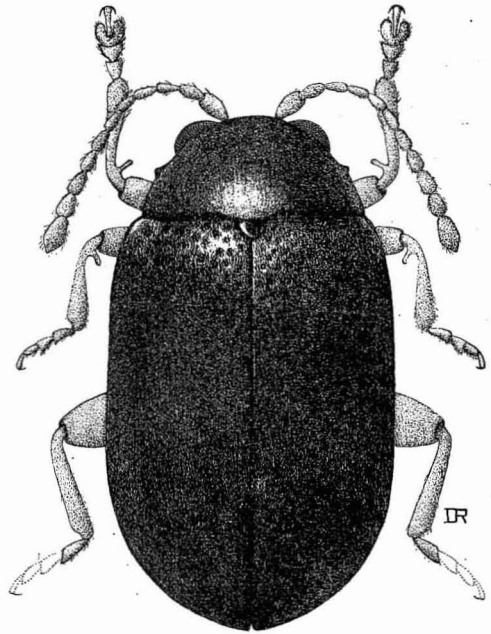


FIG. 44. *Nesohaltica lauensis* Gressitt, n. sp., type.

Shiny black; antenna fulvous with four apical segments fuscous; legs and underside pitchy brown. Head with basal half shiny black, impunctate; frons pitchy brown, a transverse impressed line between eyes; antenna reaching almost to middle of elytron; scape longer and more swollen than second, remainder more slender and subequal. Prothorax shiny black, finely and sparingly punctured, sides slightly rounded and margined, anterior angles obliquely truncate; scutellum shiny black, impunctate, triangular. Elytra shiny black, strongly and somewhat closely punctured, rounded at apex; side margin with a line of evenly spaced punctures which are much stronger than the other elytral punctures. Legs and underside pitchy brown. Length 2 mm.

VANUA LEVU: Lambasa (type locality).

TAVEUNI: Taken on guava.

HOST: *Psidium guajava* Linn.

Genus FEBRA Clark

Febra Clark, 1864, Jour. Ent. 2: 261 (type *F. venusta* Clark; Fiji).

Head vertical in front; vertex slightly grooved medially; eye large; antenna long, with scape long, thickened distally; prothorax transverse, rounded at side; elytron fairly broad, heavily punctured; hind tibia grooved above; first hind tarsal segment shorter than following combined, fairly stout.

KEY TO FIJIAN SPECIES OF *Febra*

1. Pronotum very coarsely punctured, hardly more than ten punctures in an approximate line medially from apex to base; elytron heavily punctured. 2
 Pronotum not very coarsely punctured, much more than ten punctures along median line; elytron generally sparsely punctured. 3
- 2(1). Elytral punctures very close, only partly in regular rows; green above. *varioloidea*
 Elytral punctures not extremely close, in separate distinct rows; reddish above *rubra*
- 3(1). Third antennal segment much longer than second; elytron not striped; length over 5 mm. 4
 Third antennal segment barely longer than second; elytron striped; length under 4 mm. 5
- 4(3). Pronotum distinctly punctured; elytron black, very finely punctured. *insularis*
 Pronotum not distinctly punctured; elytron reddish to partly or entirely metallic blue, subcoarsely punctured. *venusta*
- 5(3). Pronotum striped medially, minutely punctured; suture not distinctly black basally; elytron not almost entirely black in posterior half. *n. nigroornata*
 Pronotum not striped medially, impunctate; suture distinctly black basally; elytron almost entirely black in posterior half. *nigroornata vanuana*

130. *Febra venusta* Clark

Febra venusta Clark, 1864, Jour. Ent. 2: 262, pl. 12, fig. 5 (Fiji; type in Brit. Mus.).

Febra semiaurantiaca Fairmaire, 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 490 (Ovalau); n. syn.

