

CURCULIONIDAE OF GUAM

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INTRODUCTION

SCOPE

This report, based on collections made by several entomologists on the island of Guam, includes all of the Curculionidae known to inhabit the island. These number 49 species, included in 34 genera, of which 33 species and 8 genera are described as new. One new cossenid is described from the Marquesas, and several new combinations and new generic and specific synonyms are made. A number of described species are for the first time recorded from Guam, and the known geographical distribution of several genera is greatly enlarged. Two species are removed from the list, one because of an incorrect citation of locality, and one because of a misidentification. I have examined types of the previously described endemic species and redescribed them.

The holotypes and allotypes of the new species are in the type collection of Bernice P. Bishop Museum, unless otherwise indicated.

The measurements of the lengths of all specimens exclude the head and rostrum; all measurements were made with the aid of an eyepiece micrometer.

PREVIOUS WORK

The first authentic collection of Guam weevils was reported upon by Boheman in "Eugenies Resa" in 1859. In that paper were described *Trigonops subfasciata* (Boheman), *Trigonops impura* (Boheman), and *Menectetorus setulosus* (Boheman). Boheman (in Schoenherr's Gen. Spec. Curc., 1843) described *Trigonops insularis* ("Celeuthetes"), but that insect is not Guaman. From 1859 until this writing there have been no data recorded concerning the endemic Curculionidae of Guam. There have been only some scattered notes of economic character, the most important of which are Fullaway's report on his research in Guam in the report of the Guam Agricultural Experiment Station for 1911, Swezey's "A Preliminary Report on an Entomological Survey of Guam" (The Hawaiian Planters' Record, 1936), and especially Swezey's "Entomological Report of Guam" (The Guam Recorder, January and February 1937), and his "Survey of the Insect Pests of Cultivated Plants in Guam" (The Hawaiian Planters' Record 44 (3), 1940). The weevils noted in these reports are widespread pests of various crops.

The first extensive collection of Guam weevils was made by Fullaway in 1911. Part of this material is in Bishop Museum; the remainder, which is in

the United States National Museum, I have also had before me. Much of it was named, but most of the identifications were erroneous. In 1936 O. H. Swezey, of the Hawaiian Sugar Planters' Experiment Station, and R. L. Usinger, then of Bishop Museum, made the most extensive and careful survey of the Guam insect fauna yet made. E. H. Bryan, Jr., of Bishop Museum, added a small collection to the material in 1936. R. G. Oakley, who was stationed at Guam by the United States Department of Agriculture, assembled a valuable collection ranking second in comprehensiveness to that made by Swezey and Usinger. Most of these collectors captured species not taken by any of the other workers.

I believe that these assembled materials form a sound basis as a representative collection of the Curculionidae of Guam, although there are undoubtedly other species to be found on the island.

As far as I have been able to ascertain, the only Curculionidae heretofore accurately recorded from Guam are the following: *Trigonops subfasciata* (Boheman), *T. impura* (Boheman), *Cylas formicarius* (Fabricius), *Menecetorūs setulosus* (Boheman), *Euscepes postfasciatus* (Fairmaire), *Rhabdocnemis obscura* (Boisduval), *Cosmopolites sordidus* (Germar), *Polytes melleurborgi* (Boheman), *Calandra oryzae* (Linnaeus).

The other records listed herein are new.

SPECIES OF ECONOMIC IMPORTANCE

In the Otiorhynchinae, any or all of the eight species of *Trigonops* might at times be of economic importance as defoliators of various plants (pl. 7,B). Their larvae are, I assume, subterranean in habit and might cause damage to the roots of various garden plants. However, their life histories have not been studied and evidently nothing is known of the food ranges or habits of the larvae. *Viticis guamae*, of the Brachyderinae, belongs to a group of defoliators, but this species is a rare forest insect and is probably not important to agriculture. *Cylas formicarius* (Fabricius) is a tropicopolitan pest of the sweet potato. The two new species of Anthonominae, *Usingerius maculatus* and *Amblycnenus dentipes*, are probably to be looked upon as forest insects of no agricultural importance.

In the Barinae, *Athesapeuta ulvae* is a sedge borer related to the Philippine *Athesapeuta cyperi* that has been used in Hawaii and Fiji in the control of the sedge called nutgrass (*Cyperus rotundus*) in sugar-cane fields.

In the Ithyporinae, the peculiar *Swezeyella muscosa* can be taken as an interesting component of the endemic fauna of the forests and will probably remain as such.

Among the Cryptorhynchinae, *Euscepes postfasciatus* is the only species of true economic importance. It is another tropicopolitan pest of sweet potatoes. The other 13 species of Cryptorhynchinae are mostly subcortical species of the

forests, most of which will probably never cause damage of an economic sort. Some of them might damage rustic construction made from unpeeled logs or limbs of forest or introduced trees or shrubs.

None of the 16 species of subcortical Cossoninae can be considered of importance to agriculture. They feed on dead tissues. On the other hand, most all of the species of Rhynchophorinae are of distinct economic importance. *Rhabdocnemis obscurus* is the well-known and widely spread borer of sugar cane. *Cosmopolites sordidus* is a serious tropicopolitan pest of bananas. *Polytes mellerborgi* has a similar distribution and also feeds on bananas. The cosmopolitan *Calandra oryzae* damages rice and corn. *Diocalandra frumenti* is a widespread coconut insect.

All of the weevils of known economic importance in Guam are widespread, introduced species. None of the endemic species is to be feared, unless there be local outbreaks of *Trigonops* as defoliators of minor importance.

ANALYSIS AND RELATIONSHIPS OF THE FAUNA

In this section I shall omit from the discussion all of the introduced species, and consider only those thought to be endemic products (36 species, roughly 73 percent, are endemic; 13, roughly 26 percent, are introduced), because those species introduced by man have no bearing on the natural relationships of the fauna.

A comparative analysis of the Guam curculionid fauna would be less difficult and the results would be more conclusive, if we had a comprehensive knowledge of the faunas of that vast insular area lying between the Solomons and the Malay Peninsula, including all of the islands surrounding Guam and their neighbors to the west, south, and east. It is probable that the majority of the new species described herein are truly endemic products of the forest of Guam, but there are good reasons for assuming that all of the eight new genera described herein will be found elsewhere.

I believe that the Curculionidae of Guam originated from ancestral stocks derived from that great arc of islands sweeping from the Solomons through New Guinea and including the Philippines. There is great similarity between the Guam fauna and that of Fiji, Samoa, and southeastern Polynesia. Several of the genera which signalize the faunas of the central and eastern Pacific are here listed for the first time as inhabiting the far western Pacific. Some of the new genera are closely allied to central and southeastern Pacific genera. There are genera that lead to New Zealand, and one genus that points toward distant Seychelles. From the list of species alone, it appears that the nearby Philippines, to which one would expect a great affinity, seem to have had little influence on the fauna. But we know comparatively little about the weevil fauna of the Philippines. Actually, the fauna of Guam is probably as closely allied to that of the Philippines as to that of the islands to the south and southeast.

Present evidence shows that endemic species have developed in seven subfamilies on Guam. When the faunas of the Philippines or New Guinea are considered, we find that there are many more subfamilies developed in those regions, and that, comparatively speaking, Guam has a rather undiversified weevil fauna. The Guam fauna, qualitatively and quantitatively, is more like the more isolated central Pacific islands in its diversity and development than it is like the "continental" islands. The number of subfamilies in which there have been endemic species developed in several of the central Pacific archipelagos are as follows: Hawaii, 3; Marquesas, 4; Society, 4; Austral, 5; Samoa, 12; Fiji, 15 + (?) ; New Caledonia, 20 (?).

As on the Pacific islands east of Fiji, we find that on Guam three subfamilies predominate. These are the Cossoninae, Cryptorhynchinae and Otiorhynchinae. The endemic weevils of Guam may be listed as follows in accordance with their approximate percentages of comparative developments:

	percent		percent
Cossoninae	36	Brachyderinae	3
Cryptorhynchinae	27	Barinae	3
Otiorhynchinae	22	Ithyphorinae	3
Anthonominae	6		

In Samoa the approximate proportions are as follows:

	percent		percent
Cossoninae	37	Anthonominae	3
Cryptorhynchinae	32	Ithyphorinae	3
Barinae	7	Rhynchophorinae	3
Otiorhynchinae	6	Acicneminae	1
Brachyderinae	3	Tychiinae	1
Erirrhininae	3	Diabathrarinae	1

In isolated Hawaii with its three subfamilies containing endemic species, the proportions are: Cossoninae 65 percent, Otiorhynchinae 20 percent, and Cryptorhynchinae 14 percent.

It is evident that the development of the weevil fauna of Guam is quite typical of that of an Oceanic island.

The Brachyderinae are represented by a species of the ottistirine genus *Viticis*. The tribe Ottistirini is best developed in the Malay-Papuan areas. *Viticis* is a peculiar genus known to me from Amboina as well as from Guam and Fiji.

The Otiorhynchinae contain a well-developed complex of the celeuthetine genus *Trigonops*, which is abundantly represented among the islands surrounding Guam.

The Anthonominae are represented by two genera. One, *Amblycnemus*, is now known by described species from Samoa and Guam only, but there are

other new species before me from intervening islands. The other genus, *Usingerius*, is new and at present seems isolated, but when more comprehensive studies are made of the faunas of the other islands of the western Pacific we may expect to find other representatives of it and other genera allied to it.

The Barinae are represented by a single *Athesapeuta* which may prove to be introduced. That genus is predominantly Oriental and Indo-Malayan.

The Ithyporinae are represented by a new genus closely allied to the eastern Oceanic *Spanochelus* and the Australian *Fergusoniella*. Although *Spanochelus* is known in literature from the Samoan genotype only, I have found it rather abundantly represented from Fiji eastward, and I assume that it will be found west of Fiji. I am not acquainted with *Fergusoniella* in nature, and it is recorded only from Australia.

The Cryptorhynchinae show relationships with the faunas of the lands from India to the Marquesas. The Sophrorhini are represented by a species of *Deretiosus*, which genus reaches its greatest diversity in New Guinea and is distributed from the Philippines to Samoa. The discovery of a new species of *Oreda* is noteworthy, because two of its species are New Zealand forms; one is from southeastern Australia and another has been described from New Caledonia. The single species of *Menectetorus* represents a genus whose distribution reaches from Burma to Samoa. The new genus, *Neoampagia*, belongs to a group of genera distributed from Malaya to southeastern Polynesia. The new genus *Daealus* has its allies in the islands to the south and southwest of Guam. The four new species of *Microcryptorhynchus* represent a large genus of minute weevils whose known distribution extends southeastward from Guam through scores of islands to the Marquesas and Mangareva Islands in southeastern Polynesia as well as penetrating Australia and reaching Tasmania.

When we discuss the Cossoninae, we cannot show such clear-cut relationships with every genus, principally because the Cossoninae are little known. We may assume, I believe, that the affinities of this group are similar to those found in the other subfamilies, however, and that when more extensive collections are made and studied the several lacunae will be closed. The new tryptine genus, *Cylindrotrypetes*, will, I believe, remain monotypic and an apparent anomaly only so long as collections from surrounding islands are not much more carefully made or more completely studied than at present. Three new species are assigned with some diffidence to the monotypic Seychellean genus, *Choerorrhinodes*, although none is known from the intervening area. Further study may indicate some changes here, but it may not be so unusual, as it now seems to have an apparent connection between the faunas of the Seychelles and the Orient and the western Pacific. In *Stenotrupis* we have a genus well represented in the Pacific. The new genera *Tytthyoxydema* and *Rhinanisodes* have relatives in neighboring islands, *Rhinanisodes* apparently in New Zealand. *Himatatinum* has its species scattered widely in far corners of the world; the

nearest areas to Guam inhabited by the genus are Java and India. The new genus *Dryotribodes*, found on opposite sides of the Pacific at present, is obviously closely allied to another Pacific genus. *Eutornus* has a normal distribution that extends from Burma through the Philippines to New Zealand. On Guam is found a second species of *Macrancylus*; the genus is Oceanic. *Phloeophagosoma* has a number of species distributed widely from Madagascar through India to the Philippines, Japan, and out into the Pacific to Hawaii.

This review has shown the definite relationships between the Indo-Pacific faunas and the indubitable continuity of the faunas of the islands of the Indo- and Austro-Malayan subregions with those of Polynesia.

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LIST OF THE CURCULIONIDAE OF GUAM

BRACHYDERINAE

1. *Viticis guamae*, new species.

OTIORHYNCHINAE

2. *Trigonops inusitata*, new species.
3. *Trigonops inaequalis*, new species.
4. *Trigonops subfasciata* (Boheman).
5. *Trigonops hirsuta*, new species.
6. *Trigonops impura* (Boheman)
7. *Trigonops incrinita*, new species.
8. *Trigonops convexa*, new species.
9. *Trigonops vulgaris*, new species.

APIONINAE

10. *Cylas formicarius* (Fabricius).

ANTHONOMINAE

11. *Usingerius maculatus*, new genus, new species.
12. *Amblycnemis dentipes*, new species.

BARINAE

13. *Athesapeuta ulvae*, new species.

ITHYPORINAE

14. *Swezeyella muscosa*, new genus, new species.

CRYPTORHYNCHINAE

15. *Deretiosus ficae*, new species.
16. *Camptorhinus dorsalis* (Boisduval).
17. *Oreda maculata*, new species.
18. *Menectetorus setulosus* (Bohemian), new combination.
19. *Neoampagia imitator*, new genus, new species.
20. *Anaballus amplicollis* (Fairmaire).
21. *Euscepes postfasciatus* (Fairmaire).
22. *Acalles samoanus* Marshall.
23. *Daealus tuberosus*, new genus, new species.
24. *Daealus tibialis*, new species.
25. *Microcryptorhynchus guamae*, new species.
26. *Microcryptorhynchus premnae*, new species.
27. *Microcryptorhynchus spinifer*, new species.
28. *Microcryptorhynchus basipennis*, new species.

COSSONINAE

29. *Cylindrotrypetes suffusus*, new genus, new species.
30. *Choerorrhinodes constricticeps*, new species.
31. *Choerorrhinodes marshalli*, new species.
32. *Choerorrhinodes flavisetosus*, new species.
33. *Stenotrupis tenuis*, new species.
34. *Tytthoxydema exilis*, new genus, new species.
35. *Rhinanisodes planicollis*, new genus, new species.
36. *Himatium bisetosum*, new species.
37. *Dryotribodes obscurus*, new genus, new species.
38. *Dryotribodes angularis*, new species.
39. *Oxydema fusiforme* Wollaston.
40. *Oxydema longulum* (Bohemian).
41. *Aphanocorynes humeralis* Marshall.
42. *Eutornus nigriceps*, new species.
43. *Macrancylus niger*, new species.
44. *Phloeophagosoma sulcirostre*, new species.

RHYNCHOPHORINAE

45. *Rhabdocnemis obscura* (Boisduval).
46. *Cosmopolites sordidus* (Germar).
47. *Polytus mellerborgi* (Bohemian).
48. *Calandra oryzae* (Linnaeus).
49. *Diocalandra frumenti* (Fabricius).

In addition to the above species, *Dryotribodes denticulatus*, new species, from the Marquesas is described herein, and the following nomenclatorial changes, not included in the preceding list, are made: *Trigonops insularis* (Boheman), new combination for *Celeuthetes insularis* Boheman, 1843 = *Celeuthetes spongicollis* Fairmaire, 1849, new synonym, = *Celeuthetes griseus* Fairmaire, 1849, new synonym; *Fergusoniella*, new name for *Fergusonia* Lea, 1911, not Hoffman, 1878; *Pseudapries* Lea, 1908, is reduced to a synonym of *Menectetorus* Faust 1894; *Chaetectetus tutuilae* Marshall, 1931, and *Chaetectetus vitiensis* Zimmerman, 1937, are transferred to *Menectetus*.

SUBFAMILY BRACHYDERINAE

TRIBE OTTISTIRINI

Genus VITICIS Lea, 1930

Heretofore, this genus has been known only from the genotype, *Viticis bidentatus* Lea (Zimmerman, B. P. Bishop Mus., Occ. Papers 14(15) : 306-308, 1939) from Viti Levu, Fiji. It is easily recognized by its 6-segmented antennal funicle and its 3-segmented tarsi (the claw segment is wanting and the third segment is rounded and solid distally) together with its separated coxae and dentate femora.

Although the distribution of the genus now seems quite discontinuous, numerous new species undoubtedly will be described from various intervening islands. Since the writing of these notes, I have seen a new species from Amboina.

1. *Viticis guamae*, new species (pl. 1, B).

Derm black, dulled by coarse reticulation, tarsi diluted with red, antennae amber colored; scales moderately dense, somewhat irregularly condensed on some areas, especially at base of pronotum and on sides of elytra near base and beyond middle, the scales oval, convex, solid, with a pearly luster.

Head with crown finely punctate, setae fine, prostrate near top, becoming broader and more squamiform toward eyes; front broadly, shallowly, slightly or distinctly concave between eyes, the concavity extending well above level of tops of eyes in middle; eyes slightly longer than shortest distance between them, separated from prothorax by a distance about equal to two thirds of their length. *Rostrum* straightly expanded on sides, sub A-shaped from base to apex, but with the epistome projecting and making middle two thirds of the otherwise truncate apex strongly convex, as broad across broadest apical part as length plus one half length of an eye; squamosc on either side of front to antennae, thence coarsely reticulate and with scattered punctures, densely squamosc on sides along fore margins of scrobes. *Antennae* with scape as long as funicle excluding club; first funicular segment about as broad as long, as long as 2 plus 3, 2 hardly longer than 3, 4 to 6 successively slightly broader; club but slightly longer than broad, as long as the preceding five funicular segments. *Prothorax* four fifths as long as broad, apex slightly convex, base concave on either side of middle, but slightly arcuate on sides from base to apex, distance across base one fifth broader than that of apex; coarsely and densely punctate throughout; longitudinal dorsal contour evenly and slightly arcuate. *Elytra* two thirds as broad as long, three times as long as the prothorax; longitudinal dorsal outline rising evenly from base to reach summit at or slightly behind middle; broadest at apical third,

almost straightly and slightly expanded on the sides from the obtusely angulate humeri to apical third, lateral outline then constricted, then broadly rounded at apex; base convex on either side of bare scutellum; striae coarse, punctures coarse and as broad or broader than intervals basally, but becoming smaller and narrower than intervals distally, setae borne by punctures minute; intervals convex, the tenth costate behind. Legs with femora and tibiae rather densely clothed with elongate prostrate squamae; fore femora with strongly developed subtriangular tooth at basal fourth, apex of which is slightly bent distad, mid femora with two small tubercle-like teeth at about basal fourth, hind femora not toothed; fore and mid tibiae with a distinct tooth at inner apical angle and some small denticles along lower edge in apical half; third fore tarsal segment as broad as its length plus that of second segment. Sternum with scattered squamae at sides only, otherwise bare; metasternum coarsely reticulate, almost impunctate except along coxal cavities and at sides. Venter almost entirely bare, with a few scattered setae, almost impunctate in middle; fifth ventrite with a small median fovea. Length, 2 mm.; breadth, 1 mm.

Holotype, sex not determined, Asan, Aug. 22, 1936, Swezey; one paratype, Upi Trail, May 5, Usinger.

This species may perhaps be distinguished from the genotype most readily by its lack of conspicuous asperate callosities above the eyes. It is distinct from any other Guam weevil.

SUBFAMILY OTIORHYNCHINAE

TRIBE CELEUTHETINI

Genus **TRIGONOPS** Guérin-Méneville, 1841

The genus *Trigonops* is the only representative of the Otiorhynchinae known to inhabit Guam. It is an Indo-Australian genus abundantly represented in the islands to the south of Guam—New Guinea, the Solomons, Java, and others. A number of new species from the Caroline and Palau Islands in the collections before me await description. It seems unusual to me that the allied genus *Sphaeropterus* has not populated Guam, for I have before me a number of species from the Caroline and Palau Islands.

Heretofore, there have been three species of *Trigonops* (described as *Celeuthetes*) reported from Guam, but one of these species is not a Guam insect. To the two known species, I add six new ones to make a total of eight species now known from Guam. My reasons for concluding that one of the species was recorded from Guam in error are as follows: Boheman, in Schoenherr's Gen. Spec. Curc. 7(1):251, 1843, described *Celeuthetes insularis* from "Insula Guaham." The male holotype, however, bears the labels "Fidje Ins." and "Thorey." It is therefore evident that the locality in the type description is a misquotation. Moreover, the holotype is identical with the male of *Trigonops spongicollis* (Fairmaire) which is widely distributed in the south Pacific through the Fijian, Tongan, Samoan, Cook, Society, Austral, and other islands of that region and which was originally described from Tahiti. The confusion does not end here, however. A typical male specimen taken by me from a colony of *Trigonops spongicollis* (Fairmaire) was sent to the National Museum

at Paris for comparison with the type. Dr. Lesne pronounced it the same as *Trigonops grisea* (Fairmaire). I have dissected specimens taken from the same plant and have found that *Trigonops spongicollis* is a quite sexually dimorphic species and that *Trigonops grisea* is only the male of *Trigonops spongicollis*. The following synonymy is, therefore, necessary:

***Trigonops insularis* (Bohemian), new combination.**

Celeuthetes insularis Boheman, in Schoenherr's Gen. Spec. Curc. 7(1):251, 1843. Male

Celeuthetes spongicollis Fairmaire, Rev. Zool., 505, 1849. Female. (New synonym.)

Celeuthetes griseus Fairmaire, Rev. Zool., 508, 1849. Male. (New synonym.)

Elytrurus squamatus Rainbow, Austr. Mus., Mem. 3:92, 1897. Synonymy by Marshall, Roy. Ent. Soc. London, Trans. 87(3):69, 1938.

There was considerable difficulty in drawing up the descriptions of the Guam *Trigonops* because of the variation found between the individuals of some of the species.

KEY TO THE SPECIES OF GUAM TRIGONOPS

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|--|-----------------------------------|
| 1. Elytra conspicuously uneven, with numerous irregularities on the disk; intervals 5, 6, and 7, especially 5 and 6, rather prominently and irregularly elevated at the top edge of the lateral declivity; prothoracic puncturation very coarse and dense, the punctures tending to be longitudinally confluent, the interstices irregular, some broader, many narrower than the punctures (length 5 to 8 mm.) | 2. <i>T. inusitata</i> Zimmerman. |
| Elytra not so formed; prothorax not very coarsely punctate, the interstices almost always broader than the punctures; if the prothorax is comparatively coarsely punctate and elytral intervals 5, 6, and 7 elevated, then the disk of the elytra is never irregular and the length is less than 5 mm. | 2 |
| 2(1). Pronotum obviously depressed above, distinctly angulate at the sides of the disk at base in front of elytral intervals 6 and 7, the angulation formed by a low, rounded, short, longitudinal carina that is covered with paler scales in fresh specimens, disk, when denuded, densely and conspicuously granulate and with scattered indistinct punctures..... | 3 |
| Pronotum usually quite distinctly convex above and not obviously depressed, without a baso-lateral carina before elytral interval 6..... | 3 |
| 3(2). First funicular segment obviously longer than second, fully a fourth or a third longer than second..... | 4 |
| First funicular segment as long or just perceptibly longer than second, never a quarter longer (usually between 15/13 or 12/11 as long)..... | 5 |
| 4(3). Prothorax as long or slightly longer than broad; scales on dorsum each appearing hard, smooth, convex and shiny..... | 4 |
| Prothorax broader than long; scales of dorsum not smooth, convex and shiny, but appearing soft and spongy, each coarsely reticulate or farinaceous..... | 5 |
| 5(3). Entire elytra including disk bristling with long, almost straight conspicuously erect or but slightly curved, black, hairlike setae; disk of pronotum with short erect setae..... | 6 |
| Elytral and pronotal disks with decumbent or prostrate setae only, never with conspicuously erect setae..... | 6 |

- 6(5). Discal elytral intervals without any setae on basal half.....
 7. *T. incrinita* Zimmerman. 7
- Discal elytral intervals with setae on basal halves.
- 7(6). Eyes not strongly convex and not protuberant (as in fig. 1, *a*), as long or slightly longer than distance between them; distance between median angle of interocular suture and apex of transrostral carina more than three fourths to fully as long as narrowest interocular breadth; setae on mid and hind femora closely appressed to derm, with their recurved tips usually touching or almost touching the derm..... 8. *T. convexa* Zimmerman.
- Eyes strongly convex (as in fig. 1, *b*), shorter than distance between them; distance between median angle of interocular suture and apex of transrostral carina much shorter than narrowest interocular breadth; setae on mid and hind femora, especially along lower edge, slanting rather distinctly away from derm and giving lower edge of femora a rather spiny appearance..... 9. *T. vulgaris* Zimmerman.

2. *Trigonops inusitata*, new species (pl. 1, *F*).

Derm very dark brown to black; rostrum with brown scales, often with a greenish or bronzy cast at base, those on apical declivitous part usually mostly greenish; head with brown scales with bronze and green scales intermixed; pronotum with pale, almost white scales, with fawn-colored and darker brown scales interspersed, lateral scaling palest, most scales with a bronzy cast; elytra predominantly with dark brown bronzy scaling, usually with a conspicuous, almost white, broadly V-shaped fascia across middle, but this fascia subject to great variation, often absent or indistinct; legs with paler scaling beyond middle of club of femora than proximally, tibiae with similarly colored, rather dark brown bronzy scales as on bases of femora; scaling below similar to that on sides of elytra.

Head with round, rather deep punctures on front, punctures usually not separated by more than their diameters, and variable, usually somewhat obscured by the scaling, each puncture bearing a white, recurved seta which does not reach much beyond the margin of its puncture, scales close, not imbricated; eyes evenly convex, not strongly protuberant and only slightly interrupting longitudinal lateral outline of head, about as long as narrowest interocular breadth. *Rostrum* with basal part between transrostral carina and basal suture almost straight or slightly convex longitudinally, slightly shorter than distance between eyes, with a variable median carina that is usually distinct only near the transrostral carina; declivitous apical part rather shiny, with small obscure punctures, scales becoming smaller and sparser distally; apex, sides, and venter of rostrum, including sides of mandibles, bristling with long erect setae. *Antennae* with scape slightly longer than funicle excluding club, densely squamose and with numerous, rather long, white, recumbent or subrecumbent setae, apex only slightly enlarged; funicle with short and long setae and without scales, length of segments as follows: (1, 1.8) (2, 1.8) (3, 1.3) (4, 1.2) (5, 1.1) (6, 1.1) (7, 1.0); club about as long as segments 3 plus 4, its first segment bearing the ratio of 10:6 to its second, first segment as long as funicular segment 7. *Prothorax* slightly broader than long (4.5:4.0), broadest at middle, subequally narrowed from middle to base and middle to apex, disk but slightly convex or somewhat depressed; punctures coarse and deep, somewhat irregular and variable, often making dorsum somewhat irregular, some tending to be longitudinally confluent, interstices variable in breadth, some only as broad as a scale and narrower than punctures, others as broad as punctures, others broader; each puncture bearing a recurved, transversely directed seta about as long as its puncture; punctuation less coarse and deep on pleurae. *Elytra* from about two thirds to about three fourths as broad as long, broadest in females, broadest at the postero-lateral corners of the extensions of humeral angulations; base truncate or slightly concave, almost straightly and angulately expanded on sides to about basal fifth to form conspicuous pseudo-humeri, thence rather broadly rounded to distal third, thence sharply narrowed to apex, or more or less regularly narrowed from just behind basal angulation; disk usually conspicuously irregular, with variform undulations and low, rounded, feeble protuberances

of derm, intervals 5 to 7 usually prominently and irregularly elevated distally; intervals each with a row of decumbent white setae, first intervals usually with a small common fascicle on a line between and slightly before apices of fourth intervals; striae distinct throughout; scales usually free and narrowly separated, appressed, reticulate and iridescent. Legs with femora about as narrow as tibiae at base and about one tenth longer, hind pair reaching to apex of fourth ventrite in female, to middle of fifth in male, strongly clavate, middle of bulbous part about seven tenths length of femora from base and there about three times as broad as base, densely squamose and with scattered inclined white setae; tibiae, excepting a slight distal expansion, subparallel-sided, slightly sinuous, densely squamose and with setae more erect than on femora. Sternum with scaling almost entirely concealing derm above coxae, somewhat sparser between coxae; punctures moderately dense, not very coarse, shortest distance between mid and hind coxae about as long as breadth of a mesocoxa. Venter with first two ventrites tumid in female, broadly impressed down middle in male; punctures shallow, each giving rise to a rather long, suberect seta; scaling dense but not entirely concealing derm; ventrite 5 about twice as long as 3 plus 4, rather coarsely asperate, closely set with fine setae. Length, 5-8 mm.; breadth, 3-4 mm.

Holotype male, Barrigada, on *Morinda*, July 22, 1936, Swezey; allotype female, Ritidian Point, May 22, Bryan; and following paratypes: 20 specimens taken by miscellaneous sweeping, Machanao, June 2, Swezey; two specimens collected from *Piper guahamense*, and one each from *Calophyllum*, *Pipturus*, *Ochrosia*, and *Macaranga*, June 4, Swezey; one, June 5, Usinger; four, June 6, Swezey; two, June 30, Swezey; Upi Trail, one taken by Usinger and two by Bryan, May 5, six, by miscellaneous sweeping, Swezey; one taken from ferns by Swezey; one taken from *Premna* by Swezey, Sept. 1; one, Orote Peninsula, May 9, Bryan; five, Ritidian Point, April 15, Bryan and four, April 16, four, April 22, five, June 2, Usinger; Barrigada, one from miscellaneous sweeping, June 12, Swezey; one from *Hibiscus tiliaceus*, one from *Intsia bijuga*, and three from *Morinda*, July 22, Swezey; Mt. Alifan, one, May 20, Bryan; Dededo, one, May 11, Swezey; Magua, one taken from *Codiaeum*, March 31, Bryan; five, without specific locality, July 1923, Hornbostel; three, D. T. Fullaway, labeled only "Island Guam."

In the National Museum collection are the following paratypes: 18 specimens bearing labels "Guam 134, R. G. Oakley, ix-15-37, on *Piper guahamense*, 37-26120" and one labeled "Island Guam" taken by Fullaway.

This variable species is one of the most easily recognized of Guam members of the genus because of its coarsely sculptured pronotum and uneven elytra. It is allied to *T. vulgaris* and *T. convexus*, but it is quite distinct from either of those species.

3. *Trigonops inaequalis*, new species (pl. 1, E, H).

Derm reddish brown to black, venter and appendages diluted with red; color pattern of scaling subject to considerable variation, evidently easily changed by age and abrasion; holotype male, a fresh, perfect specimen with the following scaling: head, rostrum, antennae, prothorax, elytra, and legs rather evenly clothed with bluish-gray somewhat iridescent scales, but pronotum with rather bright yellow scales around anterior edge, a conspicuous, entire median vitta, and a vitta covering baso-lateral angulation in front of elytral intervals 6 and 7 and extending almost to middle of side, elytra with intervals 1, 3, 5, 7, and 11 entirely clothed from base to declivity with bright yellow scales, the yellow extending

farther caudad on sutural intervals, elytra therefore beautifully vittate, the areas caudad and laterad of the vittate parts of intervals with small patches of yellow squamae; femora with some yellowish scaling on dorsa of their clubs; scaling on allotype female as follows: basic coloration without so much blue as in holotype, scales more yellowish, scaling on head and rostrum with distinct yellowish cast; pronotum with a similar pattern of yellow scales as on holotype, but much less distinct because of more yellowish background scales; elytra with numerous scattered patches of yellow squamae with a bronzy luster and not vittate; scaling on old, abraded specimens with hardly a trace of the scale pattern of perfect types.

Head with the front minutely granulate, rather densely squamose, scales round, not imbricated, punctures not large, rather close, obscured by scaling, each bearing a short, rather inconspicuous recurved seta; eyes moderately convex, not protuberant, but their outlines distinctly discontinuous with sides of head, as long as shortest interocular distance. *Rostrum* without a distinct median carina on area between transrostral carina and basal suture, area between carina and suture flattened and somewhat shorter than distance between eyes; declivitous apical part shiny, with small punctures and small, scattered squamae; apex, and sides of mandibles with numerous long setae. *Antennae* with scape but slightly expanded distally, densely squamose and with rather long setae, not quite as long as funicle excluding club; funicle with lengths of segments as follows: (1, 1.9) (2, 2.3) (3, 1.7) (4, 1.5) (5, 1.3) (6, 1.3) (7, 1.3); club slender, about as long as 7 plus 6 plus three fourths of 5, its first segment three tenths longer than its second. *Prothorax* about as broad as long, broadest at or slightly behind middle, with a distinct basal pseudocarina formed by a low rounded longitudinal angulation in basal third at sides before elytral intervals 6 and 7; disk usually obviously depressed, densely granulate, the granules mostly hidden by scales in unabraded specimens, with rather small punctures usually separated by interstices broader than their diameters, each puncture bearing a short, decumbent, transversely directed seta that hardly extends over margin of puncture; scales rounded, convex, appearing solid, minutely reticulate. *Elytra* about five sevenths as broad as long, twice as long as prothorax, broadest somewhat before middle; base slightly concave; rather evenly and straightly expanded on sides from base to about basal fourth, thence convex to about middle, thence strongly narrowed to pointed apex; striae well marked, strial punctures, especially those near base on disk, each preceded by a low polished tubercle; intervals flat, their discal setae short, prostrate, inconspicuous, longer, more numerous and erect or suberect near apex, usually with a feeble sutural fascicle slightly behind apical fourth; scales flat, rounded, not completely concealing derm, conspicuously reticulate. *Legs* with hind femora reaching almost to apex of fifth ventrite in male, about a third broader at base than base of tibia, bulbous part slightly more than twice as broad as base, its middle one third from apex, densely squamose, setae slanting; hind tibiae slightly shorter than femora, densely squamose, with long, slanting or almost erect white setae, almost straight along outer edge. *Sternum* less densely clothed than dorsum, mesosternal epimera bare except for a patch of scales at postero-lateral side; intercoxal process of mesosternum usually more densely squamose than mid section of metasternum which is free from scales or has scattered squamae; metasternum between mid and hind coxae about two thirds as long as breadth of a mesocoxa. *Venter* with first two ventrites with fine setae borne from scattered punctures and free from scales except at sides, flattened in male, tumid in female; ventrites 3 and 4 together shorter than fifth, setose and punctate at sides only; ventrite 5 densely and coarsely punctate, rather densely setose, not squamose. Length, 7.5-9.0 mm.; breadth, 3.5-4.0 mm.

Holotype male, Dandan, from *Glochidion*, July 17, 1936, Swezey; allotype female and three female paratypes, Fullaway, labeled "Island Guam." In the National Museum collections are two paratypes taken by Oakley on *Premna gaudichaudii*, July 23, 1937 "37-24081" and one from the same lot as the allotype.

This species is most distinct from any of the other Guaman *Trigonops*. Perfect, vittate specimens can be recognized at a glance because of their distinctive appearance and beauty. The abraded specimens are almost as easily recognized because of the granulate, depressed prothorax with the short baso-lateral carinae.

4. ***Trigonops subfasciata* (Boheman)** Faust, Stett. Ent. Zeitung 58:236, 1897.

Celeuthetes subfasciatus Boheman, Eugenies Resa, 126, 1859.

Holotype male: derm reddish brown; densely clothed with mostly pale brown scales intermixed with almost white scales, almost concolorous; darker scales forming a patch on either side of base of pronotum before elytral intervals 3-5; elytra with a rather vague broad V of paler scales, the apex of which is on the suture above apex of ventrite 2, arms across sixth interval just in front of middle; dorsal squamae smooth, shiny and with a rather pearly luster, rounded, convex and appearing hard.

Head with dense scaling concealing punctures which give rise to decumbent setae that extend well beyond margins of punctures; eyes conspicuously convex, moderately prominent, strongly interrupting lateral cephalic outline, little longer than half distance between them. *Rostrum* with area between transrostral carina and basal suture flat longitudinally, abruptly and obviously depressed below level of carina, slightly convex laterally, without a median carina, squamose part somewhat more than half as long as interocular breadth; apical declivitous part, with exception of a few minute scales near base, bare and shiny, densely and rather coarsely punctate. *Antennae* (left antenna lost from type) with scape longer than funicle plus first segment of club; funicular segments as follows in length: (1, 1.5) (2, 1.1) (3, 0.9) (4, 5, 6 and 7, 0.8), club elongate oval, as long as funicular segments 7 plus 6 plus 5 plus half of 4, second segment six tenths as long as basal segment. *Prothorax* slightly longer than broad, broadest slightly behind middle, arcuate on sides, somewhat more narrowed anteriorly than posteriorly, slightly, almost imperceptibly constricted just before apex, disk slightly, gently convex longitudinally, rather densely punctate, the punctures usually separated by interstices about as broad as their diameters, obscured by dense scaling, setae arising from interstices instead of from punctures, strongly arcuate, medially inclined. *Elytra* subovate, three fourths as broad as long, twice as long as prothorax, almost straight in longitudinal dorsal outline in basal half, base concave rather straightly expanded on sides to basal fourth thence rather evenly arcuate to pointed apex; striae deep throughout; intervals almost flat on disk, obviously convex at sides and apex; scaling very dense, closely appressed; setae on disk decumbent, becoming erect caudad, interval one with two rows on declivity. *Legs* with hind femora reaching beyond base of fifth ventrite, broadest part of club twice as broad as base and about five eighths of length from base, densely squamose, almost all of setae slanting and not strongly decumbent, hind tibiae slightly shorter than femora, densely squamose and bristling with setae. *Sternum* with intercoxal process of the prosternum half as broad as a fore coxa, distance between coxal cavity and fore margin one third that between cavity and hind margin, coarsely punctured, scales coarsely reticulate, numerous; mesosternum with area just laterad to coxa bare, but epimera densely squamose, intercoxal process densely squamose; metasternum between mid and hind coxae about three fourths as long as breadth of a metacoxa, closely set with large deep punctures in middle, punctures becoming smaller laterally, each puncture bearing a long slanting seta, densely clothed with coarsely reticulate iridescent scales. *Venter* with first ventrite broadly and conspicuously impressed in male, first two ventrites coarsely and densely punctate, punctures bearing conspicuous erect setae, densely squamose, but less densely so down middle of first ventrite and at middle of base of second; ventrites 3 and 4 with a row of coarse setiferous punctures from side to side; ventrite 5 densely and coarsely punctate, setose and conspicuously squamose. Length, 6 mm.; breadth, 3 mm.

Holotype male, labeled "Guam" and "Kinb.", in the Naturhistoriska Riks-museum at Stockholm.

It is strange that this species is not represented among the many Guaman specimens of the genus before me. It is obviously closely allied to *Trigonops hirsuta*, but the prostrate discal elytral setae and different squamae will distinguish the species.

5. *Trigonops hirsuta*, new species (pl. 1, D).

Derm dark reddish brown to black; scaling almost uniformly grayish white or with a brownish cast, browner in old specimens, scales in fresher specimens giving iridescent reflections; pronotum normally with a variable, broad vitta from base to apex on either side of median line of slightly to distinctly darker scales; elytra either concolorous or appearing vaguely vittate because of darker, paler or more densely squamose areas on some intervals; scaling otherwise almost or quite concolorous.

Head with front almost straight in longitudinal dorsal outline, densely squamose, less densely so at sides than mesad, punctures denser and more conspicuous laterally, bearing prostrate or inclined medially directed setae; eyes quite prominent, unevenly convex, roundly subconical, much more steeply rounded behind than distally, about three fourths as long as distance between their inner margins. *Rostrum* with area between transrostral carina and basal suture flattened longitudinally and distinctly sunken below level of carina, distance between carina and suture three fourths or somewhat more than three fourths as long as interocular breadth; apical declivitous part concave between and above antennae, rather densely squamose at base, bare or with but a few scattered squamae distally, shallowly punctate. *Antennae* with scape as long as funicle plus first two segments of club, densely squamose, finely setose; funicular segments as follows in length: (1, 1.6) (2, 1.0) (3, 0.9) (4-7, 0.7); club rather elongate subcylindrical; about as long as funicular segments 5-7 inclusive plus three fourths of 4, its first segment about one fourth longer than its second. *Prothorax* as long as broad to distinctly broader than long, broadest at or slightly behind middle, dorsal contour gently convex laterally and longitudinally; densely punctate, but punctuation obscured by dense scaling which entirely conceals derm of interstices which are as broad or slightly narrower than diameters of punctures on disks; setae medially inclined, arising from lateral dorsal edges of, and extending across punctures. *Elytra* about three fourths as broad as long, somewhat more than twice as long as the prothorax, broadest at or slightly in front of middle, rather evenly ovate in basal two thirds, thence sharply narrowed to apex, evenly convex dorsally; striae deep and well defined throughout, their punctures close; intervals slightly convex on disk, more strongly so behind and laterally, densely squamose, scales, as on almost all of body, appearing soft and spongy, their edges somewhat minutely serrate, their surfaces beaded; setae erect throughout, discal ones curved, but seen as distinctly erect when viewed from side, becoming more numerous and longer caudad; usually with a poorly developed sutural fascicle on declivity. *Legs* with hind femora reaching to slightly beyond apex of fourth ventrite in female to about middle of fifth in male, base slightly broader than base of hind tibia, broadest part of club about twice as broad as base and two thirds length of femora from base, densely squamose, setae slanting or suberect throughout; hind tibia one ninth shorter than femora, straight on outer side above distal expansion, densely squamose, setae erect or nearly so. *Sternum* with prosternum deeply and coarsely punctate, squamose, setae erect, distance between coxal cavity and anterior margin one third that between cavity and hind margin, intercoxal process one fourth to almost one half as broad as a coxa; mesosternum almost entirely bare, shiny, just above the coxa, side pieces punctate and densely squamose throughout; metasternum between the mid and hind coxae as broad as a mesocoxa, coarsely punctate, punctures denser toward middle, that area, therefore, less densely squamose than sides, setae erect and conspicuous. *Venter* with first ventrite continuously, broadly and deeply concave with metasternum down middle in male, depressed before and behind middle in female, coarsely and densely punctate, denser on disk, scales becoming

smaller and scattered medially, setae long and erect; second ventrite not quite so coarsely punctate as first, less densely squamose at middle of base; third and fourth ventrites punctate, setose and densely squamose throughout; fifth ventrite densely punctate, squamose and setose. Length, 5-7 mm.; breadth, 3-4 mm.

Holotype male, Inarajan, from *Ipomoea pes-caprae*, May 6, 1936, Usinger; allotype female, Umatac, same host, May 28, Usinger; and the following paratypes: eight specimens with the same data as the holotype; 20 specimens with the same data as the allotype; five specimens, Inarajan, May 17, Bryan; one specimen, Tumon, from *Premna*, May 30, Swezey; one specimen, Magua, from *Codiaeum*, March 31, Bryan; one specimen, Fadian, from *Sida*, Aug. 19, Swezey; one, Piti, from *Morinda*, Sept. 21, Swezey; one, Agat, Oct. 17, Swezey; one, Hornbostel, labeled "Guam I, 1924"; two, Fullaway, labeled "Island Guam." The following paratypes are from National Museum material: 30 specimens, from "Lobelia" [*Scaevola frutescens*], May 22, 1937, Oakley no. 728, and one, from *Hibiscus tiliaceus*, Sept. 17, 1937, Oakley, no. 37-26121.

This species may readily be distinguished from all other Guam *Trigonops* by the peculiar scaling in combination with its long first funicular segment and erect elytral setae. It is very closely allied to *T. subfasciatus*, but the scales are beaded or granulate instead of being smooth, hard, shiny, and entire as on the dorsum of *T. subfasciatus*.

6. *Trigonops impura* (Bohemian) Faust, Stett. Ent. Zeitung 58:236, 1897
(pl. 1, A).

Celeuthetes impurus Boheman, Eugenies Resa, 127, 1859.

Derm dark reddish brown to black, quite shiny where exposed, appendages usually more strongly diluted with red; scaling almost uniformly dirty gray with a brownish cast above, scales slightly or conspicuously iridescent; head with green scaling at base; a few green scales scattered on rostrum; prothorax without any distinct markings; elytra colored as the pronotum, concolorous, setae white, gray, or black; scaling on the legs similar to or slightly paler than that of elytra.

Head with front coarsely, deeply and variably punctured, punctures in part concealed by scaling, with a few suberect setae near interocular sulcus; eyes strongly convex, not quite hemispherical, rather strongly protuberant, from slightly more than one half to three fourths as long as distance between their inner margins. *Rostrum* with area between transrostral carina and basal suture flattened or slightly convex and distinctly depressed below level of carina, about three fourths as long as interocular breadth, laterally convex, with a vague trace of a median carina; apical declivitous part almost flat transversely, shallowly, rather densely punctate, with scattered small green scales. *Antennae* with scape rather densely squamose, setae erect, varying in length from as long as seven funicular segments to as long as funicle plus first segment of club; funicle with lengths of segments as follows: (1, 1.2) (2, 1.0) (3, 0.7) (4, 0.6) (5, 0.5) (6-7, 0.5); club rather narrowly pointed, almost as long as three preceding funicular segments together, its first segment but slightly longer than the second. *Prothorax* slightly broader than long, broadest at about middle, rather gently arcuate on sides; coarsely, deeply, densely punctate, punctures variable, either separated by interstices, narrower, as broad as or broader than their diameters or confluent and forming conspicuous longitudinal grooves of chains of punctures; setae arising from intervals, inconspicuous when viewed from directly above, but seen as distinctly erect when viewed from side; interstices densely clothed with rounded,

reticulate, iridescent scales. *Elytra* about three fourths as broad as long, about 2.5 times as long as prothorax, base concave, broadest at about middle, rather evenly rounded laterally to behind middle, thence strongly, slightly concavely, pointedly narrowed to the apex, longitudinal dorsal contour rather evenly convex; striae deep and distinct throughout, their punctures bearing minute, inconspicuous setae; intervals slightly convex on disk, the fifth and sometimes the sixth and seventh, usually more elevated caudad, setae long, conspicuously erect, bristling, only slightly arcuate, discal ones as long and conspicuous as others; squamae dense, flattened, reticulate, appearing granulate and iridescent. *Legs* with hind femora extending slightly beyond apex of fourth ventrite in female, densely squamose, setae long, fine, slanting to almost erect, broadest part of club twice as broad as base and at about three fourths of distance from base to apex; hind tibiae slightly shorter than femora (5:5.5), almost straight on outer side from base to apical expansion, densely squamose, setae slanting erect. *Sternum* with distance between anterior margin of prosternum and fore edge of coxal cavity one half that between cavity and hind margin, intercoxal process somewhat more than one third as broad as a coxa, densely squamose, coarsely punctate; mesosternum with side pieces densely squamose, coarsely punctate, almost or quite bare just above coxa, intercoxal process coarsely and densely punctate, squamose, setae erect; metasternum between mid and hind coxae two thirds to four fifths as broad as a mesocoxa, coarsely and densely punctate, squamose on interstices, setae long, erect. *Venter* with first two ventrites strongly tumid in female, flattened down middle in male, coarsely and densely punctate, densely squamose, but denuded in middle in male, setae long, slanting erect; ventrites 3 and 4 punctate and setose from side to side and with a few scattered squamae; ventrite 5 densely punctate and setose, squamae scattered. Length, 4 mm.; breadth, 2 mm.

Holotype female, labeled "Guam" and "Kinb." in the Naturhistoriska Riksmuseum at Stockholm. One specimen, Mt. Tenjo, May 3, 1936, Usinger; another, Talofofo, from the plateau, June 17, Swezey.

The conspicuously erect dorsal setae alone will distinguish this small species from all of the Guam *Trigonops* except *T. hirsuta*, but the elytral setae are longer than in that species, the antennae are differently formed; this species is smaller, has a different facies, and is not closely allied to *T. hirsuta*.

7. *Trigonops incrinita*, new species (pl. 1, C).

Derm dark reddish brown to black; scaling basically white or grayish white, normally almost entirely concolorous, but when abraded appearing blotched or tessellated with small to large black areas; elytra usually with a vague post-median V of denser scaling.

Head with the front densely squamose, scaling concealing puncturation which is evidently fine and shallow, setae inconspicuous; eyes rather flatly convex, not strongly interrupting longitudinal lateral cephalic outline, as long or slightly longer than narrowest interocular breadth. *Rostrum* with area between transrostral carina and basal suture slightly to distinctly convex longitudinally, either distinctly impressed below level of carina or continuous in outline with apical part of rostrum, with a fine median carina, about three fourths to almost as long between the carina and basal suture as the interocular breadth; apical declivitous part densely but not coarsely punctate, with numerous scales at base and scattered scales distally. *Antennae* with scape densely squamose, closely set with decumbent setae, the tips of most of which touch derm, longer than funicle to slightly longer than funicle plus first segment of club; funicle with lengths of segments as follows: (1, 1.4) (2, 1.3) (3, 1.1) (4, 1.0) (5, 0.9) (6, 0.8) (7, 0.7); club rather stoutly oval, slightly shorter than preceding three funicular segments. *Prothorax* as long as broad, broadest at or slightly behind middle, subequally narrowed toward base and apex, disk gently convex sometimes just perceptibly flattened along middle in basal half; discal punctures comparatively rather small, separated by interstices about as broad or broader than their diameters, concealed by dense scaling, scales angular and forming a reticulate

pattern, some of discal interstices bearing small, low tubercles; setae few, small, hardly discernible. *Elytra* three fourths as broad as long, twice as long as prothorax, broadly rounded on sides from subtruncate or concave base to about apical third, thence sharply narrowed to apex, broadest before middle; discal striae shallow, almost concealed by scaling in some places, distinctly deeper on lateral declivities, their discal punctures rather deep, striae often not impressed between them, some near the base sometimes with low tubercles at their bases; discal intervals quite flat, scaling very dense, almost imbricated, scales mostly angular, flat, appearing rather dull because of their minute reticulation, without discal setae, with only a few setae on declivity. *Legs* with hind femora reaching to or behind middle of fifth ventrite, broadest part of club slightly more than twice as broad as base and at five eighths of distance between base and apex, densely squamose, setae closely appressed to derm and not slanting or erect; hind tibiae almost straight on outer side from base to apical expansion, densely squamose, setae decumbent or but slightly slanting away from derm. *Sternum* with prosternum about one half as long from anterior margin to fore edge of coxal cavity as distance between hind margin and cavity, intercoxal process one fourth to one third as broad as a coxa, densely squamose, densely punctate; mesosternum densely squamose excepting a small bare area just above coxa; metasternum one third to one half as long between mid and hind coxae as breadth of a mesocoxa, densely squamose from inner margins of coxae outward, less densely toward middle, rather closely punctate, setae decumbent. *Venter* with first ventrite free from scales in middle, densely clothed laterally, punctures separated by interstices about as broad as their diameters, setae rather long, decumbent; second ventrite sculptured and setose as the first, but with denser scaling medially; third and fourth ventrites sculptured and evidently setose for their entire breadths; ventrite 5 coarsely and densely punctate, densely setose, most of setae decumbent, but with some long erect setae near apex, with only a few scattered scales. Length, 4.5-5.0 mm.; breadth, 2.5-3.0 mm.

Holotype, sex not certain, Guam, from *Hibiscus tiliaceus*, Sept. 17, 1937, Oakley, numbers 135 and 37-26161 (in U. S. Nat. Museum); and two abraded paratypes, labeled "Island Guam", Fullaway.

This species is closely allied to *T. vulgaris* and *T. convexa*, but can be separated from those species, as well as all of the other Guam species, by the absence of discal setae on the elytra.

8. *Trigonops convexa*, new species (pl. 1, I; fig. 1, a).

Derm dark reddish brown to black; scaling subject to great variation, dorsum varying from grayish white to coppery brown; pronotum usually with dark scales in front of elytral intervals 2 and 3; elytral marking variable, but usually with a patch of white squamae at least on third interval at about middle or with a V-shaped fascia of white scales across elytra.

Head rather closely punctured, punctures obscured by dense scaling, setae recumbent; eyes broadly convex, not protuberant, not sharply interrupting lateral cephalic outline, as long as or slightly longer than interocular breadth. *Rostrum* with basal part between transrostral carina and basal suture convex to very strongly convex longitudinally, not depressed below transrostral carina, with a variable, longitudinal median carina, three fourths or more than three fourths as long as interocular breadth; declivitous apical part finely to moderately coarsely punctured in middle, more coarsely and densely toward sides and base, squamose and with erect or suberect setae at base. *Antennae* with scape longer than seven funicular segments, setae so curved that their apices touch or almost touch derm; funicle with lengths of segments as follows: (1, 1.3) (2, 1.2) (3 and 4, 0.9) (5, 6, and 7, 0.8); club about as long as three preceding funicular segments, its first segment about three eighths longer than second. *Prothorax* about as long as broad, broadest at or slightly behind middle; discal punctuation variable, the punctures comparatively fine to rather coarse, setae decumbent, arising from outer sides of punctures and extending

across them toward median line; interstices often with low granules. *Elytra* more than three fourths as broad as long, twice as long as prothorax, broadly convex on sides from base to beyond middle thence sharply narrowed to apex; striae well defined, but not deeply impressed between punctures, not concealed by scaling, usually with polished granules bearing quite conspicuous setae at bases of punctures toward base; intervals flat or hardly convex on disk, the sixth usually distinctly more elevated and carinate behind, especially in males; scales angular, their surfaces minutely reticulate, closely appressed; setae rather short, slightly slanting or decumbent on disk. *Legs* with hind femora reaching to slightly beyond apex of fourth ventrite in female, to about apex of fifth in male, setae decumbent, not slanting distinctly away from derm; hind tibiae bristling with slanting setae, straight on outer margin. *Sternum* with prosternum one half as long between a coxal cavity and fore margin as between cavity and hind margin, intercoxal process about one fourth as broad as a coxa; mesosternum with side pieces densely squamose, intercoxal process coarsely punctate; metasternum between mid and hind coxae about two thirds as long as breadth of a mesocoxa, coarsely punctate in middle and there with long, slanting setae and scattered scales. *Venter* with first ventrite almost free from scales in middle, slightly flattened or tumid in female, distinctly flattened in male, coarsely punctate, setose as the metasternum; second ventrite denuded at middle near base, otherwise densely squamose; third and fourth ventrites punctate and setose from side to side; fifth ventrite densely punctate and setose and with few or no scales. Length, 4-6 mm.; breadth, 2-3 mm.

Holotype male, Upi Trail, May 5, 1936, Usinger; allotype female, Machanao, June 30, Swezey; seven specimens taken at same time and place as holotype by Swezey, five by miscellaneous sweeping and two from ferns; 19 specimens with same data as allotype, but two from *Ficus*; two specimens from same locality, June 5, Usinger; two, same locality, one from *Ipomoea pes-caprae*, June 4, and the other Aug. 6, Usinger; three, Ritidian Point, June 2, Usinger; five, Yigo, Nov. 13, Swezey; one, Dededo, Nov. 8, Swezey; three, Orote Peninsula, May 9, Bryan; two, Orote Peninsula, one Sept. 1, from *Premna*, the other, Sept. 27, from *Sida*, Swezey; one, Upi Trail, May 5, Bryan; two,

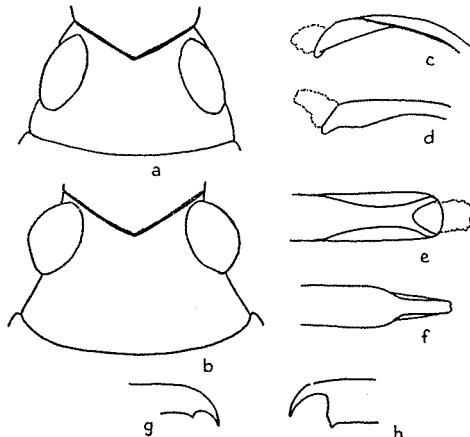


FIGURE 1.—Outlines of structures of Curculionidae: (a, b), outlines of heads of (a) *Trigonops convexa* and (b) *T. vulgaris*, showing convexity of eyes; (c, d), lateral outlines of aedeagus of (c) *Microcryptorhynchus guamae* and (d) *M. premnae*; (e, f), dorsal outline of aedeagus of (e) *M. premnae* and (f) *M. guamae*; (g, h), apices of mesotibiae of (g) *Choerorrhinoides flavisetosus* and (h) *C. marshalli*.

Sumay, in cultivated hedge of hibiscus, Oct. 31, Swezey; one, Fullaway labeled "Guam Island."

This is a puzzling, variable, difficult species to describe. It is allied to *T. vulgaris* which it resembles in size, shape, and coloring, but it can be separated from that species by its much less convex eyes. Some specimens might be separated from small, abnormal specimens of *T. inusitata*, with difficulty but most examples are much smaller than those of *T. inusitata* and, together with the characters mentioned in the key, can be readily separated.

This species varies greatly in size, shape, color, color pattern and structure. Two extreme individuals might almost be described as two species if found separately and if no series of specimens showing intergradation of details were available.

In the National Museum material is a series of specimens which appear to be distinct from *T. convexa*. However, I have been unable to find satisfactory characters by which to separate them and have left them unnamed.

9. *Trigonops vulgaris*, new species (pl. 1, G; fig. 1, b).

Derm dark reddish brown to black; scaling variable, basically brownish gray to grayish brown, often with some dark brown scaling, prothorax usually with lateral scaling paler and often with a pale median vitta, with at least a patch of dark scales in front of elytral intervals 2 and 3; elytra usually with a broad V-shaped fascia of paler scales.

Head with the small punctures almost all concealed by dense scaling, usually with a small bare spot, or short bare vitta adjacent to apex of interocular suture; eyes quite strongly protuberant, subhemispherical, abruptly interrupting lateral cephalic outline, obviously shorter than distance between them. *Rostrum* with area between transrostral carina and basal suture normally flat or but slightly longitudinally convex and slightly or distinctly depressed below level of transrostral carina, distance between carina and basal suture obviously shorter than narrowest interocular breadth, with or without a trace of a median carina; apical declivitous part finely to coarsely punctate, squamae scattered except for usual condensation at base. *Antennae* with scape longer than seven funicular segments, setae usually, but not always, conspicuously slanting away from derm; funicular segments as follows in length: (1, 1.3) (2, 1.2) (3, 0.9) (4, 5, 6, and 7, 0.8); club as long as three preceding funicular segments, its first segment a third or a fourth longer than second. *Prothorax* slightly broader than long, broadest at about middle and rather evenly arcuate on sides; disk closely set with moderately large punctures, interstices narrower or broader than punctures and densely squamose, setae inserted at outer edges of punctures, transversely placed, usually quite closely appressed and extending across their punctures. *Elytra* about three fourths as broad as long, twice as long as prothorax, broadest somewhat before middle, broadly arcuate on sides to about apical third thence strongly narrowed to apex; striae well defined throughout, discal punctures often preceded by small tubercles near base; intervals flat to slightly convex on disk, densely squamose, scales finely to rather coarsely reticulate, rounded or angular, flat, closely appressed to derm, discal setae usually quite conspicuous and slanting steeply away from derm, but in some individuals much shorter, decumbent and not conspicuous, normally longer and more erect on declivity, often with a feeble sutural fascicle on declivity. *Legs* with hind femora reaching to about middle of fifth ventrite in female and about to apex in male, setae usually slanting away from derm, especially along lower edge of shaft, but often rather closely appressed dorsally; hind tibial setae bristling. *Sternum* with prosternum one half as long between fore margin and coxal cavity as between cavity and hind margin, intercoxal process one fourth to one third as broad as a fore coxa, coarsely punctate, densely squamose; mesosternum with side pieces, excluding bare space adjacent to coxae, densely

squamose; metasternum more than three fourths to about as long between mid and hind coxae as breadth of a mesocoxa, densely, moderately coarsely punctate, setae slanting steeply. *Venter* with first ventrite mostly or entirely free from scales down middle in both sexes, punctate as metasternum, tumid in female, depressed or impressed in male; second ventrite free from scales at middle of base only; ventrites 3 and 4 punctate, setose and sometimes squamose from side to side; ventrite 5 densely punctate and setose, usually with scattered squamae. Length, 4-5.5 mm.; breadth, 2-3 mm.