MALE: Ochraceous, slightly darker on antenna, posterior two-thirds of elytron and hind leg. *Head* and *pronotum* practically impunctate, latter with an irregular transverse row of spaced punctures in basal depression; scape shorter than third segment; *elytron* with punctures distinct but well spaced, in subregular rows. Length 5.5 mm.

FEMALE: Scape longer than third antennal segment; posterior two-thirds of elytron metallic bluish. Length 6 mm.

Maulik indicated the common identity of the above two names by his identification labels; *venusta* being the male and *semiaurantiaca* being the female.

VITI LEVU: Naivithula, Tailevu, Sept. 1937, Valentine, both sexes; Tholo-i-suva, Sept. 1950, Mar. 1951, Krauss.

OVALAU: Type locality of *semiaurantiaca*.

VANUA LEVU: Three, Nakawanga, Oct. 8, 1955, Gressitt. The males are colored similarly to those from Viti Levu, but the female has the elytron entirely purplish blue. Possibly a weak subspecies is involved.

HOST: *Nephrolepis* sp. (fern); the larva is a leaf-miner.

131. *Febra insularis* Bryant

Fig. 45a, b

Febra insularis Bryant, 1925, Ann. and Mag. Nat. Hist. Ser. 9, 15: 596 (Cuvu; type in Brit. Mus.).

Fulvous; elytra metallic bronze-green with fulvous margin. *Head* vertical and strongly produced in front; frons glabrous; occiput strongly punctured; *antennae* closed inserted; scape equal to third segment; second one-third as long; *prothorax* strongly and irregularly punctured; side with narrow margin with row of six deep punctures; hind margin

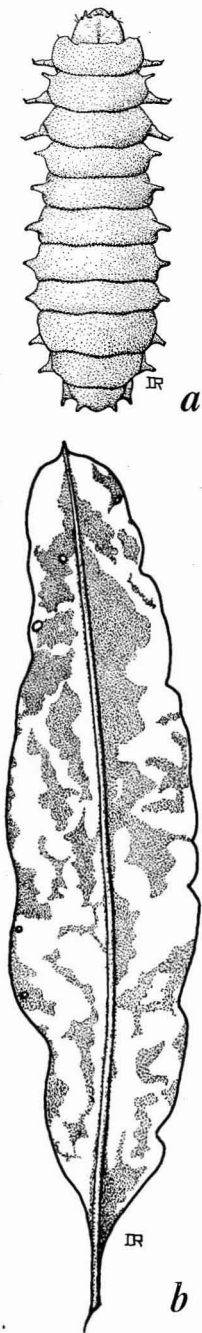


FIG. 45. *Febra insularis* Bryant: *a*, Larva, dorsal view; *b*, larval leaf mine in leaf of *Acrostichum* fern.

strongly emarginate; *elytron* four times as long as prothorax, finely punctate-striate, rounded to apex; *venter* glabrous; tibiae and tarsi briefly pubescent, tibial bases darkened. Length 6 mm.

EGG: White, spherical. Length 0.066 mm. Laid in a slit chewed in side of midrib of fern.

MATURE LARVA: Creamy white; head capsule reddish ochraceous, darker near anterior border and along median line, paler on basal antennal segment and along frontoclypeal suture; pronotum testaceous on central portion except along median line; a dirty broadish median dorsal stripe extending from mesonotum to last abdominal segment, appearing to consist of minute gray transverse sclerotizations on surface. Body about twice as wide as deep. Head flat, trapeziform, narrowed anteriorly, fairly smooth, finely vermiculose on central portion; two short bristles on lateral border behind ocellus-like pale node behind antenna; another bristle below this node. Pronotum rather even and flat, slightly wrinkled on sclerotized portion of disc. Dorsum of remainder of body finely granulate; ventral surfaces similar to dorsal, but median gray stripe lacking and a few well pigmented lines of sclerotization on prosternum and legs. Mesothorax and nine abdominal segments each bearing slightly pigmented spiracle at end of a white fleshy papilla-like mid-lateral projection on each side. Length 7.5 mm.