Holotype male, Machanao, Nov. 25, 1936, Swezey; allotype female, same locality, from *Piper guahamense*, June 4, Swezey; and the following paratypes: 10 specimens with the same data as the allotype, three with same data but from "spiny amaranth", five with same data but from *Ipomoea pes-caprae*, two with same data but one labeled "ex *Ipomoea* sp.", the other "on *Amaranthus spinosus*", one taken at same locality in miscellaneous sweeping, June 2, Swezey; four specimens, Dededo, from *Ficus* sp. (*hodda*), Aug. 7, Swezey, one from banana, the other from *Ipomoea pes-caprae*, one at same place, May 11, Usinger; five, Yigo, from *Terminalia*, Nov. 13, Swezey; two, Barrigada, from *Piper*, July 22, Swezey; two, Upi Trail, May 5, one by Swezey from fence, one by Bryan; one, Talofofo, Nov. 18, Swezey; four from "Island Guam", Fullaway. The following specimens are from the National Museum: six, from *Piper guahamense*, Aug. 15, 1937, Oakley, no. 134, 37-26120; seven, from *Vigna sinensis*, Sept. 30, 1937, Oakley no. 155, 37-26126; one specimen taken by Fullaway.

The strongly convex, protuberant eyes will serve to distinguish this species from its ally, *T. convexa*.

SUBFAMILY APIONINAE

TRIBE EURHYNCHINI

Genus CYLAS Latreille, 1802

10. *Cylas formicarius* (Fabricius) (pl. 6, D).

Brentus formicarius Fabricius, Ent. Syst., Suppl., 74, 1798.

Cylas turcipennis Boheman, in Schoenher's Gen. Spec. Curc. 1:369, 1833.

The color-form *elegantulus* (Summers) with steel-blue elytra, red legs, antennae, prothorax and mesothorax was taken as follows: four from Piti, one, May 10, 1936, Usinger; one, from sweet-potato vines, Nov. 17, Swezey; and two swept from morning-glory vine on sugar cane, Sept. 1, Swezey.

This species is a well-known tropicopolitan pest of sweet potatoes.

SUBFAMILY ANTHONOMINAE

Two species of Anthonominae were procured on Guam. Each is new and belongs to a different genus. The genera, one of which is new, may be distinguished by the following synoptic table:

KEY TO THE GENERA OF ANTHONOMINAE OF GUAM

1. Scrobes straight and lateral throughout, not at all oblique near the antennae: prosternum entire and not canaliculate before the coxae..... *Usingerius*.
2. Scrobes passing rapidly and obliquely downward to the venter of the rostrum, ventral in the posterior half; prosternum broadly canaliculate before the coxae..... *Amblycnemus*.

Genus **USINGERIUS**, new genus

Head subglobular, interocular area only about one half as broad as base of rostrum; eyes anterior, their fore margins at base of rostrum, large, coarsely faceted, strongly convex, separated beneath by breadth of rostrum. *Rostrum* slender and elongate, longer than prothorax in both sexes; antennae inserted just beyond middle in female, and within apical third in male; scrobes lateral, extending to eyes; mandibles dentate and decussate. *Antennae* with scape very slender, filiform, rather abruptly but not strongly clavate at the apex, reaching to eyes in both sexes, obviously longer than funicle; funicle only 6-segmented, only first segment distinctly elongated; club 4-segmented, not strongly compacted. *Scutellum* well developed, pubescent. *Elytra* broadly ovate, distinctly broader at subrectangular humeri than base of prothorax; ten striate, tenth stria complete; without posterior calli; each elytron individually rounded at apex. *Wings* functional. *Legs* rather stout; femora stout, strongly but not abruptly clavate, each armed with a large tooth at distal third, hind pair reaching to or slightly beyond hind margin of fourth ventrite; tibiae slightly compressed, slightly sinuous in outline, with a fine dorsal carina, without a distinct apical mucro, but with a minute vestige of one on hind tibiae of male; tarsi with segment 2 about as long as 1, trapezoidal, 3 about as long as 2, about twice as broad as long, deeply bilobed, 4 projecting for about half its length beyond apex of 3, claws deeply and strongly cleft. *Sternum* with prosternum plain before globose coxae, distance between fore margin and coxae about equal to that between fore and mid coxae, fore coxae practically contiguous, cavities extremely narrowly separated, almost confluent; mesosternum with intercoxal process sloping strongly ventro-caudad, narrowing posteriorly, roughly subtriangular, its apex about half as broad as a coxa; side pieces distinct; metasternum between mid and hind coxae about as long as breadth of a mesocoxa, episternum broad, suture distinct. *Venter* with intercoxal process strongly convex, about as broad as length of a coxa at trochanter; coxae reaching to metepisterna only; ventrites 1 and 2 fused, but suture not obliterated; five ventrites subequal in length along a line behind trochanters.

Genotype: *Usingerius maculatus*, new species.

This is a rather aberrant genus because of its lack of distinct apical mucrones on the tibiae. It has, in part, this character together with the 6-segmented funicle in common with *Amblycnemus*, but the genera are not allied. These two characters in combination with the cleft claws, strongly toothed femora, structure of the head, rostrum and venter will adequately distinguish the genus. The head, rostrum, and antennae recall *Nanophyes*; but on that genus, in addition to other differences, the claws are connate and not cleft and the tibiae are mucronate; it belongs to a different subfamily.

I dedicate this genus to my friend Dr. R. L. Usinger in recognition of his researches in Guam.

11. **Usingerius maculatus**, new species (pl. 6, A, B).

Derm pale to dark reddish brown, appendages usually mostly yellowish but often suffused with black; rather densely clothed with squamules, cephalic vestiture golden;

pronotum either with entirely golden and pale yellow vestiture or variably suffused with dark-colored squamules; elytra subject to great variation in color pattern of vestiture, variably marked with areas of golden, pale yellow, whitish and dark brown squamules; scutellum with dense squamules and paler than its surrounding area; vestiture of legs and underside white to yellowish.

Head with crown coarsely reticulate, finely and densely punctate; interocular area about one fourth as broad as an eye measured from front, derm concealed by vestiture; eyes quite prominently protuberant. *Rostrum* gradually and slightly widened from base to apex, apex only slightly broader than base, one third longer than pronotum in male, one and three fifths as long in female, gently arcuate from base to apex; antennae inserted slightly beyond middle in female, slightly in front of apical third in male; with two finely punctate striae on either side above scrobe from base to antennae in female, otherwise shiny and impunctate dorsally; these striae much more coarsely punctate in male, their intervals appearing as carinae, and with prostrate setae to antennae, otherwise finely punctate. *Antennae* with club of scape subequal in size and shape to first funicular segment; funicle with first segment as long as 2 plus 3, half as broad as long at rounded apex, 2 almost as long as 3 plus 4, 3 to 6 subequal; club as long as preceding five funicular segments, constrictions and sutures between the three basal segments quite distinct. *Prothorax* much broader than long (8.5 to 7.4), broadest just in front of base, base with a distinct prescutellar lobe, sides broadly rounded to apical fourth, thence conspicuously constricted, constriction not distinctly impressed across dorsum; densely set with small, coarse punctures; squamules prostrate, directed anteriorly. *Elytra* five eighths as broad as long, three times as long as prothorax; dorsal contour slightly impressed at basal third, base subtruncate between scutellar emargination and rounded humeri, subparallel on sides to about middle thence broadly rounded to apices; striae well marked throughout, the punctures slightly broader than their striae; intervals slightly convex, more strongly so laterad and caudad, squamules prostrate, those along median lines directed straight back, those on sides directed obliquely inward and backward. *Legs* rather loosely clothed with rather shaggy hair, with femoral tooth large, triangular, as high along outer edge as breadth of apex of a tibia; tarsi with inner process of each claw reaching to about apical fourth of claw. *Sternum* densely clothed with hair; with mesosternal process slightly protuberant; metasternum only slightly impressed in female, deeply canaliculately impressed down middle in male. *Venter* with first ventrite but slightly depressed in female, but with canalication very conspicuously continued from metasternum through second ventrite in male, canaliculate area almost free from hair, but with long, erect, curved hair along sides, more or less arched across canal; hair suberect or erect down middle of all ventrites in male, but mostly decumbent or slightly inclined in female; ventrites minutely punctate throughout. *Pygidium* hidden in female, usually broadly exposed in male and in that sex coarsely and densely punctate and with a slightly raised apical area. Length, 2-2.5 mm.; breadth, 1.2-1.3 mm.

Holotype male, Inarajan, May 7, 1936, Swezey; allotype female, same place and time, Usinger; and following five paratypes: two, same data as allotype; two, Piti, from *Pithecolobium*, May 2, Usinger; and one, at Sumay Road, from mangrove swamp, June 23, Usinger.

No two of the specimens have identical color patterns, but the species has a distinct, easily recognized facies.

Genus AMBLYCNEMUS, Marshall, 1921

The new species of this genus described here differs rather radically from the genotype (*Amblycnemus stevensoni* Marshall, Insects of Samoa 4(5):226, fig. 6, 1921) in having the femora strongly toothed. It has, however, the other

peculiar characters of *Amblycnemus* and is, therefore, placed in that genus; I have other new species at hand which also have toothed femora.

In the original description of the genus, the statement is made that one of the most aberrant characters of the genus was the fact that the tibiae completely lacked terminal mucrones. In specimens of the genotype at hand the tibiae of the females have no traces of apical tibial mucrones; the males, however, have the mid and hind tibiae distinctly mucronate at the inner apical angles. In the new Guam species, this situation is duplicated: the males have a prominent mucro at the inner apical angles of the mid and hind tibiae, and the females have no trace of tibial mucrones.

I have before me other new species of the genus, from Fiji and the Palau and Caroline Islands. Many new species will ultimately be described from the vast area between Samoa and Guam.

12. *Amblycnemus dentipes*, new species (pl. 6, F.).

Derm black, with antennae, apices of tibiae and tarsi yellowish; apex of pronotum and occasionally a variable part of disk yellowish; elytra with three variable, irregular, entire or broken transverse yellow fasciae, one at base, one before, and one just behind middle, apex also often yellowish, derm varying from mostly black with but small areas of yellow to mostly yellow with small areas of black; vestiture white or pale yellow.

Head with crown coarsely reticulate, minutely punctate, rather loosely and evenly clothed with prostrate anteriorly directed squamiform setae; front with a row of curved, dorsally directed squamules along inner margins of eyes, slightly more than half breadth of an eye, measured from the front. *Rostrum* in male one fifth longer than pronotum, coarsely reticulate throughout, with three prominent striae on either side between median line and scrobes from base to near antennae bearing coarse, curved dorsally or basally inclined squamules; female with rostrum almost a third longer than pronotum, finely alutaceous and quite shiny, lateral striae, excepting one next to scrobe, finer and bearing shorter, finer, much less conspicuous setae. *Antennae* inserted at apical fifth of rostrum in male, apical fourth in female; funicle with the first segment as long as 2 plus about half of 3, 2 not quite as long as 3 plus 4, 4 longer than 5, 5 and 6 subequal, submoniliform; club about as long as preceding four funicular segments. *Prothorax* about one fifth broader than long, broadest at about middle, strongly rounded on sides in basal two thirds then strongly constricted, constriction shallowly impressed across dorsum, apex truncate dorsally, oblique laterally, base almost truncate, but very feebly concave on either side of middle; densely and coarsely punctate throughout, interstices obviously narrower than punctures; with scattered, anteriorly directed, decumbent squamules interspersed with fine hairlike setae, squamules coarser near base. *Scutellum* rounded, convex, bare, dull. *Elytra* about two thirds as broad as long, three times as long as prothorax, gently arcuate in longitudinal dorsal outline, base shallowly bisinuate, subparallel-sided from roundly rectangular humeri to beyond middle, conjointly and broadly rounded at apex; striae broad and deep, their punctures subquadrate, tenth stria terminating above metacoxa; intervals distinctly convex, each with a row of conspicuous, posteriorly directed, curved, decumbent squamiform setae. *Legs* with the femora each with a long, narrow, sharp, strongly developed, conspicuous tooth near distal third, coarsely reticulate, coarsely but indistinctly punctate, punctures bearing conspicuous, curved, decumbent setae; all tibiae unarmed at their apices in female, mid and hind tibiae armed at inner apical angle with a distinct mucro in male. *Sternum* with prosternal canal with low, inconspicuous side walls, cavity, as well as median post coxal piece, densely clothed with compound, feathery scales, coxae separated by about breadth of apex of antennal scape; intercoxal process of mesosternum almost vertical at fore edge of coxae, coxae not quite separated by as much as breadth of a coxa; metasternum coarsely and densely punctate on sides, coarsely punctate along

coxae and hind margin below, with disk impunctate, punctures bearing long curved setae, sclerite about as long between mid and hind coxae as breadth of a mesocoxa, intercoxal process between the mesocoxae extending almost to anterior edge of coxae. *Venter* coarsely reticulate, with scattered, shallow punctures bearing decumbent setae; first ventrite irregularly depressed at base and apex in female, broadly and continuously concave in male. Length, 1.7-1.8 mm.; breadth, 0.7-0.8 mm.

Holotype male, Inarajan, May 7, 1936, Usinger; allotype female, Mt. Alifan, from *Asplenium nidus*, May 26, Swezey; and the following paratypes: one with identical data as the holotype; one, Paasan, June 15, Usinger; two, Machanao, June 30, Usinger; and one, Dededo, from *Ochrosia*, Sept. 11, Swezey.

This species is smaller, narrower, differently colored, and otherwise quite distinct from the only other described species of the genus. There is no other Guam weevil with which it might be confused.

SUBFAMILY BARINAE

Genus ATHESAPEUTA Faust, 1894

This genus contains the only Guam representative of the subfamily. Most of the known species of *Athesapeuta* have been described from India, others are recorded from Africa, Madagascar, China, and the Netherlands Indies. One species has been described from the Philippines, but probably numerous species occur there as well as in the islands to the west, south and east.

The Philippines species has been found of some use in the control of nut grass (*Cyperus rotundus*) and has been introduced into Hawaii and Fiji as an aid to the control of that sedge in sugar-cane fields. The new species described here is also a sedge eater.

13. *Athesapeuta ulvae*, new species (pl. 6, C).

Derm dark reddish brown to black, appendages reddish, pronotum usually quite shiny black on disk, elytra black down middle in non-squamose areas but reddish on squamose sides beyond fourth or fifth intervals at least, sternum usually more reddish than venter; squamae white or pale yellow, forming following dorsal patterns: sides of pronotum densely clothed from base to apex beyond fifth or sixth elytral intervals, usually with a few scales at base of interval 2, a dense patch at base of interval 3 followed a short distance by loose scaling, a dense conspicuous patch of broader squamae over intervals 2-5 just before apical third, intervals 1-3, and sometimes 4 in part, otherwise bare of scales, excepting a few at apex only, outer intervals all with one or two rows of squamae from base to apex, most outstanding marks being patches of scales at bases of third intervals and those on either side behind middle.

Head with crown with minute, widely spaced punctures bearing minute setae, without scales; line of separation of head and rostrum shallowly impressed and not making an abrupt groove; with a patch of squamae along inner margin of eye. *Rostrum* measured from apex to top of eyes as long as pronotum plus scutellum in male, one fifth longer than pronotum in female, strongly arcuate, almost evenly and slightly expanded on sides from base to apex, laterally compressed at base, but becoming dorso-ventrally depressed beyond antennae; with fine punctures except on sides behind antennae, punctures arranged in three

lines above each scrobe. *Antennae* with first funicular segment as long as 2 plus 3 plus 4, almost four times as long as broad, 2 not quite as long as 3 plus 4, 3-7 each successively slightly shorter and more transverse; club about as long as preceding five funicular segments. *Prothorax* slightly broader than long (2.5:2.2), very slightly arcuate, almost straight on sides from base to about apical seventh, thence conspicuously constricted and narrowed to apex, constriction shallowly and broadly interrupting longitudinal dorsal outline which is otherwise gently convex and highest behind middle, apex sinuous, three fifths as broad as base; base rather strongly bisinuate; discal puncturation, on bare area, not at all coarse, punctures small, round, separated by interstices at least as broad as their diameters and bearing minute, hardly discernible punctures; puncturation coarse, dense and rough on squamose areas and laterally; squamae appressed, broad and spatulate. *Scutellum* usually triangular behind, bare, variably impressed. *Elytra* about six sevenths as broad as long, one and three fourths as long as prothorax, base strongly bisinuate, broadest at apices of poorly defined humeri, thence very slightly narrowed within apical third, thence broadly rounded to apex, without any subapical constriction or posterior calli; striae about a third as broad as intervals, their punctures indistinct behind middle but slightly indenting margins of intervals near base and on sides; intervals flat, quite shiny, their punctures minute in non-squamose areas and there bearing minute setae, arranged in one or two irregular lines, those bearing squamae coarser; squamae prostrate, spatulate, quite broad. *Legs* with femora closely set with punctures bearing prostrate, lanceolate, squamiform setae, edentate; tibiae with finer squamiform setae than femora, all edentate in middle, not carinate; uncini strongly developed, teeth at inner apical angles distinct. *Sternum* with prosternum coarsely and densely punctate, punctures bearing spatulate or subspatulate squamae, anterior transverse impression strong and deep; mesosternum coarsely and densely punctate and squamose, intercoxal process broader than a coxa; metasternum as long between mid and hind coxae as breadth of a mesocoxa, episternum densely squamose, punctures denser outside of coxae, smaller and bearing smaller setae between coxae. *Venter* with first ventrite distinctly flattened and slightly concave in male, tumid in female; entire venter rather densely punctate except along middle where punctures are smaller, fewer and bear finer setae, setae becoming broader and squamiform laterally. *Pygidium* coarsely and densely punctate, densely setose, subhemispherical in ventral outline and one third broader than long in male, longer in female. Length, 2-3 mm.; breadth, 1-1.6 mm.

Holotype male, Santa Rosa Peak, May 19, 1936, Usinger; allotype female, Mt. Alifan, May 26, Usinger; and the following paratypes: one from Piti, May 1, two from hills at Piti, June 6, ten from same place, July 13, four from same place, July 24, five from Piti, Aug. 1, ten from same place, Aug. 21. All the paratypes were swept by Swezey from sedges, and he also found larvae at the bases of sedge plants. One paratype labeled "Island Guam" and collected by Fullaway is from the National Museum material.

This species is closely allied to the Philippine *Athesapeuta cyperi* Marshall (Bull. Ent. Research 18:266, 1928), but that species may easily be distinguished from this by its much more coarsely and densely punctate pronotal disk, more coarsely punctate elytral striae and especially by the presence of a large tooth at about the middle of each fore tibia on the male.

SUBFAMILY ITHYPORINAE

A new genus including one new species represents this subfamily in Guam. The new genus belongs to a group of peculiar genera which include *Fergusonia* Lea of Australia, *Cranopoeus* Marshall and *Spanochelus* Marshall, the last two of which are abundantly represented at least among the islands from

Fiji to the Marquesas, but few of the species have been described. Other genera and species will undoubtedly be found to show that the group has a wide distribution in Australasia and probably also in Indo-Malaya.

It is worthwhile to note here that *Fergusonia* Lea is a homonym; I suggest the following change:

***Fergusoniella*, new name.**

Fergusonia Lea, Soc. Ent. Belg., Mem. 18:125, 1911; homonym, preoccupied by the amphibian *Fergusonia* Hoffmann, in Bronn's, Die Klassen und Ordnungen des Thier-Reichs wissenschaftlich dargestellt in Wort und Bild 6(2):629, 1878.

Genus SWEZEYELLA, new genus

Head globular, immersed in prothorax, narrowly exposed from above; eyes oval, separated by breadth of rostrum above and below. *Rostrum* almost straight, about as long as pronotum in male, about one third longer in female; antennae inserted at about the apical third in female, slightly beyond in male; scrobes passing rapidly ventrally, entirely ventral behind half distance between eyes and their origin, not coalescing at base of rostrum and there shallow; mandibles decussate, strongly toothed. *Antennae* with scape slender, almost reaching eye, about as long as funicle plus club; funicle only 5-segmented, first segment longer than second, second longer than third; club evidently 3-segmented, basal segment making up at least half its mass. *Prothorax* transverse; postocular lobes feebly developed and with short vibrissae. *Scutellum* not visible. *Elytra* short and rather subquadrate, conspicuously broader across humeri than base of prothorax; without posterior calli; with ten striae, the tenth abbreviated. *Wings* functional. *Legs* with femora moderately clavate, edentate, hind pair reaching beyond apex of fourth ventrite; tibiae compressed, stout, not carinate, strongly uncinate at apex; tarsi with third segment much longer and broader than transverse second segment, deeply and broadly bilobed; fourth segment extending only to apices of setae on segment 3 and bearing only a single claw. *Sternum* with prosternum with its apical margin deeply, roundly emarginate, broadly and shallowly concave in front of contiguous coxae; mesosternum with intercoxal process sloping cephalo-dorsad, plain, about half as broad as a coxa, mesepimeron only a fraction as large as mesepisternum; metasternum about as long between mid and hind coxae as breadth of a metacoxa, metepisternal suture usually partly or completely obliterated, reaching first ventrite above coxal cavity. *Venter* with intercoxal process of first ventrite broadly rounded; ventrite fully as long along median line as segments 2 plus 3 plus 4, truncate behind, ventrite 2 somewhat longer than 3, 3 and 4 subequal, 5 about as long as 3 plus 4, sutures between segments deep and straight. *Pygidium* with apex exposed from above.

Genotype: *Swezeyella muscosa*, new species.

This genus is most closely allied to *Spanochelus* Marshall [Insects of Samoa 4(5):278, fig. 10, 1931]. It differs from that genus, however, in its unusual 5-segmented antennal funicle. Its 5-segmented funicle and single tarsal claws constitute a pair of characters rarely found among weevils of this and allied subfamilies. *Spanochelus* Marshall and *Fergusoniella* have single tarsal claws, but their 7- and 6-segmented funicles, respectively, in addition to other characters, will readily separate them from this genus.

I take much pleasure in naming this genus for Mr. O. H. Swezey as a token of friendship and appreciation and in recognition of his careful work in Guam.

14. *Swezeyella muscosa*, new species (pl. 6, E).

Derm reddish brown to black, for the most part densely clothed with rather short, coarse, somewhat matted hair, usually with a waxy exudation obscuring derm and vestiture; vestiture rather uniformly dirty gray above, or with elytra and pronotum with small patches of white; normally with a conspicuous basal patch of dense white hair from scutellum across first three intervals; setae white, and showing as white flecks even when encrustation is heavy.

Head with coarsely reticulate, minutely punctate derm hidden by dense pile, frons with a small median fovea, interocular area as broad as base of rostrum. *Rostrum* as long as pronotum in male, one third longer in female, about as high as broad behind antennae, evenly and slightly expanded from base to apex on sides; densely punctate from base to apex, more coarsely so in male; densely setose to antennae in male, only near base in female. *Antennae* with scape rather evenly enlarged distally and not at all abruptly clavate; funicular segment 1 almost as long as 2 plus 3, 2 as long as 3 plus 4, 3-5 subequal in length and successively slightly broader; club as long as preceding four funicular segments, its apical part sharply pointed and about three fourths as long as basal segment. *Prothorax* two sevenths broader than long (3.5:2.5), broadest at basal third; strongly rounded on sides to basal third, thence strongly constricted, constriction continued broadly and deeply across dorsum and causing an angulation in longitudinal dorsal outline which is strongly convex from there to base; apex slightly arcuate dorsally, truncate laterally; median line impressed as a shallow sulcus on disk; puncturation obscure; vestiture dense, directed forward, normally with some subspatulate setae on either side of median line in basal third, others following a transverse line across basal third to side where they are more numerous, and with numerous similar setae in and beyond subapical constriction, forming a row near apex. *Elytra* but slightly longer than broad, broadest across prominent subrectangular humeri, rather strongly bisinuate at base; denser vestiture across first three intervals usually making scutellar area appear broadly V-shaped, almost straight and parallel-sided from behind humeri to apical third, thence broadly, roundly narrowing to apex; discal striae about one third as broad as intervals at middle, somewhat coarser toward base, punctures little evident except near base, first stria evidently deeper and coarser than others in the basal fourth, stria 10 not extending beyond apex of metepisternum, striae 7 and 8 not reaching base but ending at humeral calli; intervals slightly convex, vestiture dense, prostrate, each with a row of widely spaced, semi-erect, subspatulate setae, in fresh, non-encrusted specimens the pile around bases of setae also white. *Legs* with vestiture dense; tibiae appearing expanded toward apices and with scattered, inclined, stout setae; tarsi with first segment about as broad as long, somewhat longer than second, second almost twice as broad as long and about half as long as third which is slightly broader than long. *Sternum* with intercoxal process of mesosternum narrowing behind, its apex not quite half as broad as a mesocoxa; metasternum with dense vestiture. *Venter* hirsute; with first ventrite divided by a suture, running from its basal third on sides to intercoxal process, deep behind coxae, shallow across the intercoxal process, slightly depressed in middle in male, strongly tumid in female; ventrite 5 plain, but more coarsely sculptured than others. *Pygidium* narrowly exposed, gently arcuate. Length, 1.5-2.0 mm.; breadth, 0.8-1.2 mm.

Holotype male, Ritidian Point, June 2, 1936, Usinger; allotype female, Mt. Chachao, May 16, Usinger. The following paratypes collected by Swezey: one, Santa Rosa Peak, May 19; one, plateau at Talofofo, June 17; one, Piti, from *Glochidion*, Aug. 18; two, from same host and place, Sept. 21, and one with some data but taken Oct. 12.

No difficulty will be had in recognizing this distinct little member of Guam fauna because of its unique structural details.

SUBFAMILY CRYPTORHYNCHINAE

KEY TO THE GUAM GENERA

- | | | |
|-------|--|------------------------------|
| 1. | Scutellum visible; metepisternum distinct throughout its length..... | 2 |
| | Scutellum hidden; metepisternum partially or entirely hidden, never distinctly visible and broadly exposed throughout its length..... | 6 |
| 2(1). | Pectoral canal without any side walls, ending in the metasternum, mesosternal receptacle open or nearly so and densely squamose..... | <i>Deretiosus</i> . |
| | Pectoral canal ending in the mesosternum or prosternum, the mesosternal (or prosternal) receptacle usually distinctly cavernous and with distinct elevated side walls..... | 3 |
| 3(2). | Femora armed with a small or large tooth below..... | 4 |
| | Femora edentate | 5 |
| 4(3). | Pectoral canal ending in the prosternum, densely squamose throughout; prosternal receptacle with the high side walls contiguous to the coxae; eyes closely approximated below..... | <i>Camptorhinus</i> . |
| | Pectoral canal ending in the mesosternum, not squamose between the coxae; eyes very widely separated below..... | <i>Oreda</i> . |
| 5(3). | Metasternum between the mid and hind coxae about twice as long as the breadth of a mesocoxa; femora not grooved for the reception of the tibiae; dorsum with fascicles and spongy scaling; body subparallel-sided | <i>Menectetorus</i> . |
| | Metasternum between the mid and hind coxae not as long as the breadth of a mesocoxa; femora shallowly grooved for the reception of the tibiae; dorsal scaling smooth, not at all fasciculate or spongy; body subrhomboidal | <i>Neoampagia</i> . |
| 6(1). | Femora minutely or distinctly toothed (examine fore pair carefully); pectoral canal in part or entirely squamose..... | 7 |
| | Femora edentate; pectoral canal bare..... | 8 |
| 7(6). | Form subquadrate; pectoral canal squamose throughout; mesocoxae separated by the breadth of a coxa; metasternum shorter between mid and hind coxae than the breadth of the base of the femora..... | <i>Anaballus</i> . |
| | Form elongate; pectoral canal squamose only in front of the coxae; mesocoxae separated by only about half the breadth of a coxa; metasternum longer between the mid and hind coxae than the base of the femora.... | <i>Eusceps</i> . |
| 8(6). | Pectoral canal terminating between the fore and mid coxae, always before the mesocoxae | <i>Acalles</i> . |
| | Pectoral canal terminating between the mesocoxae, distinctly behind their fore margins | 9 |
| 9(8). | Dorsum conspicuously multituberculate..... | <i>Daealus</i> . |
| | Dorsum not tuberculate; minute species, Guam species less than 2 mm. long | <i>Microcryptorhynchus</i> . |

Genus DERETIOSUS Pascoe, 1871

This sophrorhine genus contains many species and is distributed from New Guinea eastward as far as Samoa, westward to the Philippines, Java, and Sumatra and south into Australia. One other Micronesian species has been described; it is *Deretiosus concolor* Zimmerman, 1938, from Ponape, Caroline Islands; and I have recorded the New Guinean *D. subaridus* Lea, 1928 from Truk, Caroline Islands.

15. *Deretiosus ficae*, new species (pl. 3, A).

Derm reddish brown to black, almost everywhere concealed by dense scaling; scaling dirty gray or muddy colored in old abraded specimens, but as follows in fresh, clean examples: head basically fawn colored, becoming paler dorsally, sometimes with some black spots, with an outstanding basal patch of white scales at top of eye; prothorax almost entirely white with setae and fascicles fawn colored, or paler or darker, with discal area from base to median fascicles fawn colored and black or almost or entirely black, apex sometimes mostly black on either side of median line beyond median fascicles; elytra mostly fawn colored and white with at least the scutellum, bases of first three intervals and third interval to first fascicle black, or with first three intervals almost entirely black to middle, with a black patch at base of fifth interval, and with black extending over part of fourth and fifth intervals at middle or extending to sides and there irregularly clouded with black, and with variations between these extremes in color, the basal half, or somewhat more than half of the elytra, dark, the apical part distinctly paler; legs spotted and ringed with fawn and brown on a pale or white background; scaling below mostly white, but with last three ventrites mostly dark.