VITI LEVU: Thuvu (type locality). Between Nausori and Korovou, Sept. 1955, O'Connor, larvae and adults.

HOST: *Acrostichum aureum* (fern); the larva is a leaf-miner (see Fig. 45).

132. *Febra varioloidea* Fairmaire

Febra varioloidea Fairm., 1882, Soc. Ent. de France, Ann. Ser. 6, 1: 490 (Ovalau; type in Paris).

Reddish pitchy, tinged with metallic green on central portion of dorsum, appearing green to naked eye; pitchy to black on elytral declivities and ventral surfaces; appendages partly

reddish. Dorsum very deeply and coarsely punctured on metallic areas, more sparsely so on darker borders; elytral punctures in part tending to form sublongitudinal rows. Length 4 mm.

OVALAU: (type locality); Wainiloka, July 11, 1938, C. M. Cooke, Jr.

133. *Febra rubra* Gressitt, n. sp.

Fig. 46

FEMALE: Reddish ochraceous with a very slight purplish metallic tint on basal antennal segments, pronotum, and base, middle and lateral declivity of elytron.

Head concave in lateral outline anteriorly, with vertex projecting; swollen on each side and grooved medially between eyes, a lesser swelling on each side of occiput. Antenna slightly longer than body, slender; scape nearly as long as next two segments combined; third much longer than second; third and fourth subequal, following very slightly shorter. Prothorax nearly twice as broad as long, feebly convex on disc, but declivitous at side to margin, coarsely and closely punctured. Scutellum subtriangular, rounded behind. Elytron more than twice as long as head and prothorax together, coarsely punctured in 11 fairly regular rows, the punctures close longitudinally, but with distinct raised longitudinal interspaces. Ventral surfaces feebly punctured. First hind tarsal segment hardly as long as next two combined. Length 3.5 mm.

VITI LEVU: Holotype, female (BISHOP 2466), Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman. Two paratypes, Tholo-i-suva, Mar. and Apr. 1951, Krauss.

Differs from *F. varioloidea* Fairmaire in being reddish ochraceous instead of green above, in having the pronotum less deeply, though almost as coarsely, punctured, and the elytron punctured in distinct longitudinal rows with broad low ridges between the rows instead of densely punctured throughout. The paratypes are tinged with greenish above, and are partly green at sides of pronotum and elytron.

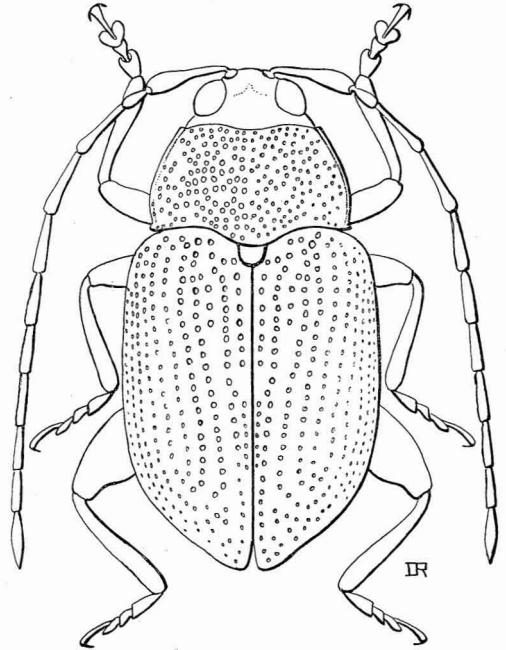


FIG. 46. *Febra rubra* Gressitt, n. sp., type.

134. *Febra nigroornata nigroornata*

Bryant, n. sp.

Fig. 47

Oval, convex; flavous, side and median portion of prothorax black, elytron flavous, with a broad longitudinal black marking, broadening from base to apex, not touching side margin.

Head flavous, impunctate, a longitudinal median narrow impression from between antennal insertions to between eyes. Antenna long and slender, extending beyond middle of elytron, first segment very long, about equal to second and third together, third slightly longer than fourth, fifth to apical segments all about equal. Prothorax transverse, widest at base, contracted in front, impunctate, flavous, sides and base broadly black, and a longitudinal narrow black line, not touching anterior margin. Scutellum black, triangular, impunctate. Elytron with side rounded, widest just behind the middle, flavous, with the side broadly black, not touching side margin or suture, but broadening from base to apex, punctate-striate. Legs flavous; pos-

terior femora black. Underside flavous. Length 3 mm.

VITI LEVU: Holotype (BM, NH), Lautoka, Sept. 13, 1948, R. A. Lever; 2 paratypes, Nandarivatu, 1100 m., Sept. 10, 1938, Zimmerman. Eleven paratypes, Tholo-i-suva, Sept. 1950, Apr. 1951, and Lami Quarry, near Suva, Mar. 1951 and Jan. 1955, Krauss.

Allied to *Febra ovata* Bry., from New Hebrides, but smaller, with pattern different, more nitid, and not so strongly punctured.

135. *Febra nigroornata vanuana*

Gressitt, n. subsp.

FEMALE: Testaceous, marked with areas of pitchy black: eye black; occiput black behind eye; pronotum black on outer half of disc, a little more broadly so at apex and base; elytron black except for a broad oblique hyaline strip from just behind middle of base to second quarter of suture, outer margin on basal two-fifths extending inward not quite to cen-

ter, and external margin narrowly before apex, leaving extreme base, short sutural stripe, broad sinuous humeral stripe, and most of apical half, black; posterior half of hind tibia black.

Head smooth, impunctate, subevenly convex between eyes. Antenna reaching middle of elytron; scape long and slightly arched, slightly longer than next two segments combined; third barely longer than second, but more slender; fourth longer than third; sixth and following shorter. Prothorax smooth and shiny, almost impunctate. Elytron distinctly punctured in regular rows, most of punctures on basal half slightly smaller than spaces between them, those on posterior half much smaller. Length 2.8 mm.

VANUA LEVU: Holotype, female (BISHOP 2467), near Nakawanga on trail from Nakawanga to Wailevu, 50 m., Oct. 9, 1955, Gressitt; and paratype, female, same data.

Differs from the typical form from Viti Levu in having the pronotum nearly impunctate, not striped medially, and pale on middle portion of basal margin, the elytron largely black in posterior half, with sutural stripe, more sinuous humeral stripe, and basal margin distinctly black.

Subfamily HISPINAE

Genus PROMECOTHECA Blanchard

Promecotheca Bl., 1853, Voyage Pôle Sud Zool. 4: 312 (type: *P. caeruleipennis* Bl.; Tonga).

Head short, about as broad as prothorax; antenna slender, two-thirds as long as body, the segments partly dissimilar in length; prothorax longer than broad, broadened in middle, constricted near base; elytron long, regularly striate-punctate; legs short and stout.

KEY TO FIJIAN SPECIES OF *Promecotheca*

1. Prothorax subparallel-sided in anterior third; pronotal disc more or less impunctate; legs entirely pale; antenna pale basally *caeruleipennis*