Head with scaling on crown spongy and in rosettes, spatulate setae hardly projecting above squamae; front flattened or shallowly concave, with large, round, flat, prostrate scales, with a conspicuous cluster of long, stout, erect, spatulate setae along basal half of inner margins of eyes. *Rostrum* at most finely carinate in male, with one median and two lateral carinae; punctate throughout in both sexes. *Antennae* with first funicular segment as long as 2, 2 as long as 3 plus more than half of 4, 3 hardly longer than 4, 5-7 moniliform and each successively broader; club ovate, as long as three preceding funicular segments. *Prothorax* one quarter broader than long, almost straightly, hardly expanded on sides from base almost to apical third, thence abruptly angulate, forming nearly a right angle, and deeply constricted, distance across constriction distinctly less than three fourths breadth across dorsum at angulations, apex almost hemispherical beyond lateral emarginations, median line even and hardly convex longitudinally in basal three fourths; scales large, rounded, flat; with a well-developed fascicle on either side of median line, bordering a line drawn between fore edges of lateral angulations, and a well-developed apical fascicle on either side of median line, the lateral angulations with a few stout setae but not fasciculate, with a few scattered, stout, erect setae behind median fascicles, two or three between them and lateral angulations, and scattered ones on apical fourth; lateral expansions flange-like and quite strongly overhanging sides. *Scutellum* quite strongly protuberant. *Elytra* five eighths as broad as long, two and two thirds as long as prothorax; intervals 1 and 2 each with a row of stout, erect setae arising from small pustules, 3 with a low basal fascicle that reaches its summit and extends to a distance from base equal to that between base of prothorax and fore margin of a median fascicle, and with two small fascicles between this and beginning of pale coloration at about or slightly behind middle, or with interval more or less continuously raised there, otherwise with a row of erect setae arising from pustules, 4 with pustules and setae only, 5 with a basal fasciculate callus similar to but shorter and smaller than that on 3, with a small callus on a line between first two calli on 3 and with two or three irregular or fragmented calli behind this, the last at apex of interval, first usually quite elongate, but variable, 6 with pustules and setae, 7 bearing conspicuous subrectangular humeral callus which is followed by stout setae bearing pustules, 8 rather strongly elevated above first two ventrites, 9 elevated above metasternum. *Legs* with femoral teeth strong and triangular. *Sternum* with metasternal receptacle not overhanging, very steep and terminating at about hind margin of mesocoxae in male, concave and terminating at about half way between mid and hind coxae in female. *Venter* with setae decumbent on first two ventrites, first ventrite hardly differing in sexes; fifth ventrite coarsely punctate, almost or quite bare at apex, broadly convex in male, roundly pointed in female. Length, 5-7 mm.; breadth, 2.5-3.5 mm.

Holotype male, reared by Swezey from a pupa found in the bark of dead “small leaf” *Ficus* at Yigo, Oct. 18, 1936; allotype female taken at Barrigada,

June 14, Usinger; and the following paratypes collected by Swezey: eight with identical data as the holotype, eight from *Ficus* at Machanao, June 30, and two from *Ficus* at Agat, Aug. 15.

This is quite a distinct species because of its color pattern and position and number of dorsal fascicles and calli. It does not closely resemble any of the other described species of the genus.

Genus **CAMPTORHINUS** Schoenherr, 1826

Camptorhinus Schoenherr, Cerc. disp. method., 283, 1826.

Rhinodes Sturm, Cat. Ins. Samml., 190, 1826.

16. **Camptorhinus dorsalis** (Boisduval) (pl. 2, B).

Cryptorhynchus dorsalis Boisduval, Voy. Astrolabe 2:434, 1835.

Camptorhinus dorsalis (Boisduval) Boheman, in Schoenherr's Gen. Spec. Cerc. 4(1): 177, 1837.

Camptorhinus artensis Montrouzier, Soc. Ent. France, Ann. III, 8:825, 1860.

This elongate, subparallel-sided, densely squamose species with its coarsely punctate elytral striae, its hind femora projecting beyond the apices of the elytra, and its prosternum developed into a strong receptacle behind the coxae is easily recognized. It varies greatly in size; the extremes in length in the specimens at hand are 3.5-8.0 mm.

The following specimens from Guam are before me: two, Agana, May 8, 1936, Bryan; 9 labeled "Island Guam", Fullaway; and six taken "in dead tree", July 14, 1937 (by Oakley ?), no. 37-24077. There are also five specimens among the National Museum material that were collected by C. Bignell in 1917 at Fulakora, Solomon Islands. In Bishop Museum there is a large series of specimens taken by J. A. Kusche at Guadalcanar, Solomon Islands, in January 1921.

This species has evidently not been listed from either Guam or the Solomons heretofore. It is widespread, however, and is a common insect along the east coast of Australia.

Genus **OREDA** White, 1846

The discovery of a new species of this genus on Guam is of considerable zoogeographic interest. The genotype and one other species have been recorded from New Zealand, one species, *O. dubia*, was described by Lea from New South Wales (although this species is listed in the index to Coleopterorum Catalogus part 151, the name was omitted from the list on page 58), and a fourth species was described by Heller from New Caledonia. There are now five known species of the genus. Further collecting, or the study of existing collections, from the intervening areas should reveal other species.

17. *Oreda maculata*, new species (pl. 2, F).

Derm black, quite shiny where exposed; densely squamose above and below, scaling colored as follows: head and rostrum with white or yellowish and black scales intermixed; prothorax black with a patch of yellowish or white scales on either side of apex, scales in discal fovea pale, with a pale patch on each side in line with discal foveae, a short pale prescutellar vitta and with pale scaling at base at least in front of elytral intervals 4 and 5; elytra mostly black but with a scattering of small patches or specks of white or yellowish and with a large, conspicuous, pale, irregular macula consisting of brownish yellow scales beginning at the base on the first two intervals and extending to near middle, but broadening out and extending laterally over intervals 3 to 5 behind their basal fascicles or calli and usually with a distinct pale patch at apex of interval 5; legs with femora with a pale band at base and usually a pale, dorsal, subapical patch and flecked with pale, but otherwise black, tibiae with apical half or third mostly pale, otherwise black; scaling below usually predominantly white, but with a variable amount of black scaling.

Head densely punctured, derm concealed by scaling; interocular area slightly expanded from top of eyes to base of rostrum, coarsely punctate, squamae erect or suberect; inner and dorsal margins of eyes making almost right angles (when viewed from front). *Rostrum* coarsely and densely sculptured and densely squamose almost to apex in male, only at base in female; not carinate. *Antennae* with scape about as long as first five funicular segments; funicle with segment 1 as long as 2 plus three fourths of 3, 2 as long as 3 plus half of 4, 3 slightly longer than 4, 4-7 moniliform and each successively broader, 7 transverse; club ovate, about twice as long as broad and not quite as long as preceding six funicular segments. *Prothorax* slightly broader than long (4.5:4), broadest at middle, strongly rounded on sides in basal two thirds but almost straightly expanded in basal half, thence quite strongly constricted, constriction continued broadly across dorsum, base concave on either side of middle, the postero-lateral angles projecting back against elytral interval 6; puncturation coarse, deep, very dense, subconfluent, the interstices densely clothed with erect or suberect squamae; dorsum irregular, gibbose at base, median line deeply impressed across gibbose part in basal fourth, disk with a rounded, shallow fovea on either side of median line at middle. *Elytra* two thirds as broad as long, twice as long as prothorax, almost parallel-sided from base to between middle and two thirds, thence roundly narrowed to above apex of fourth ventrite and there distinctly constricted; apex slightly but distinctly emarginate; base strongly convex from scutellar emargination to fifth interval and there deeply emarginate, margin bare and appearing flange-like to fourth interval, humeri rounded and prominent; dorsum depressed on area covered by the pale macula; intervals three or four times as broad as striae, except at base where striae are coarser, third, fourth, and fifth elevated at base before pale macula, third and fifth elevated beyond macula to about apex of fifth; derm almost everywhere concealed by dense scaling. *Legs* densely sculptured and squamose; femora with a small but distinct ventral tooth near outer edge at distal fourth; tibiae with uncus well developed, tooth at inner apical angle distinct but small; hind tarsus with first segment not quite as long as 2 plus 3, 2 slightly longer than broad, 3 transverse, lobes rounded, 4 longer than 2 plus 3. *Sternum* with pectoral canal densely set with lanceolate squamae in prosternum, side wall of prosternal part slightly sinuous near fore margin, but not deeply incised, cavity terminating at fore margin of mesocoxae in male, slightly behind fore margin in female, receptacle with a median costa, which is developed into a tooth on male, from termination of canal to mesosternum; mesocoxae separated by slightly less than breadth of a mesocoxa, densely punctate, coxae reaching elytra. *Venter* with first ventrite roundly emarginate in middle behind, deeply and broadly concave and coarsely punctured and with erect squamae in male, flat, less coarsely punctate and with flat, prostrate, broadly lanceolate scales in female; 2 as long as 2 plus 3 in male, longer in female; 2-5 all densely clothed with broad, appressed scales. Length, 5-7 mm.; breadth, 2-3 mm.

Holotype male, allotype female, and four paratypes found at Machanao under bark of *Elaeocarpus*, June 30, 1936, Swezey; and one paratype from the National Museum material labeled "Island Guam" collected by Fullaway.

This black, subparallel-sided species with the large irregular elytral macula is most distinct from any other Guam weevils and can be easily recognized.

This species differs in particular from the genotype, *Oreda notata* White, in that it does not have the side walls of the pectoral canal deeply notched at the subapical constriction of the prothorax so that there appears to be a tooth there. Lea (Linn. Soc. New South Wales, Proc., 24: 523, 1899) in a key, used this character in a generic sense, but I doubt that it is of generic value. The small femoral teeth are quite similar to those on *Oreda notata*; the other characters of generic rank are quite in keeping with those of the genotype.

Genus **MENECTETORUS** Faust, 1894

Menectetorus Faust, Mus. Civ. stor. nat. Genova, Ann. 34: 284, 1894.

Pseudapries Lea, Soc. ent. Belg., Mem. 16: 182, 1908. (New synonym.)

The genus *Menectetorus* was described for the reception of a single species from Burma, and until now has remained monotypic. A cotype of the genotype (*M. luctuosus*) was included in some material sent to me for study from the National Museum by Mr. Buchanan. It is distinctly congeneric with typical species of *Pseudapries*, and that genus must fall as a synonym. *Menectetorus luctuosus* closely resembles the genotype of *Pseudapries*.

In Coleopterorum Catalogus (part 151, Cryptorrhynchinae, p. 70), Hustache has placed *Pseudapries* among the Colobodina in the Ithyporinae. The genus has nothing in common with the Ithyporinae and should be placed next to *Chaetectetus* in the Cryptorrhynchinae.

In 1909, Lea separated *Pseudapries* from *Chaetectetus* on the comparative length of the metasternum and first abdominal segment, the metasternum being longer along the median line than the first ventrite in *Pseudapries*, shorter in *Chaetectetus*. However, on the genotype of *Chaetectetus* (*C. bifasciatus*) the metasternum is fully as long or slightly longer than the first ventrite; a better character is: second ventrite much longer than 3 plus 4, almost as long as 3 plus 4 plus 5 = *Chaetectetus*; and, second ventrite shorter than 3 plus 4 = *Menectetorus*. Following the use of this character, it becomes necessary to transfer the Fijian and Samoan *Chaetectetus* to *Menectetorus* as follows:

Menectetorus tutuilae (Marshall), new combination.

Chaetectetus tutuilae Marshall, Insects of Samoa 4(5): 296, fig. 15, 1931.
Samoa.

Menectetorus vitiensis (Zimmerman), new combination.

Chaetectetus vitiensis Zimmerman, Haw. Ent. Soc., Proc. 9(3): 447,
fig. 1, 1937. Fiji.

All the members of this genus have very dense, spongy scaling; the elytra are usually more or less fasciculate and the pronotum has a number of large, conspicuous discal foveae.

Most of the species thus far described have been recorded from Australia, but one has been described from New Guinea, one from Fiji, one from Samoa, and the genotype from Burma. I have seen other species, however, that show that the genus also inhabits the Philippines and is well represented on the mainland of New Guinea.

18. Menectetorus setulosus (Boheman), new combination (pl. 3, B).

Cryptorhynchus setulosus Boheman, Eugenies Resa, Coleopt., 140, 1859.

Head with brown to dark brown scales, with a row of erect spatulate setae along inner margins of eyes and scattered on crown. *Rostrum* not carinate. *Prothorax* as long as broad, emarginate at sides just behind middle and at subapical constriction; disk with five foveae, three across a line drawn between lateral emarginations of subapical constriction and one on either side of median line on a line drawn between submedian lateral marginations; variable in coloration, but with the sides almost or quite white, median line usually white, base of disk to and sometimes including foveae darker to black, the apical half darker to black. *Scutellum* pale. *Elytra* three fifths as broad as long, two and one half times as long as prothorax; all intervals with a row of conspicuous, erect spatulate setae, 1 and 2 flat, about as broad as striae which are not impressed between punctures, 3, 5, and 7 elevated, 3 and 5 more than 7, in some places the setae more condensed; scaling mostly dark brown to black with patches of white and fawn-colored scales, with the most conspicuous marks consisting of a conspicuous oblique white fascia on each elytron that begins on interval 7 at about breadth of first three intervals from base and extends over third interval to a point about as far from base as breadth of an elytron. *Legs* with all femora edentate. *Sternum* and venter with white scaling. Length, 3-4 mm.; breadth, 1.25-1.75 mm.

Holotype female labeled "Guam" and "Kinb." in the collection of the Naturhistoriska Riksmuseum at Stockholm.

In addition to the holotype, the following specimens are before me: one, Yona "on dead Areca palm leaf", April 29, 1936, Bryan; seven, Barrigada, from dead *pago* (*Hibiscus tiliaceus*), June 12, Swezey; one, Machanao, from under bark of *Elaeocarpus*, June 30, Swezey; three, Barrigada, from under bark of *Intsia*, July 6, Swezey; two, Barrigada, under bark of *Intsia bijuga*, July 22, Swezey; two, Dededo, from under bark of *Hibiscus tiliaceus*, Sept. 7, Swezey; and eight at Yigo, from dead bark of *Elaeocarpus*, Oct. 18, Swezey.

The following specimens are from the National Museum material: three labeled "Island Guam" taken by Fullaway, six "in dead tree", July 14, 1937, Oakley, no. 37-24077, and 17 taken "on drying tree bark" by Oakley, Sept. 15, 1937, no. 140, 37-26124.

The brief description of the salient characters should enable one to recognize this species without much difficulty. It is quite a normal species of the genus.

Genus NEOAMPAGIA, new genus

Body subrhomboidal in lateral outline, strongly convex dorsally, densely squamose. *Head* with crown exposed from above; interocular area expanding from top to apex, narrowest part distinctly narrower than breadth of base of rostrum; eyes large, coarsely faceted, subcontinuous in outline with head. *Rostrum* slightly shorter to slightly longer than pronotum, slightly arcuate, depressed dorso-ventrally. *Antennae* inserted at or slightly beyond middle of rostrum, with scape reaching eye, about as long as funicle excluding club; first and second funicular segments each at least twice as long as any two of the following segments, subequal or 1 slightly longer than 2, 3-7 subequal; club stout, ovate, shorter than funicle. *Prothorax* subconical, strongly transverse, base slightly bisinuate; ocular lobes obtuse. *Scutellum* distinctly visible, but small. *Elytra* subcontinuous in lateral outline with prothorax, base distinctly bisinuate, humeri not prominent, striae fine, intervals broad. *Wings* completely developed for flight. *Legs* with femora sublinear, not clavate, shallowly grooved below, not toothed; tibiae angulate at base, otherwise almost straight, carinate, terminal uncus strongly developed, without a tooth at inner apical angle; tarsi with segment 1 elongate, 2 longer than broad, 3 broadly bilobed, 4 slender and projecting well beyond the apex of 3, claws small. *Sternum* with pectoral canal deep, terminating between the mesocoxae; mesosternal receptacle cavernous, the walls comparatively stout but only slightly projecting below level of metasternum, ends of side walls touching fore coxae, mesocoxae narrowly separated from fore coxae; metasternum distinctly narrower between mid and hind coxae than breadth of a mesocoxa; metepisterna distinct throughout, separating metacoxae from elytra and reaching first ventrite behind and there about two thirds as broad as base of a hind femur, distinct in front and separating at least basal half of mesepimera from elytra. *Venter* with first two ventrites fused but suture between them fine and distinct, not obliterated; first ventrite longer than 2 plus 3 along median line, intercoxal process broadly A-shaped, broader than length of ventrite 2 or length of the metasternum along median line, continuous in contour with second ventrite, not carinate or sulcate, ventrite 2 slightly longer than 2 plus 3, 2 and 3 equal; 5 as long as 2.

Genotype: *Neoampagia imitator*, new species.

At first sight the genotype of this genus appears to be a normal *Ampagia* Pascoe (Ent. Soc. London, Trans., 208-209, 1870), but when the legs and venter are examined the species seem referable to *Ampagioides* Zimmerman (1936). However, the genotype cannot be assigned to either of those genera for the following reasons: the metepisterna are distinct and entire and conspicuously separate the hind coxae from the elytra and the mesosternal receptacle hardly projects below the level of the metasternum instead of being prominent with very high walls that project to a level near or below that of the apices of the mesocoxae. Moreover, this genus differs from *Ampagia* in not having the hind femora broadly expanded and angulate and in not having a median area on the first ventrite bounded by impressed lines from the coxae to the apex. The genus also seems to be somewhat allied to *Alatidotasia** Lea (Deutsche Ent. Zeitschrift, 523, 1910), insofar as I can tell from descriptions alone. However that genus has a different type of mesosternal receptacle, the metacoxae are closer together, the body is glabrous except for isolated patches of squamae, and it is more closely allied to *Trigonopterus* Fauvel (Soc. Linn. Norm. 8: 157, 1862).

* This genus has been omitted from Coleopterorum Catalogus (151), 1936.

19. *Neoampagia imitator*, new species (pl. 3, G).

Derm reddish brown to piceous; head with brown scales with an interocular pale patch, upper margins of eyes partially margined with pale scales and with a pale patch on either side of the median line on crown; pronotum with dark brown scales on disk but with a pale cross consisting of a pale median vitta and a transverse pale fascia at about middle, sides with whitish, yellowish and fawn-colored scales, darker scaling therefore appearing as four discal dark maculae; elytra predominantly with dark brown to black scales but with an ill-defined, irregular roughly V-shaped broad area of fawn-colored scales within basal half from near humeri on sides to suture, pale scaling continued down first two or three intervals to posterior calli, pale area there expanded to apex, pale areas tessellated with dark patches and probably subject to considerable variation; legs and lower surface clothed with yellowish white or grayish white scales.

Head densely punctate on crown, the derm concealed by the dense appressed scaling; interocular area one half as broad at top as base of rostrum, coarsely sculptured, scales directed dorsally and becoming narrower and setiform distad. *Rostrum* in male coarsely punctate-striate to antennae on either side of impunctate median line, with small dense punctures beyond antennae. *Antennae* inserted very slightly past middle in male; scape as long as funicle excluding club, gradually clavate; funicular segment 1 slightly longer and thicker than 2, 2 slightly longer than 3 plus 4, 3 to 7 each successively more transverse; club as long as preceding five funicular segments plus half of sixth, more than half as broad as long, obtusely rounded at apex, 4 segmented, but terminal segment not easily discernible, the two basal segments large and subequal in length. *Prothorax* one third broader than long, apex arcuate, only half as broad as base, arcuately narrowing from base to apical fourth and there rather broadly constricted, constriction broadly, shallowly and distinctly impressed across dorsum; densely punctate and very densely squamose throughout, scales ovate, punctures bearing decumbent, lanceolate, squamiform setae; subcarinate at sides at base in front of humeri. *Elytra* four fifths as broad as long, two and one half times as long as prothorax, almost continuous in outline with base of prothorax for a short distance behind humeri on sides, thence arcuately, triangularly narrowing to broadly rounded apex, strongly convex dorsally, longitudinally and laterally, reaching a summit slightly before middle and there higher than highest point on pronotum, longitudinal outline discontinuous with that of pronotum, scaling very dense, ovate scales imbricated; striae shallow and concealed by scaling on disk, but traceable because of their punctures bearing squamiform, spatulate setae that usually rise somewhat above scales and are white or usually paler than surrounding scales, stria 7 deeply impressed from humerus to basal third, edge of interval above it therefore forming a distinct carina, 9 similarly impressed and interval above it forming a similar carina, but these carinae variable in development, 10 deeply impressed at base, but fine behind metacoxa; intervals, except partially elevated ones mentioned, broad and flat. *Legs* coarsely punctate and squamose; hind femora reaching to slightly behind posterior margin of fourth ventrite; tibiae with three lateral carinae on either side and one dorsal carina. *Sternum* densely squamose; pectoral canal terminating at middle of mesocoxae; metasternum broadly concave, with a fovea on median line at base and apex. *Venter* with first ventrite broadly and deeply concave in male; ventrites 1 and 2 densely squamose, but scales not entirely concealing derm, minutely punctate except for some coarser punctures at base of first; 2 and 3 squamose at sides and along basal margin only; 5 densely and coarsely punctate, setose and squamose. Length, 3-3.5 mm.; breadth, 1.6-2.0 mm.

Holotype male, to be stored in the National Museum and one male paratype in Bishop Museum, taken by Fullaway and labeled "Island Guam."

This is a most distinct species which could not be confused with any of the other Guam weevils. Its densely squamose, subrhomboidal body will serve to distinguish it at a glance. I have called it *imitator* because of its resemblance to various species of *Ampagia* and *Ampagioides*.

Genus **ANABALLUS** Blanchard, 185120. **Anaballus amplicollis** (Fairmaire) (pl. 2, A).

Acalles amplicollis Fairmaire, Rev. Mag. Zool. II, 1: 36, 514, 1849.

Imaliodes pusillus Karsh, Berl. Ent. Zeitschr. 25: 10, pl. 1, fig. 15, 1881.

This is an easily recognized species because of its expanded prothorax, subquadrate elytra and brownish and orange scaling. For more detailed description and discussion see my "Cryptorrhynchinae of the Austral Islands" (B. P. Bishop Mus., Occ. Papers 12(17): 4-5, fig. 1, a, 1936).

This species is widespread throughout the Pacific, at least from New Caledonia eastward. In southeastern Polynesia I found it most frequently associated with the fallen fruits of *Inocarpus edulis*.

In the collections before me there are the following specimens from Guam: three specimens, Upi Trail, reared from *Cycas* seed, May 5, 1936, Swezey; one, May 11, Usinger; eight, Piti, from fallen fruit of breadfruit, May 22, Swezey; nine specimens with the same data, May 23; three specimens, June 18, seven specimens, on plateau at Talofofo, June 17, reared by Swezey from *gulos* seed; and one, Barrigada, from *Intsia*, July 6, Swezey. The following specimens are from the National Museum material: 54 specimens taken by Oakley from *Ochrocarpus obovalis*, Jan. 14, 1938, no. 523, 38-9037, and one specimen taken in quarantine in San Francisco Aug. 1, 1922 from *Cycas circinalis* from Guam.

Genus **EUSCEPES** Schoenherr, 184421. **Euscepes postfasciatus** (Fairmaire) (pl. 2, C).

Cryptorrhynchus postfasciatus Fairmaire, Rev. Mag. Zool., 513, 1849.

Cryptorrhynchus batatae Waterhouse, Ent. Soc. London, Proc., lxix, 1849 (1850).

Hyperomorpha squamosa Blackburn, Roy. Soc. London, Trans., II, 3: 182-183, 1885.

Euscepes batatae (Waterhouse) Champion, Biol. Centr. Am. Coleopt. 4(4): 497, 1905.

Euscepes postfasciatus (Fairmaire) Zimmerman, B. P. Bishop Mus., Occ. Papers 12(23): 14-16, 1936.

This almost cosmopolitan sweet-potato pest (commonly called the West Indian sweet-potato weevil) is easily recognized by its subparallel-sided, densely squamose elytra which have a common, transverse, pale fascia at the top of the declivity. The pronotum bristles with erect, spatulate setae, borne from rather large, close punctures; the interstices between the punctures are coarsely reticulate.

The following specimens from Guam are before me: three, Piti, from sweet-potato vine, Nov. 17, 1936, Swezey; two were taken by Fullaway but have no specific locality other than "Island Guam."

Genus **ACALLES** Schoenherr, 1826

This genus is almost cosmopolitan in distribution as it now stands, but it is composite and is greatly in need of revision. It has been a dumping ground for many species of dubious generic status.

22. **Acalles samoanus** Marshall, Insects of Samoa 4(5) : 280-281, 1931 (pl. 3, C).

This is a widespread species known from Fiji, Tonga, and Samoa and eastward through the Austral, Society, Mangareva, and Marquesas Islands.

As is usual for the species, it varies greatly in size, shape, sculpture and development of the dorsal tubercles in the series from Guam before me. However, there is more extreme variation in the Guam material than I have seen in specimens from other islands, and two extreme, isolated individuals might almost be taken for distinct species. Clean specimens can perhaps be most easily recognized by the conspicuous patch of white squamae at either side of the base of the pronotum in front of the fifth elytral intervals in combination with their tuberculate dorsum and other characters. For a complete description, discussion and illustration, see my "Cryptorrhynchinae of the Austral Islands" (B. P. Bishop Mus., Occ. Papers 12(17) : 5-7, fig. 2, b, 1936).

The following specimens from Guam are before me: two at Machanao, June 5, 1936, Usinger; one, Fadian, Sept. 18, Swezey; and two taken by Fullaway without specific locality.

Genus **DAEALUS**, new genus

Body densely squamose above and below; tuberculate or nodulate above. *Head* globular; immersed in prothorax but not entirely concealed from above; eyes large, coarsely faceted, lateral, almost as widely separated below as above. *Rostrum* arcuate, somewhat dorso-ventrally compressed, somewhat shorter than pronotum; antennae inserted beyond middle in both sexes. *Antennae* with scape as long as or longer than funicle excluding club, reaching to eye; funicle 7-segmented, first two funicular segments elongate, first not much longer than second, each about as long as segment 3 plus 4, the other segments successively slightly shorter, submoniliform; club ovate, shorter than the funicle, compact, 4-segmented, basal segment longer than second. *Prothorax* slightly transverse, convex dorsally, laterally and apically above, with a subapical constriction; ocular lobes small, obtuse. *Scutellum* absent. *Elytra* fused, elongate-subcordate, dorsally convex, nine-striate, the ninth stria complete. *Wings* absent. *Legs* rather long and slender; femora not distinctly clavate, not distinctly grooved below for reception of tibiae, not toothed, hind pair reaching past base of fifth ventrite, but not reaching past apex of elytra; tibiae for most part straight and subparallel-sided, carinate or not carinate, uncus well developed; tarsi with first segment much longer than second, second submoniliform and shorter than third, third transverse, lobes broad, fourth segment projecting well beyond apex of third, truncate distally, claws large and lateral. *Sternum* with pectoral canal deep and broad, terminating near middle of mesocoxae, not squamose; mesosternal receptacle open, or at most indistinctly cavernous in female, walls high and well developed, posterior part not thickened and not projecting much below level of metasternum, however; mesosternal side pieces fused, but episternal suture usually distinct; mesocoxae separated by about breadth of a coxa; metasternum at its narrowest point between mid and hind coxae only about one third

as long as breadth of a mesocoxa, only one third to one half as long along median line as first ventrite, metepisternum visible as a subtriangular sclerite at upper edge of junction of metasternum and mesepimeron, metacoxae not quite touching elytra, about twice as widely separated as mesocoxae. *Venter* with first two segments evidently at least partially fused and rigid but with suture between them deep and distinct, 1 about as long as following three together along median line, 2 shorter than 3 plus 4 at sides, 5 longer than 3 plus 4 which are subequal in length.

Genotype: *Daealus tuberosus*, new species.

This genus is erected for the reception of two new Guam weevils with some diffidence, because it belongs to that poorly characterized, inadequately known, difficult assemblage of genera allied to *Acalles*. I have been unable to place the genus in any of the synoptic tables including Pacific or Oriental genera that are known to me. It will fit in none of Lea's extensive keys to the Australian Cryptorhynchinae. In Heller's key to the genera of the Cryptorhynchinae of New Caledonia (in Sarasin and Roux, Nova Caledonia 2(3): 322, 1916), it runs immediately to *Lasiotylodes* Heller, but that genus has no relationship to this one. It will not run to *Acalles* because of its shorter second abdominal segment. It can, perhaps, be said at this time only that the genus is allied to *Acalles*. It is distinct from *Acalles* principally because of the structure of the mesosternal receptacle—the termination of the pectoral canal being near the middle of the mesocoxae—and because the second ventrite is shorter than the two following ventrites at the sides. Among the weevils known to me, the genotype of this genus most closely resembles an undetermined species, from Amboina, which may also represent a new genus and which is distinct from *Daealus* because it possesses a scutellum and has other structural differences; it is also evidently allied to *Tragopus*. *Daealus* is also unknown to Sir Guy Marshall, who has studied the genotype.

KEY TO THE SPECIES OF DAEALUS

- | | |
|---|------------------------------------|
| Tibiae not carinate; third elytral interval without distinct, isolated, prominent fasciculate calli | 23. <i>D. tuberosus</i> Zimmerman. |
| Tibiae conspicuously carinate; third elytral interval with two distinct, usually prominent fasciculate calli in the basal half, the posterior one larger and at about the middle..... | 24. <i>D. tibialis</i> Zimmerman. |

23. *Daealus tuberosus*, new species (pl. 2, D).

Derm reddish brown to black, usually quite shiny where exposed, densely squamose above and below, scaling entirely or almost white or grayish white in old faded specimens but well colored in fresh examples as follows: head pale brown, prothorax basically yellowish white with a brownish-yellow cloud at basal half at sides of disk and one on either side of median line; elytra with a broad sub-V-shaped fascia of yellowish white scales from sides near or distant from base to suture at about middle, pale scaling continued as a vitta down first two intervals to apex, otherwise mostly with brownish yellow scales but with a dark brown or black elongate patch on third interval in front of and behind sub-V-shaped macula, but these dark patches subject to much variation, sometimes front ones wanting and occasionally with more dark scaling toward apex of third interval; scaling on legs and underside rather uniformly yellowish white or brownish yellow.

Head with crown densely squamose, derm mostly concealed by scaling, scales erect or suberect, with numerous, spatulate, erect setae scattered throughout that project slightly above scales; front with similar vestiture to crown, with a distinct elongate interocular fovea that usually begins above a line drawn between tops of eyes and terminates near middle of eyes where distinct median carina of rostrum begins, interocular area fully as broad as base of rostrum. *Rostrum* with ventral edge three fourths as long as pronotum in male, more than three fourths as long in female, antennae inserted slightly beyond apical third in male, at or slightly behind apical third in female, coarsely and deeply sculptured from base almost to antennae, with three coarse, somewhat irregular dorsal carinae, striae between them densely set with erect setae, coarsely sculptured and carinate only within basal half in female. *Antennae* with scape somewhat longer than funicular segments 1-7 plus basal segment of club; funicle with two basal segments equal in length or first slightly longer, 2 slightly shorter than 3 plus 4, 3 almost as long as 4 plus half of 5; 4 slightly longer than 5, 5 to 7 each successively slightly broader; club as long as segments 4 to 7 plus part of three. *Prothorax* more than three fourths as long as broad, broadest somewhat beyond middle, base subtruncate, strongly convex on sides from base to apical third or beyond and there with a distinct, not very deep, but variable, subapical constriction, the constriction continued broadly across dorsum which is strongly convex; disk with median line rather deeply and conspicuously impressed and without tubercles, with numerous, scattered, rounded, prominent, polished tubercles extending through scaling; scales similar to those on elytra, very dense, concealing derm, with numerous erect, spatulate setae scattered throughout. *Elytra* four fifths or five sixths as broad as long, base subtruncate, broadly arcuate on sides from base to about middle and thence rather rapidly narrowed to the apex, longitudinal dorsal contour convex, reaching a summit at about middle and there hardly higher than highest part of pronotum; striae mostly concealed by scaling, much narrower than intervals, their punctures well separated, very small behind basal third and each bearing a decumbent squamiform seta; intervals prominently convex, some of them A-shaped in cross section, especially 3, 5, and 7, interval 1 with a single row of stout, erect, spatulate setae, sometimes setae beginning at a distance from base, without tubercles, 2 with a complete row of prominent tubercles usually interspersed with spatulate setae, 3 usually distinctly more elevated than 2 from base to behind middle, sometimes more strongly elevated at base and just in front of middle, more elevated areas with denser, erect, spatulate setae giving a fasciculate appearance, either entirely without tubercles or with few to many at base, 4 tuberculate, 5 setose, either not tuberculate or with a variable number of tubercles at base, 6-10 tuberculate, tubercles becoming smaller on outer intervals. *Legs* with femora and tibiae densely squamose and setose; tibiae not carinate. *Sternum* densely squamose throughout; mesosternal receptacle obviously open in male, its margins fringed with long hair, hind wall slightly more protuberant in female, narrowly and just perceptibly cavernous and without hair; metasternum only one fourth or less as long between mid and hind coxae as breadth of a mesocoxa, squamose only in female, but squamose and with dense long hair in male. *Venter* with first ventrite tumid and squamose in female, depressed and with disk free from scales and there with long, dense, simple or compound erect hair in male; ventrites 2 to 5 squamose in female, 2 with some long hair and 5 with depressed disk free from scales and hirsute in male. Length, 4-8.0 mm.; breadth, 2-4.0 mm.

Holotype male, Agat, May 31, 1936, Usinger; allotype female, Machanao, June 5, Usinger; and the following paratypes: one, same data as holotype; one same place and date, from *Hernandia*, Swezey; one, Tarague, May 17, Swezey; one, Agana, May 25, Usinger; two, Machanao, from *Piper*, June 4, Swezey; one, Machanao, June 5, Usinger; one, Sinajana, June 15, Swezey; one, Atao Beach, June 25, Usinger; two, Machanao, June 30, Swezey; three, Orote Peninsula, from *Pipturus*, Sept. 27, Swezey; and one taken by Fullaway. The following paratypes are in the National Museum material: six specimens

taken by Fullaway and labeled only "Island Guam", one of them taken from *Hernandia*.

This species varies greatly in size, color, color pattern, and arrangement and number of the tubercles. Old specimens with their bleached scaling appear at first sight to belong to different species than fresh examples. In spite of this variability, specimens of this species have a distinctive facies that is not likely to be confused.

24. *Daealus tibialis*, new species (pl. 2, E).

Derm reddish brown to black, densely squamose above and below; scaling colored as follows: head brown, usually with a white patch at inner upper corner of eye and a dark area on either side of middle of crown; prothorax basically with brownish yellow and yellowish white scales, with an outstanding black vitta behind middle in front of elytral interval 5; elytra with basic coloration similar to that of prothorax, with discal area between fasciculate calli on interval 3, laterally to fifth intervals usually quite conspicuously paler than surrounding areas, yellowish white, usually with black scales on posterior part of hind callus on interval 3 and a rather large area before and beyond apices of intervals 4 and 7; legs with femora banded with pale and dark scales; underside yellowish white.

Head with derm almost entirely concealed by scaling which is prostrate or slanting, setae erect and very similar in size and shape to squamae; interocular fovea not strongly developed, interocular area coarsely sculptured, with median carina of rostrum continued to level of tops of eyes. *Rostrum* about four fifths as long as pronotum; coarsely, confluent punctate to antennae in male, lateral carinae irregular or indistinct, median carina well developed, less coarsely sculptured in female, but closely punctured. *Antennae* with scape about as long as funicle plus basal segment of club; funicle with segment 1 about as long as 2 plus one fourth of 3, 2 about as long as 3 plus 4, 3 slightly longer than 4, 4 to 7 successively slightly broader; club about as long as five preceding funicular segments. *Prothorax* one fifth to one sixth broader than long, rather evenly expanded on sides to near middle, then strongly rounded to subapical constriction at apical fourth, constriction strongly continued across dorsum and making longitudinal dorsal outline conspicuously sinuous; disk with variable, small to large punctures, median line broadly and conspicuously impressed, with numerous small, low, round, polished tubercles, most numerous on either side of median line, and absent from median canal; scaling similar to that on elytra; setae scattered, but condensed on either side of middle of apex, erect or suberect, spatulate. *Elytra* fully three fourths as broad as long, twice as long as prothorax; base subtruncate, sides arcuate to middle, thence subtriangularly narrowing to the rounded apex; striae with coarse foveiform punctures about as broad as intervals in basal third or half, but small and inconspicuous behind; intervals, excepting 1 and lateral one or two, strongly convex at least in basal half, but not so behind, 1 not tuberculate, usually with a nearly complete row of suberect, spatulate setae, 2 with a complete row of tubercles from base to apex, 3 with a callus at about basal fourth and another more prominent and higher one at about middle, the calli usually distinctly fasciculate, with tubercles from first callus to base, otherwise without tubercles, 4 tuberculate, 5 partially tuberculate, at least near base, 6 to 10 tuberculate, tubercles smaller toward sides and apex of elytra. *Legs* with femora and tibiae densely squamose; femora with numerous, scattered tubercles; tibiae with two strongly developed carinae on either side. *Sternum* densely squamose throughout, mesosternal receptacle hardly cavernous in either sex; metasternum between mid and hind coxae one fourth as broad as a mesocoxa. *Venter* densely squamose, with first ventrite flattened in middle in male, hardly different in female; ventrite 5 with scales mostly replaced by hairs at apex in male. Length, 3-4.0 mm.; breadth, 1.5-2.0 mm.

Holotype male, allotype female, collected at Dededo, May 11, 1936, Usinger; and the following paratypes: one with data identical with that of the

holotype; one, Orote Peninsula, from *Premna gaudichaudii* (*integrifolia*) on label, May 8, Bryan; three, Agana, May 25, Usinger. The following paratypes are from the National Museum material: eight, from *Morinda citrifolia* (*Morinda indica* according to Merrill), Oakley, no. 748; and three taken by Fullaway.

In addition to being smaller than the genotype, the carinate tibiae, form and position of the fasciculate elytral calli, coarser striae punctures, and lack of such distinct sexual characters in the male will readily distinguish this species.

Genus **MICROCRYPTORHYNCHUS** Lea

For a description of this genus, together with discussion and a chart of the distribution of the species, see my "Cryptorhynchinae of Rapa" (B. P. Bishop Mus., Bull. 151: 1938).

From a zoogeographical viewpoint, the discovery of four new species of *Microcryptorhynchus* on Guam is particularly significant. Heretofore, the most westerly known extension of the genus was along the east coast of Australia and King Island in Bass Straits off the south coast of Victoria and an isolated species collected by Lea on Mount Barker, north of Albany near the southwest tip of western Australia. It seems to me unusual that an isolated species should live in the Mount Barker vicinity, and I should like to have the locality data verified. Although Guam is not nearly so far west as the Mount Barker locality, it marks the most northwesterly extension of the genus thus far recorded. Only four species have been described from the vast area and numerous islands between New Caledonia and Guam, but many species will probably be found there. The description of the four Guam species brings the total number of species to 107 which show an almost continuous distribution from eastern Australia through New Caledonia, Fiji, Samoa and the Austral, Society, Marquesas and Mangareva Islands.

In my other studies of the genus I have called attention to the fact that each island or group of islands usually has its own complex or complexes of species displaying characters peculiar to that island or group. This phenomenon apparently holds true for the Guaman species, because, insofar as I now know, only in Guam are found species that have a sclerotized, conical, spinelike process at the base of the elytra on either side of the scutellum.

KEY TO THE SPECIES OF **MICROCRYPTORHYNCHUS** FOUND IN GUAM

- | | |
|---|---|
| 1. All the elytral intervals distinctly setose; base of elytra without a sclerotized spine on either side of the scutellum..... | 2 |
| Only the alternate elytral intervals setose, base of elytra with a conical, sclerotized spine on either side of the scutellum (sometimes partially obscured by incrustation)..... | 3 |

- 2(1). Pronotum with no trace of a median carina; elytra conspicuously globose 25. *M. guamae* Zimmerman.
 Pronotum with a partial or almost complete, distinct median carina; elytra more ovate than globose 26. *M. premnae* Zimmerman.
- 3(1). Basal spine of elytra situated at the base of the setose third interval 27. *M. spinifer* Zimmerman.
 Basal spine of the elytra situated at the base of the non setose second interval and so small as to be often almost concealed by the incrustation 28. *M. basipennis* Zimmerman.

25. *Microcryptorhynchus guamae*, new species (pl. 3, E).

Derm shiny black when exposed, with antennae and tarsi reddish, covered with a comparatively thin incrustation that gives the derm a dull appearance before abrasion; setae mostly conspicuously white, but usually with some dusky setae.

Head narrowly exposed from above, densely punctate, surface appearing asperate when denuded, with numerous broad, squamiform setae on crown and one or two rows of larger, erect, squamiform setae along either side of front extending from rostrum, inner rows usually incomplete or absent, but row adjacent to inner margins of eyes always well developed. *Rostrum* with four rows of broad squamiform setae and encrusted from base to insertion of antennae, distinctly punctate beyond antennae, three dorsal carinae, except part of median one, usually obscured or concealed in male, female with setae and incrustation at base only, otherwise bare and with broad median carina, which becomes evenly broader from base to antennae, and narrower lateral carina well defined and conspicuous, sulci between them distinct. *Prothorax* almost one third broader than long (3:2.25), strongly rounded on sides from base to subapical constriction at apical fourth, constriction continued distinctly across dorsum; base subtruncate, basal squamose, declivitous area quite simple, very coarsely, densely reticulately punctate, rather closely set with large, erect, usually broad spatulate setae throughout. *Elytra* quite strongly inflated and subglobose, but slightly longer than broad (2.5:2.25), two and one half times longer than prothorax, evenly and strongly rounded on sides, without a subapical constriction, longitudinal dorsal contour strongly convex and rising far above summit of pronotum, and strongly discontinuous with dorsal contour of prothorax; striae coarse, as broad or broader than intervals, punctures very large, coarse and quadrate; intervals convex, each bearing a row of very conspicuous, long, erect, heavy, spatulate or clavate setae. *Legs* with femora and tibiae with rows of long, erect or slanting, spatulate setae and at least tibiae with more or less matted, dense hair; tibial uncus arising from outer apical angle and strongly developed throughout. *Sternum* with mesosternal receptacle deep and cavernous, pectoral canal terminating at or in front of middle of mesocoxae in male, but only slightly before metasternum in female, hind wall of receptacle about twice as broad in male as female, usually only slightly protuberant; metasternum very coarsely and closely punctate, setose, one half to three fourths as long between mid and hind coxae as breadth of a mesocoxa, metacoxae separated by a distance twice that of length of metasternum along median line. *Venter* with first two ventrites coarsely, densely, reticulately punctured, setose, strongly tumid and quite similar in both sexes, intercoxal process arcuate; ventrite 5 coarsely reticulate, indistinctly punctate, bearing scattered setae. Length, 1.5-1.8 mm.; breadth, 0.8-1.25 mm.

Holotype male, allotype female and 16 paratypes collected at Ritidian Point, June 2, 1936, Usinger; one from same place, April 15, Bryan; one, Piti, from *Cestrum diurnum* (*pallidum* on label), May 2, Usinger; four taken by Usinger and one by Bryan, Upi Trail, May 5; one, Piti (in house), May 13, Swezey; two, Machanao (on unknown tree), June 4, Swezey; one, Machanao, June 30; one at Atantano (from rice seedling plot), Sept. 3, one at Merizo, Oct. 2,

Swezey; one without specific locality and among the National Museum material, three from the same lot, Fullaway; four, from *Premna gaudichaudii*, July 23, 1937, Oakley, no. 37-24080.

This species is closely allied to *M. premnae* but it lacks the median pronotal carina found on *M. premnae*. This and *M. premnae* belong to that group of rotund species exemplified by *M. glomus* Marshall from Samoa and *M. vagus* Zimmerman from the Society Islands, but they have setae on all of the elytral intervals instead of on the alternate intervals only.

26. *Microcryptorhynchus premnae*, new species (pl. 3 H).

Derm shiny black when exposed, with antennae and tarsi reddish, covered with a thin to moderately dense gray incrustation; setae mostly white, but with some dark ones on dorsum.

Head narrowly exposed from above, coarsely reticulate, indistinctly punctate, with small round, rather obscure squamae, with one or two rows of broad, erect spatulate setae extending from rostrum along inner margins of eyes and scattered on front above level of eyes. *Rostrum* setose and encrusted only at base in female, the three dorsal carinae well defined to antennae, median one becoming evenly broader distad, minutely punctate and minutely setose beyond antennae, with two rows, sometimes three near the base, of broad, spatulate, erect setae and encrusted from base to antennae in male, carinae obscured except near antennae. *Prothorax* one fifth broader than long, strongly rounded on sides from base to subapical constriction at about apical third, constriction continued shallowly and broadly across dorsum, basal squamose area unmodified; dorsal puncturation very dense, punctures not large, but coarse, surface having an asperate appearance when abraded; with an irregular, variable, complete or vestigial, narrow, bare median carina; closely set with conspicuous, erect, clavate, and spatulate setae. *Elytra* stoutly ovate, over three fifths as broad as long (3.5:5), almost to distinctly two and one half times as long as prothorax, broadly arcuate on sides from base to apex, without a subapical constriction, longitudinal dorsal outline arcuate before steep declivity, reaching its summit at middle and there not greatly elevated above level of pronotum; striae punctures quadrate, large and coarse, as broad or broader than intervals, their interstices narrower than their lengths; intervals slightly convex, each bearing a row of conspicuous, erect, broad, spatulate setae. *Legs* with femora with scattered, erect, spatulate setae; tibiae with prostrate matted hair and rows of erect spatulate setae, uncus arising from outer apical angle and well developed throughout. *Sternum* with mesosternal receptacle deep and cavernous, terminating at about middle of mesocoxae in male and almost at their apices in female, hind wall twice as thick in male as in female, but slightly protuberant; metasternum coarsely punctate, about half as long between mid and hind coxae as breadth of a mesocoxa; metacoxae separated by a distance slightly more than twice that of length of metasternum along median line. *Venter* with scattered setae, the first two ventrites coarsely and densely punctured, the first flattened and similar in both sexes, intercoxal process subtruncate in middle but rounded at corners; ventrite 5 coarsely reticulate, not distinctly punctured. Length, 1.3-1.75 mm.; breadth, 0.75-0.9 mm.

Holotype male, to be deposited in National Museum, allotype female, in Bishop Museum, 28 paratypes, one broken specimen and one dissected specimen collected from *Premna gaudichaudii*, July 23, 1937, Oakley, no. 37-24080.

This species is very closely allied to *M. guamae* but is narrower and not so strongly inflated, the prothorax is not so transverse, has the subapical constriction less deep and a distinct, although very variable, median carina; the incrustation is grayer; the elytra are not so globose and not so strongly convex dor-

sally; the male genitalia are quite distinct from *M. guamae*. The variable median carina of the prothorax is perhaps the best external character to use in separating this species from *M. guamae*. This species has a distinct facies because of its different proportions of the body that should enable one to segregate specimens of it from a series of the two species without great difficulty, in spite of the great similarity of this and *M. guamae*.

The outstanding differences exhibited in the structure of the male genitalia of these two closely allied species is particularly noteworthy. The external characters of the two species are, for the most part, quite similar, but the male aedeagus is most distinct on each.

27. *Microcryptorhynchus spinifer*, new species (pl. 3, F).

Derm dull to moderately shiny black, with antennae, tarsi and distal ventrite reddish, densely clothed with a thin or thick, hard, amorphous, mudlike incrustation which will soften in water; setae white or grayish white.

Head completely concealed from above by pronotum; finely and densely punctate; with a single row of erect spatulate setae continued from rostrum along inner margins of eyes and converging on crown. *Rostrum* encrusted and with lateral rows of erect spatulate setae continued to, but becoming finer near antennae, with an additional, short incomplete row of finer setae on either side of median line near end of encrusted and setose area in both sexes, incrustation and setae not extending quite so far from base in female. *Prothorax* slightly longer than broad (2.3:2), rounded on sides from base to slightly beyond middle thence conspicuously constricted, constriction continued prominently and deeply across dorsum but true depth usually concealed by incrustation, longitudinal dorsal contour conspicuously sinuate; puncturation coarse, dense, and rough, but individual punctures not large, basal squamose area modified into a sub-hemispherical, almost perpendicular face between basal spines of elytra; disk with long, erect, almost straight, but slightly clavate, spikelike scattered setae and with two rows of similar setae at dorsal apical margin, setae similar to those on elytra and about as long or longer than greatest breadth of a fore tibia. *Elytra* more than half as broad as long (2.5:4.0), twice as long as prothorax, true outlines sometimes obscured by incrustation, ovate, arcuate from base to apex, without a subapical constriction; base with a very conspicuous, conical, sharply pointed, sclerotized spine about as long as setae and inclined at about 45 degrees toward the side and centered at third interval, but base extending to or near second and fourth intervals; striae coarse, broader than intervals, their punctures coarse, deep, subquadrate, close, their interstices narrower than their lengths; intervals convex, only alternate ones bearing rows of very long, conspicuous setae similar to those on pronotum. *Legs* with femora and tibiae bristling with long erect setae, some of those on outer edges of tibiae about as long as breadth of a tibia; tibial uncus well developed throughout. *Sternum* with mesosternal receptacle deep and cavernous, terminating at about middle of mesocoxae in male, and very near hind margins of mesocoxae in female, walls complete but not or but slightly elevated; metasternum between mid and hind coxae slightly shorter than breadth of a mesocoxa, finely punctate, metacoxae separated by about twice median length of metasternum. *Venter* with first two ventrites flattened in both sexes, densely punctate, but punctures not large, intercoxal process slightly arcuate; fifth ventrite coarsely reticulately minutely punctate or evidently impunctate. Length, 1.5 mm.; breadth, 0.7 mm.

Holotype male, allotype female, and two paratypes from Barrigada, June 12, 1936 and two paratypes from Machanao, one June 12, 1936 and two paratypes from Machanao, one June 4, and June 5 (all collected by Usinger).

This species is most closely allied to *M. basipennis*. But it is distinguished from that species by having the basal elytral spines much larger and on the third intervals instead of the second, and by having the dorsal setae longer and more conspicuous. The two species can usually be separated with the unaided eyes because of the dark muddy incrustation on *M. spinifer* and the yellowish or whitish incrustation of *M. basipennis*.

28. *Microcryptorhynchus basipennis*, new species (pl. 3, D).

Derm mostly reddish brown, covered with a very thick, dense yellowish or whitish incrustation that usually greatly distorts true outlines of body and sometimes enlarges lateral outline of body to about a fourth broader than actual breadth; setae white or yellowish.

Head completely concealed from above by the pronotum, finely, indistinctly punctate, with a single row of stout, spatulate, erect setae along inner margins of eyes that extends on crown above eyes. *Rostrum* with at most lines of fine punctures; but not distinctly carinate or sulcate, median line, however, sometimes appearing more polished near antennae; with a single row of setae, similar to those along eyes, on either side and occasionally one to a few similar setae on either side of median line just behind antennae, but without a distinct additional row of spatulate setae. *Prothorax*, when denuded of incrustation, distinctly longer than broad (2.5:2), rounded on sides in basal three fifths, thence distinctly constricted, constriction continued deeply and prominently across dorsum at distal two fifths; basal squamose area modified into an almost perpendicular, sub-hemispherical area; with a few erect sharp or narrowly spatulate setae scattered across disk and two or three rows across apex, apical setae usually broader; punctures not large, but coarse, deep and dense, their interstices very narrow, the disk roughened by their density. *Elytra*, when abraded, elongate ovate, with a slight subapical constriction, three fifths as broad as long, twice as long as prothorax, rather evenly convex in longitudinal dorsal outline and not rising far above level of pronotum; striae very coarse, about twice as broad as intervals, their punctures large, subquadrate, their interstices about as broad as intervals; intervals convex, only alternate ones bearing setae, setae erect and distinct, variable, usually slender and sharp, but sometimes narrowly spatulate, rows sometimes more or less incomplete, second interval with a small, conical, sharply pointed, sclerotized spine at base that is shorter than setae and may become obscured by incrustation. *Legs* with femora and tibiae with scattered erect setae; tibial uncini well developed. *Sternum* with mesosternal receptacle deep and cavernous, walls but slightly elevated, terminating close to hind margins of mesocoxae in female and but slightly more anteriorly in male; metasternum moderately coarsely punctate, slightly shorter between mid and hind coxae than breadth of a mesocoxa; metacoxa separated by twice median length of metasternum. *Venter* with first two ventrites densely and coarsely punctured, but punctures not very large, intercoxal process but slightly arcuate; ventrite 5 rather indistinctly punctate; setose. Length, 1.6-1.8 mm.; breadth, 0.6-0.8 mm.

Holotype male, allotype female, and five paratypes collected at Agana, from *Pipturus*, May 25, 1936; five paratypes from Ritidian Point, June 2; and two paratypes from Machanao, June 30. All of the specimens were taken by Usinger.

The incrustation on this species is usually very thick and greatly distorts the outlines of the body. Some specimens appear to be quite broad because of the piling up of the incrustation at the sides of the body. The setae are much less regular and less conspicuous than on *M. spinifer*.

SUBFAMILY COSSONINAE

TRIBE TRYPETINI

Genus CYLINDROTRYPETES, new genus

Body slender, elongate, subcylindrical, finely setose. *Head* subconical, not laterally constricted behind eyes; eyes coarsely faceted, protuberant, as widely separated below as above, separated from prothorax by at least length of an eye, interocular area fully as broad as base of rostrum. *Rostrum* slender, elongate and subcylindrical, three fourths as long as prothorax and about twice as long as head in genotype; antennae inserted just behind middle in both sexes; scrobes distinct, slanting posteriorly, terminating hardly behind fore edges of eyes, upper margin touching anterior edge of eyes, well separated below. *Antennae* very slender; scape clavate, reaching far behind posterior margin of eye but not reaching prothorax, as long as funicle excluding club; funicle 5-segmented, first two segments elongate, second longer than first; club about half as long as funicle. *Prothorax* longer than broad, subcylindrical, with a distinct subapical constriction; base subtruncate. *Scutellum* minute. *Elytra* no wider than prothorax, more than twice as long as broad, subcylindrical, with only eight striae in basal half, outer stria complete. *Wings* atrophied. *Legs* with femora clavate, not toothed; tibiae short, only about half as long as femora and not longer than tarsi, not carinate, without a terminal uncus or tooth; tarsi with the first segment much smaller than 2, 2 and 3 strongly transverse, about one third as long as broad, 3 bilobed, 4 about as long as 2 plus 3 and projecting well beyond apex of 3. *Sternum* with fore coxae inserted at or but slightly in front of middle, intercoxal process narrower than breadth of a coxa; side pieces of mesothorax fused, intercoxal process narrower than a coxa, mesocoxae separated about as far as fore pair; metasternum between mid and hind coxae only slightly shorter than length of first two ventrites behind a coxa, metepisterna concealed, but suture distinct, metacoxae separated by less than breadth of a coxa and hardly more widely separated than mesocoxae. *Venter* with first two ventrites fused, 1 about as long as 2 behind coxae; 2 longer than 3 plus 4, which are subequal and have deeply impressed sutures; 5 as long as 3 plus 4.

Genotype: *Cylindrotrypetes suffusus*, new species.

This is an isolated, aberrant genus evidently not closely allied to any other described genus of the tribe. In addition to the New Zealand genera, whose species show no resemblance to the genotype of this genus, there is but one other Pacific genus in the tribe, *Tyrpetes* Heller 1908 from the Solomons (the Australian *Nyella* Oke, 1931 does not belong to the subfamily). This genus, however, cannot be associated with *Tyrpetes* because of many morphological differences including the absence of the terminal unci of the tibiae and the postmedian insertion of the antennae. The absence of the tibial unci is a peculiar and infrequently found character among the Curculionidae.

29. *Cylindrotrypetes suffusus*, new species (pl. 4, H).

Derm usually basically piceous black, coxae, trochanters, three apical ventrites, at least part of rostrum, scape and funicle of antennae, and often base of head yellowish brown; prothorax either almost entirely black or, more usually, with disk yellowish brown either at apex, apical half, apical two thirds or entirely from base to apex; elytra yellowish brown on disk from base to declivity, black along sides and apex; body with only minute setae.

Head with an asperate callus extending upon crown from along inner margin of each eye that gives head appearance of having a transverse, dorsal impression across crown when viewed from side; greatest interocular breadth almost twice as broad as an eye in

dorsal view. *Rostrum* three fourths as long as prothorax in both sexes, gently arcuate longitudinally, distinctly bent to left near apex in both sexes, coarsely reticulate almost to apex and with a fine median carina in male, coarsely reticulate only near base in female, and not or but very feebly, carinate, antennae inserted at slightly beyond basal third in male, slightly in back of basal third in female. *Antennae* with scape sinuous, slightly longer than the five funicular segments, filiform in basal two thirds, thence clavate; first funicular segment somewhat more than two thirds as long as second and about twice as thick at apex, 2 as long as 3 plus 4, which are subequal, 5 slightly shorter than 4, club elongate oval, slightly longer than funicular segments 3-5 inclusive. *Prothorax* one fourth longer than broad, base subtruncate, arcuate on sides from base to near apex and there sharply and narrowly constricted, apical margin somewhat raised and collar-like; coarsely, densely, aspirately punctate throughout, the punctures individually rather indistinct because of their density and narrow interstices. *Elytra* fused, two and two thirds times longer than broad, two and one fourth times longer than prothorax, narrower at base than greatest breadth of prothorax and usually at no place broader than prothorax, base subtruncate, humeri obsolete, subparallel-sided and subtubular in about basal three fourths, thence roundly narrowed at apex which is usually slightly produced; striae well developed, closely and coarsely punctate, broader than intervals, with eight striae in basal half and nine in caudal half; intervals very narrow, each bearing a row of microscopical flecklike setae. *Legs* with femora and tibiae coarsely reticulate, minutely setose, femoral clava at least three fourths as long as femora; tibiae with terminal setae but without a trace of teeth or uncini; tarsi densely setose, third segment of fore pair two thirds as broad as length of a tibia. *Sternum* with prosternum densely and rather coarsely punctured, concave behind each coxa; mesosternum on same plane as metasternum; metasternum densely punctate as prosternum, metepisternal suture appearing as a narrow band of closely placed transverse lines. *Venter* with first two ventrites densely, but not so coarsely punctate as metasternum; ventrites 2 and 3 minutely and indistinctly punctate, or impunctate; ventrite 5 pilose. Length, 1.25-1.6 mm.; breadth, 0.3-0.4 mm.

Holotype male, Passan, from *Pandanus*, June 15, 1936, Swezey; allotype female, Machanao, June 4, Usinger; 12 paratypes taken on Mt. Alifan from *Asplenium nidus*, May 26, Swezey; two paratypes, Machanao, taken from *Pandanus*, June 4, Swezey; and one taken from *Pandanus* fruit, June 8, 1939, Oakley, no. 2269.

This tiny, subcylindrical species has so many peculiar characters and such a distinctive facies that it cannot be confused with any other Guam weevil. The peculiar, laterally bent rostrum seems almost to be an abnormality, but all of the 17 specimens at hand have it distinctly bent to the left.

Mr. Swezey says that he recalls that individuals of this species ran about rapidly on foliage.

TRIBE COSSONINI

KEY TO THE GENERA FOUND IN GUAM

- | | |
|--|------------------------|
| 1. Antennal funicle 5-segmented..... | 2 |
| Antennal funicle 7-segmented..... | 5 |
| 2(1). Third tarsal segment deeply bilobed..... | <i>Choerorrhinos</i> . |
| Third tarsal segment not at all bilobed, entire and subtruncate distally..... | 3 |
| 3(2). Rostrum long and slender, one and one half to two times as long as the head (in the Guam species); eyes separated from the prothorax by two or three times the length of an eye..... | <i>Stenotrupis</i> . |
| Rostrum shorter and stouter, shorter or as long as the head but never distinctly longer; eyes separated by less than twice their lengths from the prothorax | 4 |

4(3). Intercoxal process of the prosternum not broader than the breadth of a coxa	Tythoxydema.
Intercoxal process of the prosternum about twice as broad as a fore coxa	Rhinanisodes.
5(1). Eyes ventro-lateral, contiguous with the anterior margin of the prothorax at their lower hind corners.....	Himatignum.
Eyes lateral, distant from the fore margin of the prothorax.....	6
6(5). Rostrum obviously expanded beyond the insertion of the antennae, or the dorso-lateral margins of the rostrum distinctly emarginate behind the antennae or both.....	7
Rostrum not or but slightly and inconspicuously expanded beyond the insertion of the antennae, the dorso-lateral margins not emarginate behind the antennae	9
7(6). Derm roughly sculptured and dull; posterior part of the scrobe distant from the lower margin of the eye, scape, at rest, lying far below the lower orbital margin	Dryotribodes.
Derm shiny; upper edge of the posterior part of the scrobe contiguous with the lower margin of the eye; scape at rest, touching the lower orbital margin	8
8(7). Third hind tarsal segment obviously broader than the second; dorso-lateral margins of the rostrum not emarginate behind the antennae.....	Oxydema.
Third hind tarsal segment hardly broader than the second; dorso-lateral margins of the rostrum distinctly emarginate behind the antennae.....	Aphanocorynes.
9(6). Rostrum not as long from the fore margins of the eyes to the apex of epistome as its basal breadth, shorter than the side of head from the fore edge of eye to prothorax.....	Macrancylus.
Rostrum longer from the fore margins of eyes to apex of epistome than its basal breadth, longer than the side of head.....	10
10(9). Lateral cephalic constriction not continued across the dorsum, the crown not separated from the front by a distinct difference in sculpture, but continuously punctate to base.....	Eutornus.
Lateral cephalic constriction continued across the dorsum, the area behind the constriction conspicuously marked off from the front by a difference in sculpture, the crown behind the constriction impunctate....	Phloeophagosoma.