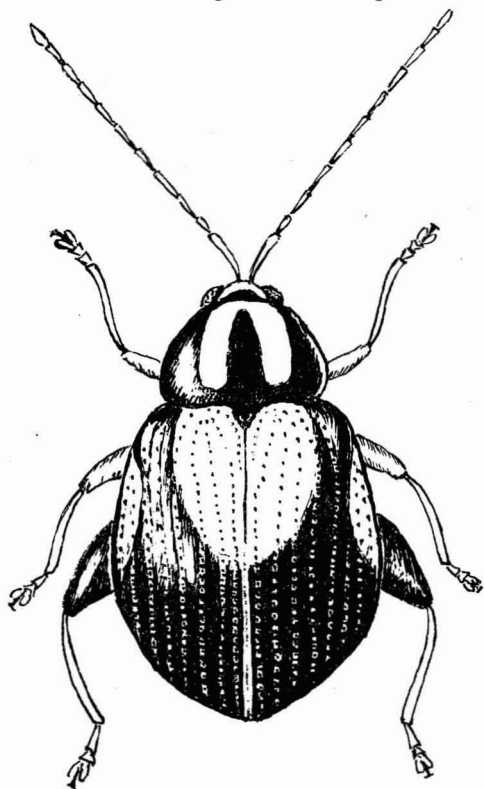


FIG. 47. *Febra n. nigroornata* Bryant, n. sp., type.

Prothorax distinctly narrowed in anterior third; pronotal disc finely punctured; tibiae, tarsi, and hind femur blue; antenna bluish basally. **bicolor**

136. *Promecotheca caeruleipennis*

Blanchard

Promecotheca caeruleipennis Bl., 1853, Voyage Pôles Sud Zool. 4: 312 (Tonga: Vavao).

Promecotheca Reichii Baly, 1869, Ent. Soc. London, Trans. 1869: 374 (Vavao); new syn.

Promecotheca reichei, Weise, 1911, Coleopt. Cat. 35: 54 (Tonga, Viti); Veitch and Greenwood, 1921, Linn. Soc. N. S. Wales, Proc. 46: 511; Maulik, 1929, Insects of Samoa 4(3): 210, figs. 17, 18 (Samoa); Taylor, 1937, The biological control of an insect of Fiji, Imp. Inst. Ent. pp. 1-239, figs. 1-17, maps 1-2, pls. 1-23; Greenwood, 1940, Linn. Soc. N. S. Wales, Proc. 65: 215; O'Connor, 1949, Agr. Jour. [Fiji] 20(2): 50 (Tonga).

Promecotheca lindingeri Aulmann, 1914, Ent. Rundschau. 31: 27 (Samoa).

Promecotheca caeruleipennis ab. *reichii*, Weise, 1922, Philippine Jour. Sci. 21: 70.

Testaceous; posterior two-thirds of elytron metallic blue-green; abdomen purplish; antenna pitchy distally. *Head* smooth; *prothorax* very slightly broadened in middle, constricted posteriorly, its disc fairly smooth, sometimes with vague and sparse minute punctures; *elytron* punctured in even, regular rows. Length 7-8 mm.; breadth 2-2.6 mm.

This species was stated by Taylor to occur on practically every island of Fiji, and to fluctuate in population, becoming a pest particularly in the Lau Islands. It has been very well controlled by the parasite *Pleurotropis parvulus*.

Fiji, Tonga, Samoa.

HOSTS: *Cocos nucifera* L.; *Pritchardia* (*Eupritchardia*) *pacifica* Seem; *Livistona* sp.

137. *Promecotheca bicolor* Maulik

Promecotheca bicolor Maulik, 1927, Ann. and

Mag. Nat. Hist. Ser. 9, 20: 107, fig. 2 (Viti Levu; type in Brit. Mus.).

Reddish testaceous; antenna bluish; posterior two-thirds of elytron blue-green; abdomen blackish green; tibiae, tarsi, and hind femur greenish. *Head* smooth; antenna slender; *prothorax* distinctly broadened in middle, narrowed apically, strongly constricted near base, its disc finely punctured; *elytron* punctured in regular rows. Length 7-8.5 mm.; breadth 2.5-3 mm.

VITI LEVU: Near Suva (type locality). Lami, Mar. 1951, Tholo-i-suva, Jan. 1955, Krauss; two specimens.

VANUA LEVU: Wainunu, in *Flagellaria*, Sept. 1934, R. W. Paine (Dept. Agr. collect., Koronivia).

HOST: *Flagellaria* sp.

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