Note: These last three dichotomies are for the separation of the Guam species only, and they may not be applicable to the species of other regions.

Genus CHOERORRHINODES Champion, 1914

This genus was erected by Champion (Linn. Soc. London, Trans., Zool. II, 16:458, 1914) to receive a new species (genotype *C. tenuiculus*) from the Seychelles. It has remained monotypic until now. Three Guam species are described here as new and assigned to the genus. It is with some diffidence, however, that I place all three species in the genus because of their structural differences, some of which may necessitate their removal from the genus when our knowledge of the Cossoninae is more complete and the genera more adequately studied and defined. This extreme discontinuous distribution will, I believe, surely be reduced when collections from intervening areas are studied. I have, unfortunately, not seen a specimen of the genotype which was described from a unique, but Sir Guy Marshall has kindly compared my specimens with it.

KEY TO THE SPECIES OF CHOERORRHINODES OF GUAM

1. Dorsal setae very conspicuous, coarse, golden yellow; head not constricted behind eyes.....32. *C. flavisetosus* Zimmerman.
- Dorsal setae inconspicuous, fine, usually rather minute; head constricted at least at the sides behind eyes.....2
2. Post-ocular constriction deeply and prominently continued across top of head.....30. *C. constricticeps* Zimmerman.
- Post-ocular constriction feebly impressed on the sides only and not at all continued across dorsum.....31. *C. marshalli* Zimmerman.

30. Choerorrhinodes constricticeps, new species (pl. 4, A).

Female. Derm rather dull to moderately shiny, reddish brown, piceous to black; setae minute and pale.

Head strongly constricted at less than length of an eye behind eyes, the constriction continued prominently across dorsum, area behind constriction reticulate but impunctate, the lobed area between constriction and eyes coarsely and densely punctate as interocular area; interocular area twice as broad as breadth of an eye when viewed from above, coarsely, densely, subconfluently, continuously punctate with base of rostrum; eyes separated from prothorax by one and one half to two times their length. *Rostrum* almost continuous in longitudinal dorsal outline with interocular area, about three fifths or two thirds as long as pronotum, slightly more than twice as long as broad, slightly and evenly narrowed laterally from base to antennae, thence evenly and slightly expanded to apex, apex about one fourth broader than narrowest post antennal breadth, antennae inserted slightly but distinctly behind middle, apex of scrobe marked by a raised line below hind margin of eye; longitudinal dorsal outline gently arcuate; densely punctate behind antennae, punctures tending to be longitudinally confluent, more finely punctate beyond antennae, coarsely reticulate; setae sparse, minute. *Antennae* with scape reaching hind margin of eye; funicular segment 1 about one fourth broader and twice as long as 2, 2 about as broad as long and longer than 3, 3-5 successively slightly more transverse; club stout, ovate, slightly longer than three preceding segments. *Prothorax* one fifth to almost one third longer than broad; base subtruncate, arcuate on sides from base to near subapical constriction, broadest at or behind middle, subapical constriction prominent, slightly impressed across dorsum which is otherwise almost straight and flat longitudinally; disk flattened, densely and coarsely punctate, punctures subhexagonal, their interstices irregular and much narrower than their diameters; setae minute. *Elytra* two and one half times as long as broad, twice as long as prothorax, base subtruncate, subparallel-sided in basal two thirds, thence narrowed to the bluntly rounded apex; striae deep and coarse; their punctures coarse and close, as broad or broader than intervals, lateral stria terminating at metacoxa, setae minute and inconspicuous; intervals convex, their sides crenulated by strial punctures, each bearing a row of small, fine, decumbent setae, punctate, coarsely reticulate, the ninth costiform above last three ventrites. *Legs* with tibial uncini and teeth at inner apical angles well developed; third tarsal segment deeply bilobed. *Sternum* coarsely, densely punctate throughout; intercoxal process of prosternum about as broad as a coxa, distance between coxal cavity and fore margin of prosternum twice that of distance behind coxal cavity; mesocoxae separated by more than breadth of a coxa; metasternum between mid and hind coxae three times as long as breadth of a mesocoxa, metacoxae separated by slightly less than the transverse diameter of a metacoxa. *Venter* with first two segments coarsely and densely punctate as metasternum; ventrites 3 and 4 punctate along base; ventrite 5 shallowly concave, distinctly punctate along basal margin, indistinctly so elsewhere; finely, sparsely setose. Length, 2-2.25 mm.; breadth, 0.5-0.6 mm.

Holotype female collected at Tarague, May 17, 1936 and one female paratype swept from grass at same time and place, Swezey; two paratypes from National Museum material taken from *Ochrosia* by Oakley, Feb. 9, 1938, no. 741; and four taken by Oakley from dead wood, June 29, 1939, no. 2349.

Since the description was written, I have seen another specimen taken from "Chopag nuts" (*Ochrocarpus obovalis*), Feb. 2, 1938, Oakley.

The conspicuously constricted head will serve to distinguish this species from the other Guam members of the genus. It is most closely allied to *Choerorrhinodes marshalli* but it has, in addition to its different cephalic characters, a flattened instead of dorsally convex pronotum upon which the punctures are more angular, irregular, and individually less distinct than on *C. marshalli*, and the setae on the elytral intervals and in the striae are less dense and less conspicuously developed.

31. *Choerorrhinodes marshalli*, new species (pl. 4, E).

Derm predominantly dull, coal black, with antennae, apices of tibiae and tarsi reddish; setae white.

Head coarsely reticulate throughout; slightly constricted on sides at a diameter of an eye behind eyes, the constriction not continued across dorsum, area behind constriction, at least in part, punctate; densely, coarsely, reticulately, subconfluently punctate from constriction to rostrum; interocular area slightly depressed, two to almost three times as broad as an eye when viewed from above; eyes quite prominent, separated from prothorax for a distance about equal to twice length of an eye. *Rostrum* subcontinuous in dorsal profile with the interocular area; outline shallowly concavely continued to crown, about three fifths as long as pronotum, twice as long as broad, subparallel-sided from base to antennae, slightly enlarged there, thence subparallel-sided to apex, apical breadth only very slightly greater than narrowest postantennal breadth; coarsely reticulate, coarsely, densely, confluent punctate, finely, longitudinally strigate; antennae inserted at middle in female, slightly behind middle in male, scrobes evanescent behind and without a delimiting carina below base of eye. *Antennae* with scape not reaching much past middle of eye and not extending to hind margin of eye; funicular segment 1 broader than, and about twice as long as 2, 2 triangular in outline, narrow at base, almost as long as 3 plus 4, 3-5 each successively slightly more transverse; club about as long as or longer than the four preceding segments. *Prothorax* only slightly longer than broad, base and apex subtruncate, basolateral angles obtusely rounded in basal fourth, thence almost straight, but slightly arcuately narrowed, to about apical fourth, thence more strongly rounded to feeble subapical constriction, constriction only slightly interrupting dorsal contour which is otherwise distinctly and evenly arcuate longitudinally; coarsely, densely, evenly, reticulately punctate, discal punctures individually distinct, their interstices less than half as broad as their diameters, individually distinctly and coarsely reticulate; setae minute and inconspicuous. *Elytra* more than twice as long as broad (6:2.5), and more than twice as long as prothorax in same proportion, base subtruncate, subparallel-sided in basal two thirds, thence rounded to apex and with a slight subapical constriction; striae deep and coarse, their punctures large and coarse, much broader than intervals, their setae normally quite distinct, the lateral stria terminating at metacoxa; intervals narrow and convex, each bearing a row of fine slanting, conspicuous, closely placed setae, ninth interval rather abruptly costiform beyond apex of second ventrite and joined to third at a distance from elytral apex. *Legs* with tibial unci very strongly developed, tooth at inner apical angle minute; third tarsal segment deeply bilobed. *Sternum* coarsely and densely punctate throughout, punctures broader than their interstices; prosternum broadly depressed in middle beyond coxae, intercoxal process slightly narrower than a coxa; metasternum with interstices of punctures shiny, intercoxal process of mesocoxae as broad as a mesocoxa, as long between mid and hind coxae as three times breadth of a mesocoxa; metacoxae separated by two thirds the length of the metasternum between the mid and hind coxae. *Venter* with the first two ventrites tumid in the female, depressed down middle in male, coarsely and densely punctate as the metasternum, interstices shiny; ventrites 3 and 4

coarsely punctate in their basal half; ventrite 5 coarsely and densely punctate throughout, coarsely reticulate, sparsely setose. Length, 1.6-2.0 mm.; breadth, 0.5-0.6 mm.

Holotype male, Orote Point, Aug. 2, 1936, Swezey (bearing label "on red spider on Ipomoea," in error?); allotype female, same place, May 24, Swezey; one paratype with similar data; one paratype, Piti (on hedge), Oct. 22, Swezey; and one paratype, Agana, May 2, Usinger.

In addition to the characters given under *Choerorrhinodes constricticeps* for the separation of this species from that, it should be noted that the antennal scape does not reach to the hind margin of the eye, the scrobes are not delimited behind by a carina below the basal edge of the eye, the crown of the head is at least in part punctate and the rostrum is longitudinally striate.

It gives me much pleasure to dedicate this species to Sir Guy Marshall as an expression of my gratitude and appreciation for his unfailing kindness and cooperation in aiding me in my studies of difficult groups of Curculionidae.

32. *Choerorrhinodes flavisetosus*, new species (pl. 4, F).

♂ Male: derm dull reddish brown, to black, appendages paler, dorsum piceous; setae conspicuously golden yellow.

Head without a constriction behind eyes, sides evenly arcuate from base to eyes, dorsum strongly convex, coarsely reticulate, almost entirely impunctate and bare from base to a line just back of eyes, thence densely, rather coarsely punctate, the stout golden setae somewhat more condensed along inner margins of eyes and across top of punctate front; interocular area twice as broad as an eye as viewed from above, dorsal outline straightly continuous with that of rostrum; eyes separated from prothorax by only about longitudinal diameter of an eye. Rostrum slightly arcuate below, almost straight, straight above almost to antennae, thence gently arcuate, about three fifths as long as pronotum, hardly narrowed on sides from base to antennae, appearing slightly, rather evenly expanded from base to apex, greatest apical breadth only about one eighth broader than narrowest post-antennal breadth; coarsely reticulate, puncturation mostly similar to that on interocular area, but becoming shallower and less definite distally, with a few scattered golden setae; antennae inserted at middle but appearing more apically inserted because of scrobe being continued past insertion; scrobes deep and well defined to near fore margin of eyes, evanescent behind and without a posterior delimiting carina. *Antennae* with scape stout, reaching to hind margin of eye; first funicular segment about one third broader than 2, about as long as 2 plus 3, 2 longer than 3, 3 less bulky than 4 or 5, 3 to 5 successively larger and more transverse; club stoutly oval, as long as four preceding segments. *Prothorax* as broad as long, broadest at about basal third, strongly rounded on sides, most strongly so in basal third from truncate base to strongly marked subapical constriction, constriction only slightly impressed across otherwise slightly arcuate, somewhat flattened longitudinal dorsal contour; apex slightly, broadly emarginate; coarsely reticulate; disk densely punctate, punctures moderately large, but shallow, their interstices narrower than their diameters; most of punctures bearing coarse, decumbent, medially directed, golden setae. *Elytra* coarsely reticulate, twice as long as broad, somewhat more than twice as long as prothorax; base subtruncate, subparallel-sided to apical third, thence broadly rounded to apex; striae mostly rather shallow and not sharply margined, narrower than intervals, their punctures comparatively shallow and broader than grooves, bearing minute, hardly discernible setae; outer stria terminating at metacoxa; intervals flat or almost so, punctate, punctures bearing coarse, blunt golden setae, setae very conspicuous, slanting, close set in single rows, about as long as breadth of intervals, with ninth interval becoming more costiform above fourth ventrite and joining third. *Legs* with femora and tibiae with scattered, decumbent, golden, fine hairlike setae; tibial unci well developed, so formed that their inner margins arise from a point near inner apical angles of tibiae, their inner margins, at least on fore pair,

making a continuous concave curve that ends in tooth at inner apical angle, teeth at inner apical angles minute; third tarsal segment deeply bilobed, fourth segment beginning at basal third of third segment. *Sternum* with prosternum coarsely and densely punctate, interstices narrower than punctures, subapical constriction deeply impressed across apical fourth, distance between fore margin of coxae and apex more than twice that behind coxae, intercoxal process only one third as broad as a coxa; intercoxal process of mesosternum flat, about two thirds as broad as a coxa; metasternum broadly concavely flattened down middle in male, densely, rather coarsely punctured, interstices narrower to almost as broad as punctures, each puncture bearing a decumbent golden seta, median line striaform, impunctate, distance between mid and hind coxae three times length of a metacoxa at trochanter or slightly more than twice as broad as a mesocoxa, metacoxae separated by a distance equal to twice length of a metacoxa at trochanter. *Venter* with first two ventrites punctate and setose as the metasternum, the first rather deeply and broadly concave in the male; ventrites 3 and 4 finely punctate near fore and hind margins; ventrite 5 densely set with setiferous punctures, convex, but with about apical half semi-circularly impressed and less coarsely punctate. Length, 2.3 mm.; breadth, 0.8 mm.

Holotype male collected at Machanao, June 6, 1936, Usinger.

This species is most distinct from the other species described here because of its conspicuous, golden-yellow setae, less coarsely striated and punctate elytra, non-constricted head, more approximate coxae, different structure of the tibial unci, stouter form and other characters.

When a proper revision of the genera of the Cossoninae is written, or when other revisionary work is done, it might be shown that *Choerorrhinodes* cannot include this aberrant species, and perhaps a new genus may be erected for it. The non-constricted head, and more particularly the more approximate coxae and the structure of the tibial unci are divergent characters. On the other species of *Choerorrhinodes* described here, the tibial uncus arises distinctly from the outer apical angle and its inner margin is far removed from the inner apical angle of the tibia and the tibia is more or less straight from the base of the uncus to the tooth at inner apical angle. On this species, however, the uncus, although originating as an extension of the outer tibial margin, is so broad at the base and so curved that it appears to arise from the entire apex itself, rather than from the outer edge, and its inner margin continues on to the base of the tooth at the inner apical angle of the tibia.

Genus STENOTRUPIS Wollaston

Stenotrupis Wollaston, Ent. Soc. London, Trans., 434, 1873.

Dioedimorpha Broun, New Zealand Jour. Sci. 1:489, 1883.

Most of the species of this genus have been described from the Seychelles; others are recorded from Madagascar, Malay Peninsula, New Zealand, New Guinea, New Hebrides, Samoa, Tahiti, Hawaii, and one from Panama. The genus is abundantly represented among the Pacific islands, but few of the species have as yet been collected or described.

Most of the species that I have collected in nature have been attached to tree ferns in the fronds and trunks of which they often live in large colonies; other species, however, have been recorded from various palms.

33. *Stenotrupis tenuis*, new species (pl. 5, D).

Female. Derm rather uniform reddish brown, rather shiny, at least in part somewhat translucent.

Head slightly longer than broad, post-ocular constriction distinct, not so deeply impressed across dorsum as on sides and below; smooth and shiny, evidently not punctate behind constriction, minutely punctate beyond constriction, punctures separated by distances equal to or greater than their diameters; eyes subcontinuous in lateral outline with head, when measured from above, separated from the post-ocular constriction by twice the length of an eye, interocular area longitudinally evenly convex, twice as broad as an eye as measured from above. *Rostrum* just perceptibly longer than pronotum (21:19), evenly arcuate longitudinally, narrowed on sides from base to about half way to antennae, then almost evenly expanded to antennae, thence slightly and evenly narrowed to about half way between antennae and apex, thence more rapidly enlarged to the apex, greatest apical breadth almost twice that of narrowest breadth between antennae and apex and equal to basal breadth at eyes; minutely punctate, smooth and shiny; antennae inserted at about basal fourth, distance between the insertion and eye twice longitudinal diameter of an eye as measured from side; scrobes evanescent behind. *Antennae* with scape reaching to middle of eye; first funicular segment as long as 2 plus 3, 2 longer than broad, 3 to 5 successively broader; club not as long as four preceding segments. *Prothorax* not quite one fourth longer than broad (1.5:1.9), broadest at about basal third, sub-pyriform, without a distinct subapical constriction, longitudinal dorsal outline flat from base to apex; disk minutely punctate, punctures separated by smooth, shiny interstices as broad or broader than punctures. *Elytra* more than three times as long as broad (4.3:1.6), slightly more than twice as long as prothorax (4.3:1.9), subparallel-sided in about basal three fourths; striae fine and shallow, their punctures close, crenulating sides of intervals and about as broad as intervals; intervals rather shiny, evidently without setae except on declivity and there with numerous, long, erect hairs. *Legs* with tibial uncini well developed and with a tooth at front and hind edges of inner apical angles; third tarsal segment not bilobed, hardly broader than second. *Sternum* finely alutaceous, prosternum about three times as long as longitudinal diameter of a coxa in front of coxae and about twice as long as a coxa behind, at most minutely punctate, intercoxal process about four fifths as broad as a coxa; mesocoxae separated by about one and one fourth times breadth of a coxa; metasternum more densely and distinctly punctate at sides than in middle and with short, fine hairlike setae on more densely punctate areas, about four times as long between mid and hind coxae as breadth of a mesocoxa, metacoxae one half as widely separated as mesocoxae. *Venter* tumid, minutely punctate; setae distinct only at sides and on fifth ventrite; sutures arcuate; fifth ventrite densely punctate. Length, 1.5 mm.; breadth, 0.4 mm.

Holotype female taken at Yigo, from rotten stump, Nov. 13, 1936, Swezey.

This small species may be distinguished by the combination of its rather shiny derm, long slender rostrum, the antennae inserted at twice the length of an eye beyond the eyes and the long hairs at the apex of the elytra. It has in the long hairs on the elytra a character in common with the Hawaiian *Stenotrupis pritchardiae* (Perkins) (= *Pentarthrum pritchardiae* Perkins, B. P. Bishop Mus., Bull. 31: 57, 1926, from Nihoa), but *S. pritchardiae* is a very different insect and not allied to this species. The distance between the eyes and the insertion of the antennae on *S. tenuis* is unusually great, and is not found on any of the other species known to me, most of which have the antennae inserted in the rostrum at no greater distance from the eyes than the length of an eye.

In addition to the holotype of this species, there is another specimen of *Stenotrupis*, which was taken at light at Piti, July 5, 1936 by Swezey; the status of this specimen I cannot determine without additional material. It is much like the holotype, but has some striking differences, some of which might be taken as sexual. However, the specimen is, I believe, also a female, as it has a typical female rostrum and abdomen. The most outstanding difference between the two specimens is that this unnamed example has the antennae inserted at only about the length of an eye in front of the eyes instead of much more distantly. It also has the cephalic constriction deeper than on *S. tenuis* and the area in front of the constriction is more coarsely punctate. Only a larger series containing both sexes will enable me to decide whether this specimen represents a new species or is but a form of *S. tenuis*.

Genus **TYTTHOXYDEMA**, new genus

Body slender, subcylindrical, nitid, minutely setose. *Head* subconical, as broad as long, with a distinct postocular constriction situated well behind eyes interrupting both dorsal and lateral surfaces; eyes moderately large, lateral, not strongly protuberant, as widely separated below as above, separated from prothorax by a distance distinctly greater than length of an eye; interocular area slightly narrower than extreme base of rostrum. *Rostrum* almost as long as head, about half as long as prothorax, slightly arcuate, stout, laterally expanded from base to apex; antennae inserted close to base at less than diameter of an eye in front of eyes; scrobes passing downward along the fore edges of the eyes. *Antennae* with scape reaching to or slightly behind hind margins of eyes, longer than funicle; funicle 5-segmented, first segment longer than any of others, the following successively shorter; club ovate, slightly shorter than funicle, its basal segment setose. *Prothorax* sub-pyriiform, longer than broad, subapically constricted, subtruncate at base. *Scutellum* visible, small. *Elytra* slightly broader than base of prothorax at humeri, sub-parallel-sided, regularly punctate-striate, 10-striate, tenth stria complete. *Wings* fully developed. *Legs* with clavate femora edentate, hind pair not reaching apex of second ventrite; tibiae not much longer than tarsi, compressed and expanded distally, fore pair angulate beyond middle below, strongly uncinate and mucronate; tarsi with second segment about as long as 3, 3 not bilobed, but slightly broader than 2, 4 slender and projecting beyond apex of 3 for a distance greater than length of 2 plus 3. *Sternum* with anterior margins of fore coxae near transverse median axis of prosternum, intercoxal process slightly narrower than breadth of a coxa; mesosternum flat in front of intercoxal process which is slightly broader than breadth of a mesocoxa; metasternum between mid and hind coxae about as long as first two ventrites behind a coxa; metacoxae separated by about transverse diameter of a metacoxa; metepisternum distinct. *Venter* with intercoxal process of first ventrite arcuate; ventrites 1 and 2 fused, 1 about as long as 2 plus 3 at sides, 3 and 4 subequal, together slightly shorter than 2 and about as long as 5.

Genotype: *Tytthoxydema exilis*, new species.

This genus is erected for a puzzling species, which, although having a 5-segmented funicle, should probably be placed in association with *Oxydema*, *Aphanocorynes*, and their allies. Sir Guy Marshall has described a genus (*Pentoxydema*, 1938) in the same group which also has 5-segmented antennae. It was, however, erected for a large, different type of cossonid. This situation is similar to that of *Dryotribodes*, because *Tytthoxydema* would be placed in a different subtribe from *Oxydema* according to the existing classification.

34. *Tytthoxydema exilis*, new species (pl. 5, I).

Derm piceous, moderately shiny; dorsal setae pale, inconspicuous.

Head as long as broad, distinctly constricted on sides behind eyes, constriction only slightly, shallowly and broadly interrupting dorsal outline, but not impressed as a suture across dorsum, longitudinal dorsal outline of crown and front sinuous, constriction, when measured from above, length of an eye behind eyes, three fifths to three fourths length of an eye behind eyes on sides; area behind constriction impunctate or with a few, scattered, minute, hardly discernible punctures, area beyond constriction, and interocular area, densely and evenly punctate, punctures not large, individually distinct and usually separated by interstices about as broad as punctures, punctures bearing minute, specklike setae; interocular area slightly less than three times as broad as an eye as viewed from front; eyes separated by about one and one half times length of an eye from prothorax on sides. *Rostrum*, measured from side, as long as head, two fifths as long as prothorax; emarginate on sides between eyes and antennae, thence rather strongly expanded and rather straight-sided to near apex, broadest apical breadth about one third narrower than narrowest basal breadth in male, less strongly expanded in female; puncturation finer and much less distinct than that of interocular area, dull and coarsely reticulate in male, shiny in female; antennae inserted at about basal fourth at about half the breadth of an eye in front of eyes; scrobes passing rapidly down to lower anterior edge of eyes, but not continued much past fore margins of eyes. *Antennae* with scape reaching slightly, but distinctly behind posterior margin of eye to a point about half way between eye and cephalic constriction; first funicular segment stout, subconical, about as long as 2 plus 3, 2 hardly longer than 3, 3 to 5 moniliform and subequal; club slightly longer than four preceding segments. Prothorax slightly to more than one sixth longer than broad, broadest near basal third, base slightly constricted, thence arcuately narrowing to distinct, well-defined, subapical constriction which hardly interrupts the almost straight longitudinal dorsal contour; dorsal puncturation rather similar to that on front of head, punctures rather small, dense, even, individually distinct, separated by interstices equal to about breadths of punctures, and bearing specklike setae. *Elytra* somewhat more than twice as long as broad (6:2.25), more than twice as long as prothorax in the same proportions; striae well marked but not coarse, narrower than intervals, their punctures rounded or quadrate, coarser toward base and there often as broad or broader than intervals, each puncture bearing a flecklike seta, tenth stria approximated by ninth above metacoxa but evidently continued to apex; intervals flat or but slightly convex, at most very minutely punctate, and bearing hardly discernible setae, the ninth interval hardly swollen at its junction with third interval, hardly curved upward at apex and there about twice breadth of third interval from apex. *Legs* with tibiae rather evenly expanded from base to apex, base of hind pair about half as broad as apex, unci long, slender, well developed, tooth at inner apical angle well developed, slender and sharp; tarsi with third segment slightly broader than second, truncate apically below, not bilobed, fourth segment almost as long as three preceding segments together. *Sternum* with prosternum broadly impressed in middle in front of coxae, not quite twice as long in front of coxae as behind coxae, intercoxal process slightly narrower than breadth of a coxa, densely punctate, more coarsely so in front of coxae, punctures not tending to be laterally confluent; mesosternum on same plane as metasternum, intercoxal process punctate, not quite twice as broad as a mesocoxa; metasternum densely punctate, punctures rather similar to those on pronotum, but slightly larger and individually more distinct, distance between mid and hind coxae three times as long as breadth of a mesocoxa, metacoxae separated by slightly more than breadth of a mesocoxa. *Venter* with first two ventrites with similar or somewhat less dense puncturation than metasternum, first impressed down middle in male, tumid in female; ventrites 2 and 3 with a row of punctures at their bases only; ventrite 5 transversely impressed before apex, finely punctate, coarsely reticulate, setose behind. Length, 1.75-2.25 mm.; breadth, 0.5-0.6 mm.

Holotype male in National Museum, allotype female in Bishop Museum, 14 paratypes and two broken specimens collected from under bark of a dead tree, Sept. 1937, Oakley, nos. 143 and 37-2615.

Genus RHINANISODES, new genus

Body subcylindrical, subdepressed, nitid, minutely setose. Head subconical, about as long as broad, with a postocular constriction interrupting both dorsal and lateral surfaces well behind eyes; eyes moderately large, but not protuberant, about as widely separated below as above, separated from prothorax by a distance about equal to greatest diameter of an eye; interocular area approximately as broad as extreme base of rostrum. Rostrum as long as head, half as long as prothorax, slightly arcuate, subcylindrical, but slightly expanded laterally from base to apex; antennae inserted close to base at less than greatest diameter of an eye in front of eyes; scrobes passing downward along fore edges of eyes. Antennae with scape passing distinctly behind hind margins of eyes when at rest, about as long as funicle plus club; funicle 5-segmented, the two basal segments longer than any of the following three which are transverse; club ovate, first segment pilose. Prothorax sub-pyriform, about as broad as long, subapically and subbasically constricted; base subtruncate. Scutellum visible, distinct. Elytra with angulate humeri slightly but distinctly broader than base of prothorax, subparallel-sided, regularly punctate-striate, 10-striate, tenth stria complete. Wings evidently fully developed. Legs with femora strongly clavate, edentate; tibiae compressed, expanded distally, fore pair not distinctly angulate before apex below, strongly uncinate and mucronate; tarsi with second segment about as long as, but slightly narrower than third which is not bilobed, fourth segment extending beyond third for a distance greater than length of second and third segments combined. Sternum with distance between anterior margins of fore coxae and apex of prosternum about twice as long as corresponding area behind coxae, intercoxal process about twice as broad as a fore coxa; intercoxal process of mesosternum broad and flat, as broad as intercoxal process of prosternum and about twice as broad as a mesocoxa; metasternum between mid and hind coxae almost as long as first two ventrites behind a coxa, metacoxae separated as widely as fore coxae or breadth of a metacoxa; metepisterna narrow. Venter with intercoxal process of first ventrite subtruncate, first two ventrites fused, first almost as long as 2, 3, and 4 together along the median line or as long as 2 plus 3 at sides; 3 and 4 subequal in length and together almost as long as 2 or 5.

Genotype: *Rhinanisodes planicollis*, new species.

This genus has been erected for another puzzling and difficult species only after considerable thought and comparative work, and then with some diffidence. The genotype appears at first sight to belong to the New Zealand genus *Rhinanisus* Broun, 1883, but it cannot be assigned to that genus if the characters used by other specialists are to be considered generically valid, for the coxae are widely separated and the scape of the antenna surpasses the hind margin of the eye. *Rhinanisodes* is also closely allied to the New Zealand *Macroscytalus* Broun, but that genus has a shorter antennal scape and longer club, as well as other differences. The genotype of *Rhinanisodes* closely resembles *Macroscytalus remotus* Sharp. On *Rhinanisus* the coxae are narrowly separated, and the scape reaches only to the fore edge of the eye. *Rhinanisodes* seems to be intermediate between *Rhinanisus* and *Tytthoxydema*, and I at first considered that it might be placed in *Tytthoxydema*. However, the fore coxae are less widely separated than the breadth of a fore coxa on

Tytthoxydema, whereas on *Rhinanisodes* they are twice as widely separated, and the other coxae are as widely separated. On *Tytthoxydema* the eyes are much farther from the anterior margin of the prothorax than the greatest diameter of an eye, but on *Rhinanisodes*, the eyes are placed closer to the prothorax. In addition to the New Zealand species of *Rhinanisus*, Heller recorded (1916) two undescribed species from New Caledonia, and in 1938 Hustache described one from Argentina. The Argentine insect should be carefully restudied to ascertain its correct generic position.

35. *Rhinanisodes planicollis*, new species (pl. 5, G).

Male: derm black, moderately shiny, appendages diluted with red, setae pale, inconspicuous.

Head not quite as long as its basal breadth, distinctly constricted on sides behind eyes, constriction feebly impressed across dorsum and only slightly interrupting continuous and otherwise evenly convex longitudinal dorsal contour of crown and front, when measured from above, the constriction length of an eye behind eyes as measured from above and only half length of an eye behind eyes as measured from side; area behind constriction minutely punctate, area beyond constriction and interocular area densely punctate, punctures small, their interstices narrow, some tending to be longitudinally confluent; interocular area twice as broad as breadth of an eye measured from above, usually slightly depressed; eyes separated from prothorax by length of an eye. Rostrum slightly arcuate, as long as head, not quite half as long as prothorax, evenly expanded to antennae, thence slightly concavely expanded to apex, greatest apical breadth only about one sixth greater than narrowest post-antennal breadth; puncturation similar to that on interocular area, but finer beyond antennae, punctures usually distinctly longitudinally confluent behind antennae; antennae inserted slightly behind middle, distance between insertion and eye three fourths or about as long as length of an eye; scrobes narrow, their upper margins touching lower front edges of eyes, but scrobe hardly continued past fore margin of eye. Antennae with scape reaching well past hind margin of eye to cephalic constriction; first funicular segment stouter than 2 and about as long as 2 plus 3, 2 about as long as 3 plus 4, 3 to 5 successively more transverse, 5 about one fourth broader than 3; club as long as four preceding segments. Prothorax pyriform, distinctly longer than broad (2.5:2.2), broadest at about basal third, base truncate, strongly rounded on sides, rapidly narrowed beyond middle of apex, subapical constriction not very deeply impressed, as viewed from above, apex only slightly more than half as broad as greatest breadth of pronotum, disk distinctly depressed, hardly arcuate longitudinally, subapical constriction shallowly, but usually rather distinctly impressed across dorsum; puncturation dense throughout, punctures moderate in size, their interstices narrower or about as broad as their diameters. Elytra somewhat more than twice as long as broad (5:2.25), twice as long as prothorax, subparallel-sided in basal two fifths, thence arcuate to broadly rounded apex; striae well defined, slightly narrower than intervals on disk, their punctures broader than grooves and crenulating sides of intervals, tenth stria approximated by ninth above metacoxa, but continued narrowly to apex; intervals slightly convex, each set with a row of minute punctures bearing minute, hardly discernible, flecklike setae, ninth interval costiform beyond second ventrite and there almost straight and not curved upward, joining third interval at less than breadth of interval from apex. Legs with tibiae laterally compressed and expanded from base to apex, unci strongly developed and with a well-developed tooth at inner apical angle; tarsi with third segment slightly broader than second, truncate distally below and not at all lobed, fourth segment slender and about as long as preceding segments together. Sternum with prosternum almost twice as long in front of coxae as behind coxae, intercoxal process about twice as broad as breadth of a coxa; densely punctate, punctures laterally confluent in front of coxae; mesosternum on same plane as metasternum, intercoxal process twice as broad as

a coxa; metasternum densely punctate, interstices usually narrower than their diameter, about three times as long between mid and hind coxae as breadth of a mesocoxa; metacoxae separated by twice breadth of a mesocoxa. *Venter* with first two ventrites rather densely set with small punctures, first broadly impressed in male; ventrites 3 and 4 coarsely punctate in their basal halves; ventrite 5 densely minutely punctate, finely setose. Length, 1.7-1.8 mm.; breadth, 0.5 mm.

Holotype male and one male paratype taken at Yigo, from "dead small leaf *Ficus*", Oct. 18, 1936, Swezey; and one male paratype, Mt. Alifan, found under dead bark of breadfruit, June 21, Usinger.

Genus **HIMATINUM** Cockerell

Himatium Cockerell, Ent. News 17: 243, 1906.

Himatium Wollaston (homonym, not Clark, 1860), Ent. Soc. London, Trans., 436, 1873.

This genus contains 14 species recorded from Africa, Madagascar, the Seychelles, India, Java, and one each in North and Central America. The North American *Himatium errans* LeConte is said to be an inquiline in the galleries of the scolytid *Ips grandicollis* (Eichhoff) under the bark of yellow pine.

In addition to two Javanese species, the following new species is the only one thus far recorded from a Pacific island.

36. **Himatium bisetosum**, new species (pl. 4, G).

Derm coarsely reticulate, dull reddish brown to piceous black; setae conspicuous, white or yellowish white.

Head without a postocular constriction, only one third as long on sides from prothorax to fore margins of eyes as basal breadth; eyes oval, about four sevenths as broad as high, obliquely placed, their hind margins touching prothorax, separated by not quite their heights below (6:7), their dorsal edges reaching to about half way between upper margin of scrobe and top of rostrum; top of head meeting rostrum above top of eye, separation well marked and angulate; crown coarsely reticulate, but shallowly and indistinctly punctate; sparsely clothed with fine, prostrate, anteriorly directed setae. *Rostrum* almost straight, but slightly arcuate in apical fourth, subcylindrical, four fifths as long as prothorax in female, two thirds as long in male, about as high as broad at antennae, subparallel-sided, slightly expanded at antennae, hardly expanded toward apex; conspicuously, closely, longitudinally strigulated; setae arising from striae, erect, clavate, coarser than those on crown; antennae inserted at slightly beyond basal fourth, dorsal margin of scrobe straight and touching dorsal fourth of eye, lower margin directed toward lower hind edge of eye, but not reaching eye. *Antennae* with scape shorter than funicle exclusive of club, touching front edge of eye; first funicular segment about one third longer than broad, triangular, as long as 2 plus 3 plus 4, 2 broader than long, 2 to 7 successively slightly broader; club not much broader than 7, as long as 3 to 7. *Prothorax* longer than broad (3:2.5), base and apex slightly convex, broadest between the basal third and middle, arcuately narrowing from base to feeble subapical constriction, constriction not or hardly marked across dorsum which is almost straight and flat in longitudinal dorsal contour; disk flattened, densely, shallowly punctate, punctures subconfluent and individually indistinct, interstices much narrower than their diameters; setae of two types, one type slender, more or less hairlike, decumbent and directed medially, the other sub-

clavate, erect or suberect, middle of the apex not setose. *Elytra* slightly more than twice as long as broad and slightly more than twice as long as prothorax, base subtruncate, but broadly and shallowly emarginate to scutellum, subparallel-sided to behind middle, thence broadly rounded to apex, without any irregularities; striae about as broad as intervals on disk, their punctures close, subquadrate, without evident setae, outer stria terminating above metacoxa or vaguely continued somewhat farther caudad; intervals flat or slightly convex, none conspicuously elevated, 9 evidently reaching 1 behind, 10 obliterated or obscure behind metacoxa, each interval bearing a row of two types of setae, one type erect and subspatulate, the other type decumbent, narrow and sharp, 2, 4, 5, and 7 sometimes with fewer erect setae than the others. *Legs* with numerous setae of two types, one finer and prostrate, the other coarser and erect; tibiae compressed, unci large and stout, evidently not mucronate; third tarsal segment as long as and about one third broader than 2, subtruncate at apex. *Sternum* densely, rather coarsely but shallowly punctate, punctures bearing decumbent or prostrate, mostly fine setae; prosternum three times as long before as behind coxae, intercoxal process slightly broader than a coxa; mesosternum on a continuous plane with metasternum, densely punctate, intercoxal process slightly broader than a coxa; metasternum twice as long between mid and hind coxae as breadth of intercoxal process of mesosternum, metacoxae separated by slightly more than mesocoxae. *Venter* with first two ventrites broadly depressed down middle in male, more tumid in female, puncturation and vestiture similar to that of the metasternum; ventrites 3 and 4 each with a row of coarse punctures at their bases and a row of fine punctures at their apices; ventrite 5 densely set with setiferous punctures. Length, 2.1-2.5 mm.; breadth, 0.70-0.75 mm.

Holotype male, allotype female, and one male paratype collected at Tarague, May 17, 1936, Usinger.

The peculiarly placed eyes together with the vestiture will readily separate this species from all of the other Guam Cossoninae. It greatly resembles the North American *Himatium errans* (LeConte) but the rostrum is longer and the cephalic, leg and rostral vestiture is shorter and less dense.

Genus DRYOTRIBODES, new genus

Body comparatively slender, derm coarsely sculptured, finely and sparsely setose. *Head* subconical, not quite as long as broad, with crown separated from front by a distinct dorsal impression which may or may not continue laterally as a conspicuous postocular constriction; eyes coarsely faceted, slightly to moderately protuberant, somewhat more widely separated below than above, separated from prothorax by more than length of an eye, interocular area narrower than base of rostrum. *Rostrum*, beyond eyes, distinctly longer than head, about two thirds as long as prothorax, at least twice as long as basal breadth of rostrum, subcylindrical and but slightly arcuate behind antennae, expanded, somewhat compressed and more strongly arcuate beyond antennae; antennae inserted at or slightly beyond middle and distinctly more than length of an eye in front of eyes; scrobes passing rapidly downward well below eyes. *Antennae* with scape reaching to or distinctly beyond hind margin of eyes, but directed well below lower margins of eyes when at rest, longer than funicle excluding club; funicle 7-segmented, first or first and second segments longer than any of the other segments which become successively more transverse; club elliptical, shorter than preceding part of funicle, its basal segment densely setose. *Prothorax* slightly longer than broad, subtubular, constricted before apex, subtruncate at base. *Scutellum* not visible. *Elytra* only slightly broader at base than base of prothorax, evidently nine- or ten-striate, some striae incomplete and irregular, usually some intervals cariniform. *Wings* evidently non-functional. *Legs* with femora moderately clavate, edentate, hind pair reaching almost to apex of second ventrite; tibiae not much

longer than tarsi, comparatively slender, unci and mucrones well developed; tarsi with second segment about as long as broad, third broader than second, entire, emarginate, or bilobed, 4 extending beyond 3 for a distance distinctly greater than length of 3. *Sternum* with fore coxae nearer hind margin than to fore margin of prosternum, intercoxal process distinctly narrower than breadth of a coxa; intercoxal process of mesosternum narrower or as broad as breadth of a mesocoxa; metasternum about as long between mid and hind coxae as length of first ventrite, metepisterna mostly concealed, at most narrowly exposed behind, metacoxae separated by more than longitudinal diameter of a coxa and narrowly separated from elytra, intercoxal process subtruncate. *Venter* with first two ventrites fused, 3 and 4 subequal, together shorter than either 2 or 5.

Genotype: *Dryotribodes obscurus*, new species.

This genus is closely allied to *Dryotribus* Horn, 1873, but it may be easily separated from that genus because of its 7-segmented funicle. The only major difference between *Dryotribodes* and *Dryotribus* is this antennal character. However, this difference is sufficient to place the two genera in two different subtribes, according to existing schemes of classification. The two genera obviously have a common ancestral relationship and their separation into different subtribes would be incorrect. The division of the Cossonini into major groups based on the number of segments in the funicle is a convenient one, but it is unnatural, because such closely allied genera as these are placed far from each other and their true relationships are obscure.

Sir Guy Marshall has kindly examined the genotype of this new genus and compared it with the British Museum material. He writes, "Among the 7-jointed genera it comes closest to *Pholidophorus* Woll. from Japan, but this is a winged genus with projecting shoulders . . ."

All of the species of *Dryotribodes* greatly resemble *Dryotribus* and one would place them in *Dryotribus* without hesitation if the antennae were not examined.

On the genotype, the third tarsal segments are deeply and unquestionably bilobed, but on *D. angularis* they are emarginate and on *D. denticulatus* they are almost entire and only slightly emarginate. This difference in the third tarsal segment is often of major importance, but here it breaks down to a specific character. On both *D. obscurus* and *D. angularis* the postocular constriction is conspicuously marked on the sides of the head, but on *D. denticulatus* the constriction is not indented on the sides and makes only the dorsum emarginate. On *D. angularis* the constriction is deeply and very sharply marked dorsally, laterally, and ventrally; *D. obscurus* is intermediate between this and *D. denticulatus*. On *D. angularis* the intercoxal process of the mesosternum is distinctly narrower than the breadth of a mesocoxa; on *D. denticulatus* it is about as broad as a coxa and on *D. obscurus* it is slightly broader (10:9). On *D. obscurus* and *D. angularis* the antennal scape is enlarged gradually from the base to the apex and has no distinct club. On *D. denticulatus*, however, the scape has a slender stalk and a distinct club. On *D. angu-*

laris the scape reaches the hind margin of the eye, on *D. obscurus* it extends behind the eye to the cephalic constriction, and on *D. denticulatus* it reaches past the cephalic constriction almost to the prothorax.

The discovery of representatives of this new genus at such widely separated localities as Guam and the Marquesas, over 5,000 miles to the southeast at the opposite sides of Oceania, is an example of extreme discontinuity of distribution. This discontinuity is surely not actual, however, because our knowledge of the absolute distribution of the Curculionidae is so incomplete at this early stage in the entomological exploration of the Pacific as to be misleading. Other species will probably be described from the intervening islands. Unfortunately, I do not now have access to the extensive collections of Cossoninae made by me in southeastern Polynesia in 1934. There may be other species in that collection.

KEY TO THE SPECIES OF DRYOTRIBODES

1. None of the discal elytral intervals conspicuously elevated more than the others, the fourth entire and as prominent as the others; third tarsal segment deeply bilobed; Guam.....37. *D. obscurus* Zimmerman.
At least the third and fifth elytral intervals elevated and more prominent than the others, fourth at least partially obscured, or incomplete and distinctly less prominent than the others; third tarsal segment not bilobed; Guam.....2
2. Antennal scape reaching only to the hind margin of eye, not extending beyond the cephalic constriction; cephalic constriction deeply and sharply marked entirely around the head; prothorax with a distinct subbasal constriction; second and third elytral intervals equally elevated on the declivity; Guam.....38. *D. angularis* Zimmerman.
Antennal scape reaching past the cephalic constriction; cephalic constriction poorly developed and not at all sharply and deeply impressed, prothorax without a subbasal constriction; second interval not elevated; the sides of the elytra appearing conspicuously denticulate from above; Marquesas.....
D. denticulatus Zimmerman.

37. *Dryotribodes obscurus*, new species (pl. 5, A).

Female: derm coarsely reticulate, dull black, antennae and tarsi diluted with red; setae pale; with a thin greasy incrustation.

Head as broad across eyes as length from pronotum to fore margins of eyes; shallowly constricted at about half the length of an eye behind eyes as measured from above, constriction only shallowly impressed across dorsum; almost impunctate behind constriction, but with a few microscopic punctures, coarsely, densely, subconfluently punctate beyond constriction, puncturation continuous with that of rostrum; eyes prominent, projecting for about half their breadths beyond lateral margins of head, subhemispherical; interocular area twice as broad as an eye as measured from above. *Rostrum* with longitudinal dorsal contour continuously and evenly arcuate with interocular area, five sevenths as long from fore margins of eyes to apex as prothorax and twice as long as basal breadth, subparallel-sided, but just perceptibly narrowed from base to antennae, thence expanded to apex, greatest apical breadth bearing the ratio 1.4 to 1.2 to the narrowest post antennal breadth; very densely and coarsely punctate throughout, punctures tending to be in part subconfluent, their interstices much narrower than their breadths and making surface rough; antennae inserted at about middle at twice the length of an eye from fore edge of an eye. *Antennae* with scape stout, reaching to, but not past cephalic constriction; first

funicular segment about one third longer than broad, as long as 2 plus 3, 2 longer than 3, 3 to 7 transverse, successively very slightly broader; club as long as the five preceding segments. *Prothorax* longer than broad (2.0:1.8), base truncate, apex slightly concave, slightly constricted on sides at base, thence evenly arcuate to well-marked subapical constriction; constriction not distinctly interrupting evenly arcuate longitudinal dorsal outline, broadest at about middle; puncturation coarse and dense, interstices coarsely reticulate, about half as broad as punctures on disk, discal punctures as broad as second funicular segment; setae decumbent, hardly discernible from above, but distinct when viewed from sides. *Elytra* coarsely reticulate, about twice as long as broad, two and one fourth times as long as prothorax, broadest behind middle, slightly arcuate near base, thence subparallel-sided, but evidently slightly expanded to apical third, thence constricted at apical fourth; striae coarse and deep, broader than intervals, their punctures large, coarse, subquadrate, not distinctly setose; intervals regular on disk, convex, more so behind, each bearing a row of distinct, decurved setae, sixth interval giving rise to three intervals above metacoxa, seventh interval, as counted at base, ninth as counted behind middle, prominently costiform behind third ventrite, joining third and reaching second at apex, but not interrupting lateral elytral outline. *Legs* with femora coarsely and densely punctured; tibial uncus and tooth at inner apical angle well developed; third tarsal segment one fourth broader than second, deeply bilobed. *Sternum* with prosternum coarsely, deeply and densely punctured, about two and one half times as long before coxal cavities as behind, intercoxal process slightly narrower than breadth of a coxa; mesosternum coarsely punctate and slightly broader between mesocoxae than breadth of a coxa, intercoxal process on same plane as metasternum; metasternum coarsely, deeply, closely punctured, not quite twice as long between mid and hind coxae as breadth of a mesocoxa, metacoxae separated for about length of metasternum between mid and hind coxae. *Venter* with first two ventrites tumid, but slightly depressed medially, puncturation coarse, deep, dense, and similar to that of metasternum; ventrites 3 and 4 each with a complete row of coarse, closely set punctures; ventrite 5 densely set with coarse punctures similar in size to those on first two ventrites. Length, 3.0 mm.; breadth, 1.1 mm.

Holotype female taken by Swezey from a rotten stem of *Barleria* at Piti, Sept. 26, 1936.

38. *Dryotribodes angularis*, new species (pl. 5, B).

Male: derm black with a thin greasy incrustation, denuded areas moderately shiny, appendages diluted with red.

Head narrower across eyes than length from pronotum to fore margins of eyes, sharply and deeply constricted on sides at about three fourths length of an eye behind eyes as measured from above, constriction continued deeply and angulately across dorsum; alutaceous but moderately shiny and impunctate behind constriction, very coarsely, densely, continuously punctate with rostrum beyond constriction; eyes not projecting much beyond lateral margins of head; interocular area hardly broader than breadth of an eye as measured from above. *Rostrum* continuous in longitudinal dorsal contour with front of head and almost straight in basal half, thence rather strongly arcuate to apex, four times as long as an eye from fore margins of eyes to apex, two thirds as long as prothorax, twice as long as its apical breadth, more than twice as long as its basal breadth, subparallel-sided, but very shallowly, just perceptibly concave from base to antennae, thence expanded and subparallel-sided to apex, the greatest apical breadth about one fifth broader than the narrowest post antennal breadth; very coarsely, densely, subreticulately, subconfluently punctured throughout; antennae inserted at slightly beyond middle at hardly more than twice length of an eye from eyes. *Antennae* with scape reaching hind margin of eye, and not extending to cephalic constriction; first funicular segment about one fourth longer than broad, about as long as 2 plus 3, 2 about as broad as long, slightly longer than 3, 3 to 7 successively broader, 7 almost twice as broad as 2; club slightly longer than five preceding segments. *Prothorax* distinctly longer than broad (3.2:2.5), broadest at and

beyond middle, base and apex subtruncate, subequally, prominently, and angulately constricted in front of base and behind apex, subparallel-sided between these constrictions, apex subtubulate beyond constriction, subapical constriction shallowly and broadly impressed across otherwise evenly arcuate dorsum; very coarsely and densely punctured, punctures much broader than their intervals, which when denuded, are shiny; setae inconspicuous. *Elytra* twice as long as broad, twice as long as prothorax, broadest at middle, arcuate on sides from base to apical fifth and there constricted, apex appearing emarginate on either side at second interval because of elevated ninth interval; striae deep and coarse, obviously broader than intervals, their punctures large, deep, coarse and mostly subquadrate, outer stria, the eighth connected across base conspicuous and distinct throughout its length to apex; intervals convex, moderately shiny where denuded, 2 and 3 appearing most prominent and somewhat more elevated than 1, 4 fragmented and almost obliterated by striae punctures, 6 not reaching much nearer base than metacoxa, the others not prominent near base, 8 represented by a trace above second ventrite only, 9 strongly elevated above fifth ventrite into a conspicuous, asperate, posterior callosity that reaches second interval at its apex and is separated from apical margin by outside stria; setae minute and inconspicuous. *Legs* with femora coarsely punctate; tibiae with uncini and teeth at inner apical angles well developed; third tarsal segment shortly bilobed, more emarginate than bilobed, one third broader than second. *Sternum* with prosternum coarsely and densely punctured throughout, twice as long in front of as behind coxae, intercoxal process only one third as broad as a coxa; mesosternal intercoxal process slanting upward in front, impunctate, about three fourths as broad as a coxa; metasternum with large, coarse, deep, close-set punctures, almost twice as long between mid and hind coxae as breadth of a mesocoxa, metacoxae separated by about twice breadth of intercoxal process of mesosternum. *Venter* with first two ventrites broadly concave, puncturation similar to that of metasternum but in part less coarse and deep; ventrites 3 and 4 with their posterior edges slightly crenulated with small punctures, otherwise impunctate; ventrite 5 coarsely and densely punctate, but impunctate at base and apex. Length, 2.4 mm.; breadth, 0.75 mm.

Holotype male collected at Yona, from dead leaves, May 29, 1936, Bryan.

In addition to the differential characters given in the key, this species differs from *Dryotribodes obscurus* by having the cephalic constriction deeper and more conspicuous, the prothorax more deeply constricted at base and apex, the ninth elytral interval much more strongly elevated behind thus making the apex of the elytra emarginate on either side, the fore and mid coxae are less widely separated and the third and fourth ventrites are not coarsely punctate across their disks.

Dryotribodes denticulatus, new species (pl. 5, C).

Female: derm reticulate, dull but somewhat shiny on more elevated areas, dull black, diluted with red, antennae and legs reddish; setae pale; with a thin, inconspicuous, partial incrustation.

Head conspicuously narrowed on sides from base to eyes, as broad across eyes as length from pronotum to fore edge of an eye; the postocular constriction not impressed on sides, but distinct across dorsum, constriction about the length of an eye behind eyes as measured from above; with only a few scattered punctures on crown behind constriction; coarsely densely, longitudinally confluent punctate beyond constriction, puncturation continuous with that of rostrum; eyes distinctly interrupting lateral contours of head, but not strongly protuberant, twice as widely separated above as breadth of an eye as measured from above, interocular area narrowing posteriorly. *Rostrum* evenly arcuate from postocular constriction to apex, about twice as long as head and five sevenths as long as prothorax, three times as long as its breadth at extreme base, gradually and slightly expanded from base to antennae, sides slightly concave, thence abruptly expanded, sides

thence shallowly concave to apex, apical breadth equal to that at antennae and almost one fourth wider than extreme base; very coarsely and densely, subconfluently and confluently punctate from base to half way between antennae and apex, thence polished and with small, shallow punctures to apex; antennae inserted at middle at about two and one half times longitudinal diameter of an eye from eyes; scrobes passing downward at a distance from eyes; their dorsal margins obsolete behind, scrobe itself evanescent behind. *Antennae* with scape long, reaching more than half way between hind margin of eyes and prothorax, to behind postocular constriction, rather abruptly clavate, almost as long as funicle plus club; funicle with segments 1 and 2 subequal in length, 2 not quite as long as 3 plus 4, 4 to 7 subquadrate, each successively very slightly broader, each with a whorl of long setae; club ovate, as long as preceding five segments, densely, evenly, finely setose throughout. *Prothorax* longer than broad (3.5:3), base subtruncate, without a distinct subbasal constriction, evenly arcuate, on sides from base to subapical constriction, longitudinal dorsal outline almost evenly convex from base to apex; coarsely and densely punctate throughout, punctures large, broader than interstices, reticulately placed, and bearing fine, hairlike, anteriorly inclined setae. *Elytra* twice as broad as long, somewhat more than twice as long as prothorax (4:1.7), broadest at apical third, arcuate on sides from base to about caudal fourth, but slightly interrupted at about basal third where ninth interval joins seventh, thence constricted, lateral outline made by seventh interval, outline thence continued and bluntly rounded by outer interval; striae about as broad as intervals, their punctures coarse; first two intervals plain, first with a few granules near apex, interval 3 elevated from base to apex and bearing a row of granules in caudal third and a few near base, 4 plain, not reaching past caudal fourth, 5 elevated from a distance about equal to space between it and third interval and terminating well before apex of 7, and bearing granules on elevated part, 4 and 5 not distinct individually at base, 6 more or less partially obliterated by punctures of adjoining intervals, 7 elevated, most strongly so behind point where it is joined by 9 and bearing a row of well-developed teethlike granules or tubercles that give sides of elytra their distinctive denticulate appearance when viewed from above, joining 4 or 3 well within caudal fourth, 8 slightly elevated, beginning in front of middle and terminating at about caudal fourth, 9 elevated and arising from 7 at about basal fourth, enclosing 8 and continued to apex to join 3, 10 obliterated by punctures of adjoining striae; each interval bearing a series of stiff, hairlike, posteriorly inclined, golden setae, most distinct on elevated intervals from whose tubercles they arise. *Legs* with femora and tibiae coarsely sculptured, with inclined, hairlike setae arising from punctures; tibial unci and mucrones well developed; tarsi with third segment one third broader than second, as broad as long, entire, very slightly emarginate at apex, not at all bilobed. *Sternum* with prosternum shallowly concave down middle behind apex, antecoxal area twice as long as postcoxal area, intercoxal process half as broad as a coxa; intercoxal process of mesosternum about as broad as a coxa; metasternum between mid and hind coxae slightly shorter than length of first ventrite behind a coxa, coarsely and densely punctured. *Venter* with intercoxal process of first ventrite broad and subtruncate, broader than transverse diameter of a coxa; first two ventrites coarsely and densely punctured throughout, with fine setae arising from hind edges of punctures; ventrites 2 and 3 each with a row of small punctures; ventrite 5 coarsely punctate and setose except for a transverse, impunctate basal band. Length, 2.75 mm.; breadth, 1.0 mm.

Marquesas Islands. Holotype female, Uapou Island, from a dead *Cyathea* frond, Nov. 28, 1931, LeBronnec.

This species is the most divergent of the three described because of its poorly defined cephalic constriction and long, clavate antennal scape. The denticulation on the seventh interval along the sides and the outer interval near the apex are distinct and give the sides of the elytra a characteristic appearance.

Genus **OXYDEMA** Wollaston

Oxydema Wollaston, Ent. Soc. London, Trans., 487-488, 1873.

Pseudolus Sharp, Roy. Dublin Soc., Trans. II, 3: 190, 1885. Synonym by Zimmerman, B. P. Bishop Mus., Occ. Papers 15 (25) : 286, 1940.

This genus includes seven species which, with the exception of the widespread *O. fusiforme*, are all confined to the Pacific from Sumatra eastward. Champion (Linn. Soc. London, Trans. II, 16: 484, 1914) says that *O. elongatum* Pascoe (Mus. civ. nat. stor. Genova, Ann. II, 2: 321, 1885) may be a synonym of *O. fusiforme* Wollaston.

KEY TO THE SPECIES OF OXYDEMA OF GUAM

1. Elytral striae deeply, coarsely, and conspicuously grooved from base to apex throughout; intervals with small but comparatively coarse and conspicuous punctures, transversely sculptured and not appearing smooth.....40. *O. fusiforme* Wollaston.
2. Elytral striae not or but shallowly impressed between the punctures on the disk, never conspicuously and deeply grooved throughout; intervals with microscopic punctures only and appearing smooth and polished.....41. *O. longulum* (Bohemian).

39. ***Oxydema fusiforme*** Wollaston (pl. 4, B).

Oxydema fusiformis Wollaston, Ent. Soc. London, Trans., 632, 1873.

Oxydema fusiforme Wollaston, Champion, Linn. Soc. London, Trans. II, 16: 484, 1914.

Pseudolus hospes Perkins, Fauna Haw. 2: 149, 1900.

This species is recorded from the Seychelles and Ceylon, and it has a wide distribution in the Pacific. It is probably found on most of the islands of Polynesia. Its dissemination has been accomplished mostly by the aid of commerce.

The following specimens are in the Guam collections before me: one labeled "Island of Guam", no. "1373", Fullaway; and 20 specimens taken from diseased papaya stalk, June 24, 1937, Oakley, no. 841.

40. ***Oxydema longulum*** (Bohemian), Zimmerman, B. P. Bishop Mus., Occ. Papers 15(25) : 287, 1940 (pl. 4, C).

Rhyncolus longulus Boheman, Eugenies Resa, 149, 1859.

Pseudolus longulus (Bohemian) Sharp, Roy. Dub. Soc., Trans. II, 3: 190, pl. 5, fig. 33, 1855.

This species is widely spread in eastern Oceania but has not heretofore been recorded from so far west as Guam. One specimen, Yigo, from a seed cluster of a palm (*Coccothrinax?*), Nov. 13, 1936, Swezey.

This species can be separated from *O. fusiforme* with the unaided eye because of its usually stouter form and smoother appearance. *O. fusiforme*

is more slender and its deeply grooved elytra and sculptured elytral intervals give it a distinctive appearance.

Genus APHANOCORYNES Wollaston, 1873

Aphanocorynes Wollaston, Ent. Soc. London, Trans., 489, 595, 1873.

This genus contains two Australian, one Lord Howe Island, and two Samoan species. One of the Samoan species is widespread, but it has been recorded only from Samoa. It is:

41. *Aphanocorynes humeralis* Marshall, Insects of Samoa 4(5) : 334, fig. 27, 1931 (pl. 4, D).

One specimen of what I believe to be this species was collected from pigeon peas at Barrigada, June 24, 1936, by Swezey. The following specimens are in the Bishop Museum collections: five, Fanning Island, Dec. 2, 1924, S. C. Ball; one, Palmyra Island, June 13, C. M. Cooke, Jr.; one, Washington Island, Aug. 18, 1924, L. A. Whitney; and one, Aunu'u Islet, Tutuila, Samoa, Feb. 1930, Fullaway. The species has heretofore been reported from only Upolu and Tutuila, Samoa.

This series of specimens appears to me to show intergradations of certain characters between *Aphanocorynes humeralis* Marshall and *A. savaiensis* Marshall. *A. savaiensis* was described from a unique, and I have not seen it.

SPECIES INDETERMINABLE

There is one badly mashed specimen among the National Museum material which appears at first glance to be without question a *Stenotrupis*. However, the antennal funicle has seven segments and the scrobes are different from those of *Stenotrupis*. The specimen bears the labels "Alameda Cal., R. G. Oakley, III-4-38 Guam 451" and "with Hawaii Clipper 38-9036." It is too badly damaged for description.

Genus EUTORNUS Wollaston, 1873

Eutornus, Ent. Soc. London, Trans., 492, 578, 1873.

This genus contains about 20 species distributed from Burma through the Philippines to Papua and is well represented in New Zealand. No species has been reported from Australia, and the new species described herein is the first described from Micronesia.

42. *Eutornus nigriceps*, new species (pl. 5, H).

Derm rather shiny above, reddish brown with head and rostrum mostly black, rostrum more diluted with red, apex of prothorax dark, elytra clouded with black in caudal fourth.

Head one fourth broader across eyes than the length of median line from pronotum to anterior margins of eyes; minutely punctate, punctures separated by interstices as broad or much broader than their diameters and each puncture bearing a minute, specklike seta; with a feeble, elongate interocular impression; slightly and inconspicuously constricted on sides at about half the length of an eye behind eyes, constriction not impressed across dorsum, longitudinal dorsal contour evenly and continuously arcuate with front and rostrum; interocular area three times the breadth of an eye as measured from above. *Rostrum* as long from front of eyes to apex as head from prothorax to front of eyes, less than half as long as pronotum, hardly longer than its basal breadth; sides almost straight and subparallel, but slightly broader beyond antennae than before; puncturation similar to that on head, but somewhat denser; epistome conspicuously emarginate and bidentate apically; inner lobe of gena projecting into a sharp point; antennae inserted at basal third at almost length of an eye in front of eyes; lower edge of scrobe reaching venter of rostrum on line with fore edge of eye, upper edge touching eye. *Antennae* with scape rather strongly bent upward at about middle to curve around lower edge of eye, one third broader beyond middle than at base, reaching to slightly in back of eye to cephalic constriction; funicle with first segment about as long as 2 plus 3 plus 4, hatchet shaped, 2 to 7 subequal in length, but each successively slightly broader; club compressed, as broad as long, about as long as six preceding segments. *Prothorax* not quite one fourth longer than broad (3.8:3.2), base slightly sinuous, apex shallowly concave in middle, roundly expanded on sides from base to basal fourth, broadest at basal fourth, thence very slightly arcuately, almost straightly narrowed to strongly impressed subapical constriction at length of an antennal club from apex, apical part collar-like, constriction narrowly and slightly impressed across otherwise evenly and slightly longitudinally arcuate dorsal contour; derm shiny, punctures small, separated by interstices as broad or slightly broader than their diameters, their setae minute and specklike. *Elytra* two and one fourth times as long as broad, slightly more than two and one half times as long as prothorax; base emarginate at scutellum; subparallel-sided to apical fourth, thence broadly rounded to apex, without an obvious subapical constriction, apices conjointly emarginate; striae distinctly narrower than intervals, their punctures broader than grooves, comparatively shallow, lateral stria distinct and complete throughout; intervals flat or but slightly convex, each with a row of small punctures bearing microscopical setae, 1 one third narrower than 2 at middle, 9 becoming narrowly elevated and rather sharply cariniform above first ventrite, broader and costiform beyond third ventrite, joining 3 at about breadth of 2 from apex. *Legs* with femora stout, fore pair about half as broad as long, minutely punctate; tibiae strongly uncinate and mucronate, fore pair angulate on lower edge at slightly beyond middle, posterior face produced into a distinct conspicuous tooth at apical third; tarsi with third segment about one fourth broader than second, shallowly concave at the apex, claws slender, only slightly divergent. *Sternum* with prosternum broadly depressed down middle, closely set with small shallow punctures, three times as long before as behind coxae, intercoxal process slightly narrower than breadth of a coxa; mesosternum on same plane as metasternum, punctures shallow and separated by about their diameters, one fifth broader between coxae than breadth of a coxa; metasternum shallowly impressed on sides; punctures similar to or somewhat larger and deeper than those of mesosternum, two and one half times as long, between mid and hind coxae as breadth of intercoxal process of mesosternum, metacoxae separated about as widely as mesocoxae. *Venter* with first two ventrites with small punctures separated by one and one half or more times their diameters; ventrites 3 and 4 with their bases crenulated with punctures, their disks with a few minute punctures; ventrite 5 with coarser and denser punctures. Length, 3.1 mm.; breadth, 0.95 mm.

Holotype, evidently a female, Piti, from a rotten bamboo stump, Aug. 19, 1936, Swezey. (Since this was written I have seen another specimen collected at Piti by Oakley; it is 4.5 mm. in length.)

Sir Guy Marshall kindly compared this species with the British Museum material and says that it is closely allied to but much smaller than *E. ferrugineus* Wollaston, 1873 from the Papuan area. It cannot be confused with the three Philippine species described by Heller in 1913, because of its size, coloration, structure of rostrum, antennal scape and other characters. The tooth on the posterior face of the fore tibiae above the articulation of the tarsus is peculiar.

Genus MACRANCYCLUS LeConte

Macrancyclus LeConte, Am. Phil. Soc., Proc. 14: 338, 1876.

Haloxenus Perkins, Fauna Haw. 2: 148, 1900. Synonymy by Champion, Ent. Mo. Mag. II, 20: 123, 1909.

This genus was described as American by LeConte, but I have shown in my "Synopsis of the Genera of Hawaiian Cossoninae . . ." [B. P. Bishop Mus., Occ. Papers 15(25) : 285, 1940] that the genus belongs to the Pacific fauna and that the genotype of *Haloxenus* is a synonym of the genotype of *Macrancyclus*. In other words, the genotype of *Macrancyclus* is a Pacific insect that has been imported into America. The genus has remained monotypic until now, but the discovery of a new species on Guam indicates that there are more species to be found in the Pacific. [Since this was written, I have described a third species from Samoa (B. P. Bishop Mus., Occ. Papers 16(7) : 172-173, 1941)].

43. *Macrancyclus niger*, new species (pl. 5, F).

Male: derm black, shiny, polished, appendages diluted with red; setae minute, pale, and inconspicuous.

Head as broad across eyes as length of head from pronotum to anterior edges of eyes, conspicuously constricted on sides at or slightly more than the length of an eye, as measured from above, behind eyes, constriction continued broadly across dorsum; area behind constriction almost impunctate, with a few small punctures near constriction only, punctuation beyond constriction continuous with that of rostrum, punctures small and separated by interstices as broad or broader than their diameters; eyes not prominent, extending laterally only one sixth of length of an eye; interocular area almost three times as broad as length of an eye as measured from above, with only an inconspicuous, subobsolete median impression, longitudinal dorsal contour continuous with that of rostrum. *Rostrum* as long beyond eyes as side of head from prothorax to fore edges of eyes, almost one half as long as prothorax, somewhat more than twice as long as an eye, about as long as basal breadth of rostrum, lateral outlines almost straightly narrowing from hind margins of eyes to apex, narrowest apical breadth bearing a ratio of 13 to 15 with basal breadth; punctuation similar to and continuous with that of front, but becoming finer distally; upper margin of scrobe touching lower margin of eye, lower margin extending back at least as far as middle of eye; antennae inserted at about half length of an eye in front of eyes. *Antennae* with scape reaching behind eye to cephalic constriction, arcuate; first funicular segment somewhat longer than broad, somewhat longer than 2 plus 3, 2 to 7 transverse and each successively somewhat broader; club compressed, five sixths as broad as long, longer than preceding six segments. *Prothorax* longer than broad (3.5:2.8), base and apex subtruncate, rounded on sides in basal fourth, broadest in basal third thence slightly arcuately narrowing to rather shallow subapical constriction, constriction broadly and shallowly interrupting otherwise evenly, flatly arcuate longitudinal dorsal outline;

discal punctures about two or three times as large as those on head, separated by not more than their diameters. *Elytra* slightly more than two and one third times as long as broad, somewhat more than twice as long as prothorax, subparallel-sided to beyond basal two thirds, outline thence slightly sinuously rounded to apex but not distinctly constricted; striae narrow, deep, well defined, slightly narrower than intervals, their punctures close, well defined, bearing microscopic setae, outer stria narrowed above metacoxa and almost impunctate above first two ventrites; intervals convex, each with a row of minute punctures bearing microscopical setae, first interval widening at apex, and there the right one distinctly broader than the left, and about twice as broad as 2, 1 narrower than 2 on disk, 3 slightly more elevated on declivity than the others, 8 beginning at about posterior fourth of metasternum, 9 costiform behind second ventrite, fused with third and thence joining second at elytral apex. *Legs* with femora sparsely punctate; tibiae strongly uncinate and mucronate, a mucro about half as long as an uncus, fore pair angulate at middle of lower edge; third tarsal segment hardly broader than second, entire or but slightly emarginate distally, second segment about as long as third; claws strongly divergent. *Sternum* with prosternum closely punctate throughout, three times as long in front of as behind coxae, intercoxal process about five sevenths as broad as distance between coxa and hind margin of prosternum; mesosternum on same plane as metasternum, closely punctate, intercoxal process one fourth broader than a mesocoxa; metasternum closely punctate throughout, punctures separated by interstices as broad or broader than punctures on the disk but narrower than punctures on sides, median line sulcate from in front of middle to apex, not quite four times as long between mid and hind coxae as length of a mesocoxa, suture at mesosternum almost obliterated, metacoxae separated by breadth of a mesocoxa. *Venter* with first two ventrites shallowly impressed down middle, ventrite 1 with larger and more numerous punctures than 2, 2 mostly sparsely and minutely punctate, 3 and 4 with a row of coarser punctures at their bases and a few smaller scattered punctures; 5 impressed in distal half, with dense punctures similar to those on 1. Length, 2.75 mm.; breadth, 0.75 mm.

Holotype male, Talofofo, May 7, 1936, Usinger.

This species differs from *Macrancylus linearis* LeConte in being larger and shiny black instead of reddish brown or piceous, by having the prothorax evenly arcuate on the sides instead of sinuous, the head longer behind the eyes with the cephalic constriction deeper, more conspicuous, distinctly impressed across the dorsum and farther behind the eyes, and the prosternum is three times as long in front of as in back of the fore coxae instead of only twice as long.

Genus PHLOEOPHAGOSOMA Wollaston, 1873

Phloeophagosoma Ent. Soc. London, Trans., 23, 1873.

This genus, including *Amophorhynchus* Wollaston, 1873, which is considered a subgenus, contains 26 species described from Madagascar, the Seychelles, India, Japan, the Philippines, Java, Borneo, New Guinea, other islands of the Indo- and Austro-Malayan subregions, Australia, New Zealand, Samoa, and Hawaii. The following new species is the first recorded from Micronesia.

44. *Phloeophagosoma sulcirostre*, new species (pl. 5, E).

Male: derm shiny, almost entirely reddish brown excepting black eyes; setae minute, inconspicuous.

Head about as long from pronotum to front of eyes as basal breadth, with a distinct, narrow constriction four fifths the length of an eye behind eyes as measured from above, constriction not impressed across dorsum; area behind constriction shiny, impunctate, area beyond constriction and interocular area rather coarsely, densely, subconfluently punctate, interstices narrower than punctures; interocular area not quite four times as broad as breadth of an eye as measured from above, with a shallow, obscure median fovea between hind margins of eyes; eyes very slightly more convex than sides of head, five sevenths as long as high. *Rostrum* forming a continuous curve with front of head, three fifths as long from front of eyes to apex as length of prothorax, three times as long as an eye, almost twice as long as its basal breadth, subparallel-sided from base to apex but outline made slightly sinuous by a slight expansion at antennae, apex distinctly emarginate in middle; antennae inserted at basal third at a length of an eye from eyes; scrobes extending to middle, their upper margins ill defined, but evidently directed to lower margin of eyes, lower edges of scrobes well marked, terminating below about middle of eyes and there the breadth of apex of scape from eyes; with a fine groove running from top of scrobe above antennal insertion; puncturation dense, continuous with that of front, becoming distinctly finer distally. *Antennae* with scape extending behind eye to cephalic constriction; first funicular segment hardly longer than broad, as long as 2 plus 3, 2 subquadrate, 3 to 7 successively slightly more transverse; club as long as preceding five segments. *Prothorax* slightly longer than broad (2.7:2.5), base and apex subtruncate, broadest at basal third, thence arcuately narrowing to narrow subapical constriction, constriction evidently not interrupting almost straight longitudinal dorsal outline; densely and evenly punctured throughout, punctures medium large, separated by less than their diameters, without any impunctate areas; setae minute, hardly discernible. *Elytra* somewhat more than twice as long as broad, somewhat more than twice as long and slightly broader than prothorax, very slightly and gradually narrowed to apical third, thence more rapidly narrowed, thence broadly rounded at apex; striae distinct and well impressed, tenth complete, punctures crenulating sides of intervals, about as broad as intervals on disk, closely placed; intervals convex, each bearing a row of minute punctures giving rise to microscopical setae, 7 beginning above metacoxa, 9 costiform from above third ventrite to its apex joining 1 at apex. *Legs* with femoral setae minute; tibiae strongly uncinate and mucronate, a mucro about half as long as inner edge of an uncus; third hind tarsal segment entire, slightly broader than 2, slightly broader than long, third fore tarsal segment about twice as broad as 2. *Sternum* with prosternum densely, comparatively coarsely punctate, interstices narrower than punctures, broadly depressed down middle, more than twice as long in front of than behind coxae (11:4), intercoxal process five sevenths as broad as a coxa; mesosternum densely punctate, on same plane as metasternum, intercoxal process as broad as a coxa; metasternum broadly depressed down middle, coarsely and densely punctate throughout except between metacoxae, interstices narrower than punctures, twice as long between mid and hind coxae as intercoxal process of mesosternum, metacoxae as widely separated as mesocoxae. *Venter* with first ventrite broadly concave down middle, ventrites 1 and 2 less densely and coarsely punctate than metasternum; ventrites 3 and 4 with a basal row of coarse punctures and a row of small discal punctures; ventrite 5 densely set with small punctures. Length, 2.2 mm.; breadth, 0.65 mm.

Holotype male collected by Fullaway and bearing the number "1174" and without specific locality other than "Island of Guam."

This species is closely allied to *Phloeophagosoma carinirostre* Marshall (1931), from Samoa, but it differs from that species in being reddish brown instead of black in color, and the cephalic and rostral puncturation is denser and coarser and the upper margin of the scrobe is not distinctly defined as a carina to the eye as on *P. carinirostre*.

SUBFAMILY RHYNCHOPHORINAE

All the members of this subfamily found in Guam are adventitious, widespread species of economic importance.

TRIBE RHYNCHOPHORINI

Genus RHABDOCNEMIS Faust, 1894

45. *Rhabdocnemis obscura* (Boisduval) (pl. 7, A; misspelled *obscurus* on plate).

Calandra obscura Boisduval, Voy. Astrolabe, Ent. 2: 448, 1835.

Sphenophorus insularis Boheman, Eugenies Resa, Ins., 148, 1859.

Sphenophorus nudicollis Kirsh, Mus. Dresden, Mitt. 2: 156, 1877.

Sphenophorus promissus Pascoe, Mus. civ. stor. nat. Genova, Ann. II, 2: 300, 1885.

Sphenophorus tincturatus Pascoe, Mus. civ. stor. nat. Genova, Ann. II, 2: 301, 1885.

Sphenophorus beccarii Pascoe, Mus. civ. stor. nat. Genova, Ann. II, 2: 301, 1885.

Sphenophorus interruptocostatus Schaufuss, Horae Soc. Ent. Ross. 19: 204, 1885.

This is the common sugar-cane pest so widespread in the Pacific. Mr. Swezey took the following specimens: six, Piti, from sugar cane, Oct. 16, 1936; four, Agana, from royal palm, Oct. 3; and seven, Talofofo, from betel nut palm, June 17.

Genus COSMOPOLITES Chevrolat, 1885

46. *Cosmopolites sordidus* (Germar) (pl. 6, G).

Calandra sordida Germar, Ins. Spec. Nov., 299, 1824.

Sphenophorus striatus Fahraeus, in Schoenherr's Gen. Spec. Curc. 8(2): 251, 1845.

Sphenophorus cribicollis Walker, Ann. Mag. Nat. Hist. III, 4: 218, 1859.

This tropicopolitan pest of bananas is represented in the collection by numerous specimens taken at Dededo, Yona, Yigo, Mt. Alifan, and Barrigada from bananas in May, June, Aug. and Nov., by Swezey and Usinger.

Genus POLYTUS Faust, 1894

47. *Polytus mellerborgi* (Boheman) (pl. 6, I).

Sitophilus mellerborgi Boheman, in Schoenherr's Gen. Spec. Curc. 4(2): 976, 1837.

Calandra remota Sharp, Roy. Dublin Soc., Trans. III, 3: 183, 254, 1885.

Polytus mellenborgi (Bohemian) Faust, Mus. civ. stor. nat. Genova, Ann., 34: 353, 1894.

Sphenophorus musaecola Fairmaire, Soc. Ent. Belg., Ann. 42: 489, 1898.

Calandra mexicana Champion, Biol. Centr. Am. Coleopt. 4(7): 170, pl. 8, fig. 11, 1910.

This almost tropicopolitan species feeds in the corms of bananas. Specimens were taken at Dededo, from bananas, Yigo, Yona, and Mt. Alifan in May, Sept., and Nov., Swezey.

Genus CALANDRA, of authors

48. *Calandra oryzae* (Linnaeus).

Curculio oryzae Linnaeus, Amoen. Acad. 6: 396, 1763.

Curculio frugilegus De Geer, Mem. Ins. 5: 273, 1781.

Curculio granarius Stroem (not Linnaeus), Danske Vid. Selsk. Skrift. 2: 256, 1783.

Sitophilus oryzae (Linnaeus) Gyllenhal, in Schoenherr's Gen. Spec. Curc. 4: 981, 1837.

Cossonus quadrimaculatus Walker, Ann. Mag. Nat. Hist. III, 4: 219, 1859.

Sphenophorus quadriguttatus Montrouzier, Soc. Ent. France, Ann. III, 8: 910, 1860.

Most of the Guam specimens in the collection belong to the large variety, *zea-mais* (Motschulsky) and were taken at Agat, Piti, and Merizo; one was swept from grass and two were taken from corn.

I understand that formal application is to be made to the International Congress of Nomenclature to stabilize the long used name *Calandra* in place of *Sitophilus* Schoenherr.

Genus DIOCALANDRA Faust, 1894

49. *Diocalandra frumenti* (Fabricius) (pl. 6, H).

Calandra frumenti Fabricius, Syst. Eleuth. 2: 438, 1801.

Sitophilus stigmaticollis Gyllenhal, in Schoenherr's Gen. Spec. Curc. 4(2): 972, 1837.

Sitophilus subsignatus Boheman, in Schoenherr's Gen. Spec. Curc. 4(2): 973, 1837.

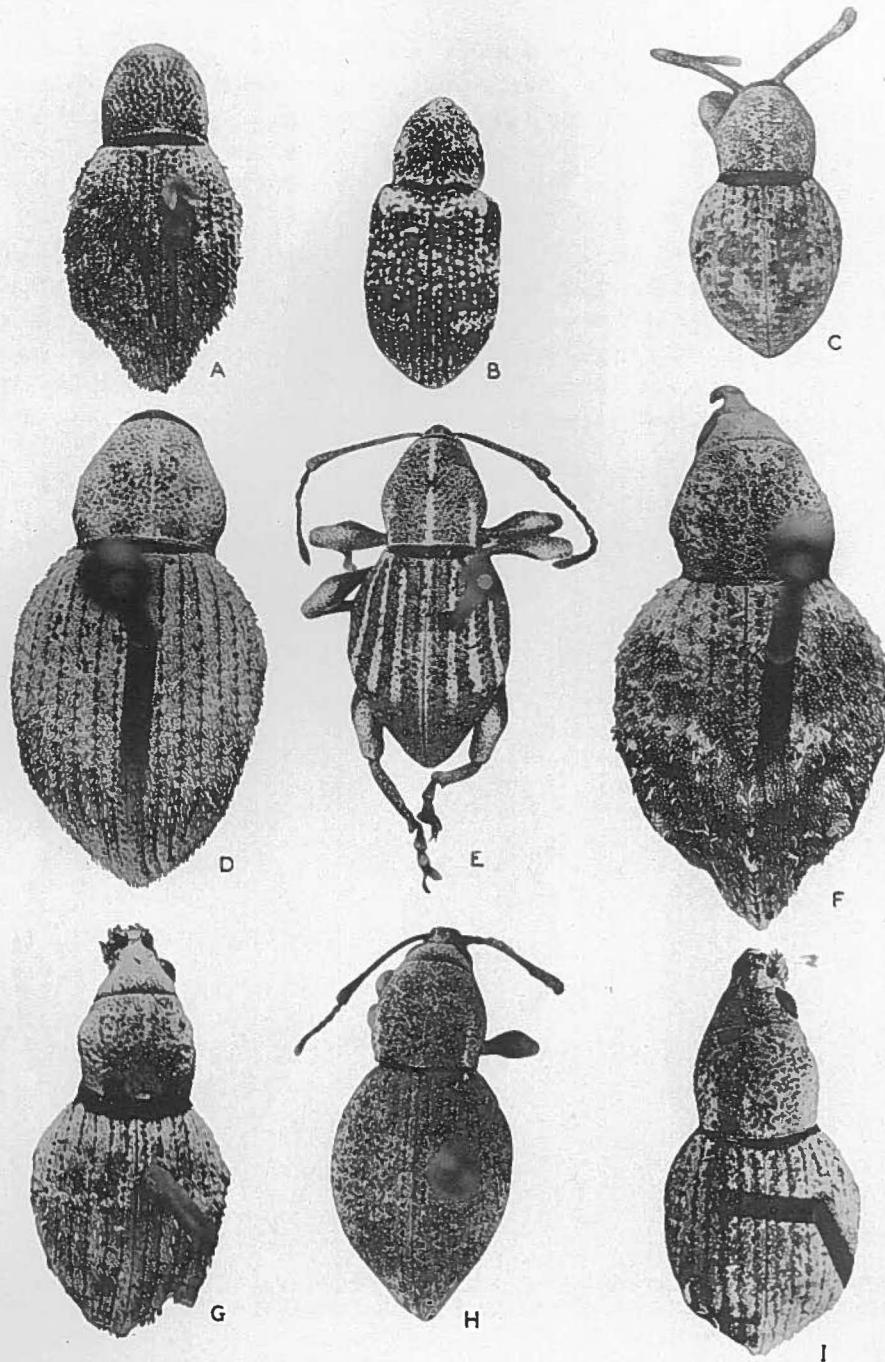
Sphenophorus cruciger Motschulsky, Etud. Ent. 7: 69, 1858.

Calandra punctigera Pascoe, Mus. civ. stor. nat. Genova, Ann. II, 2: 305, 1885.

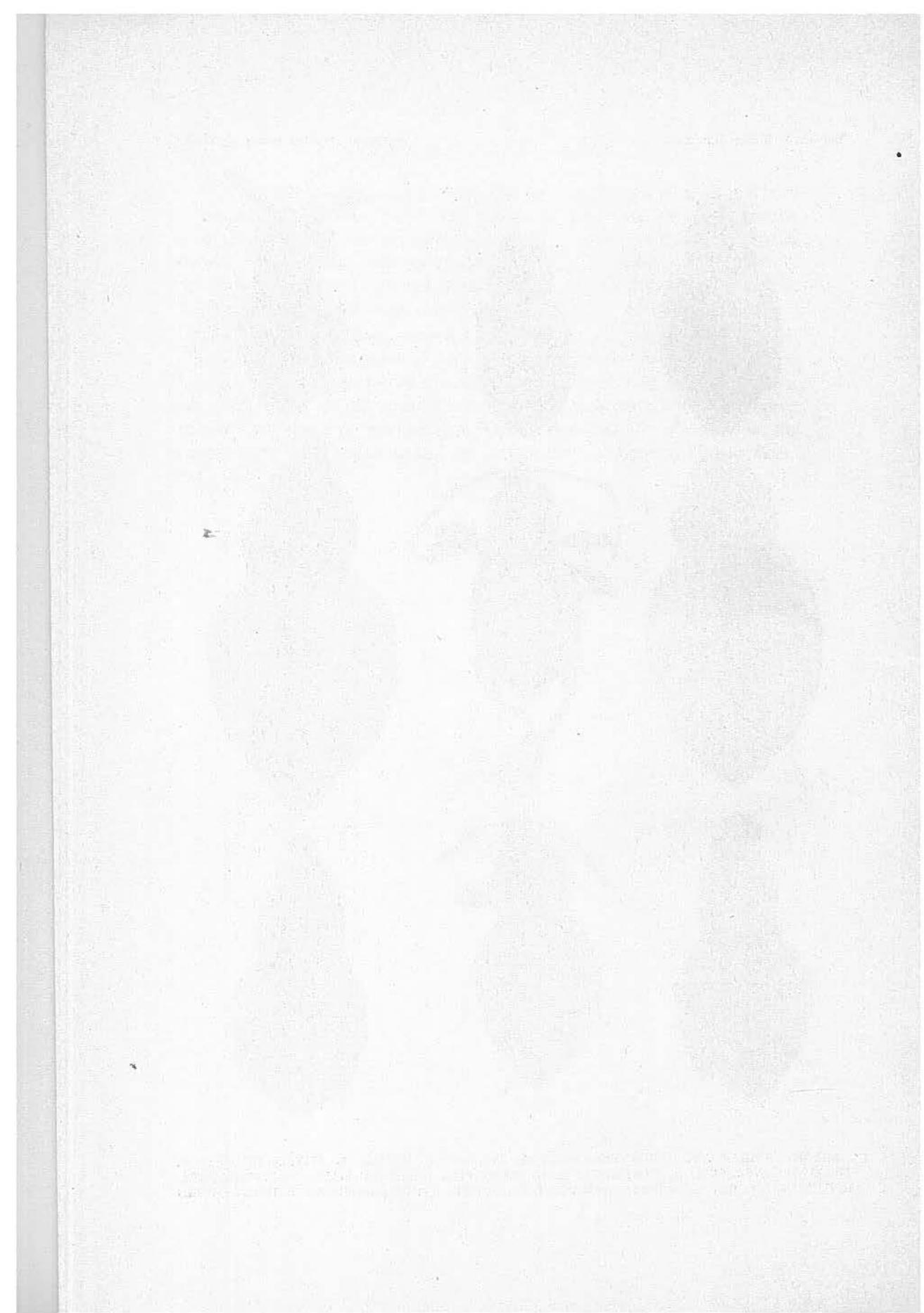
Calandra sechellarum Kolbe, Zool. Mus. Berlin, Mitt. 5: 46, 1910.

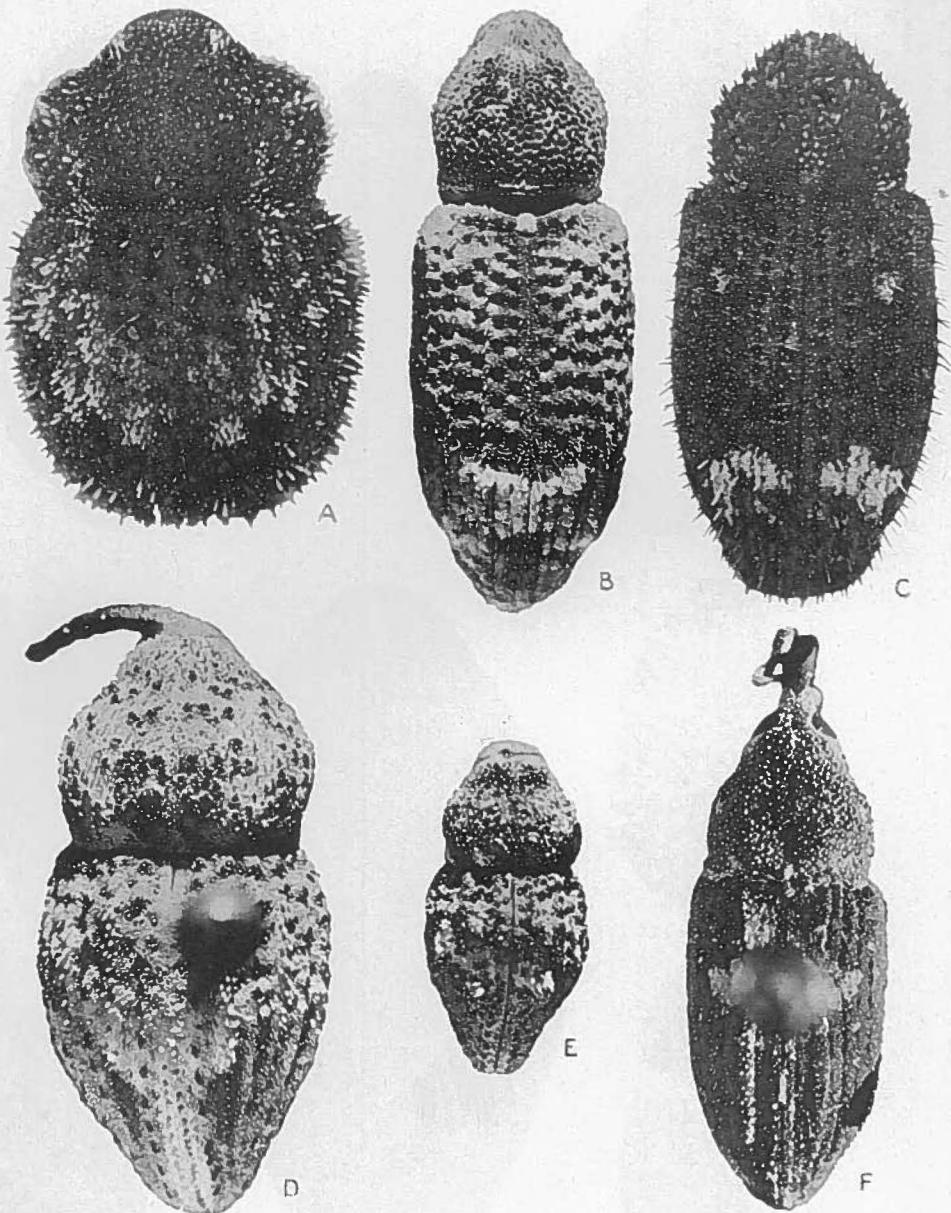
This coconut insect has a wide distribution from Tanganyika, East Africa to Samoa in Polynesia. The Guam specimens before me were collected by Bryan, Swezey and Usinger from coconuts in Inarajan in May and Yigo in November, and Swezey took one specimen from a royal palm at Agana, Oct. 3. The National Museum material contains 21 specimens taken Sept. 7, 1938, "in coconut branch with wind injury" by Oakley.

This species has been recorded from Guam as *Diocalandra taitensis* (Guérin-Méneville), because of confusion in the identification of the species. *D. taitensis* is a redder species with much less black coloring, it has a broader, flatter, differently shaped prothorax on which the interstices are very coarsely reticulate and make the surface dull. On *D. frumenti* the interstices on the pronotum are finely reticulate and the surface has a moderately shiny appearance.

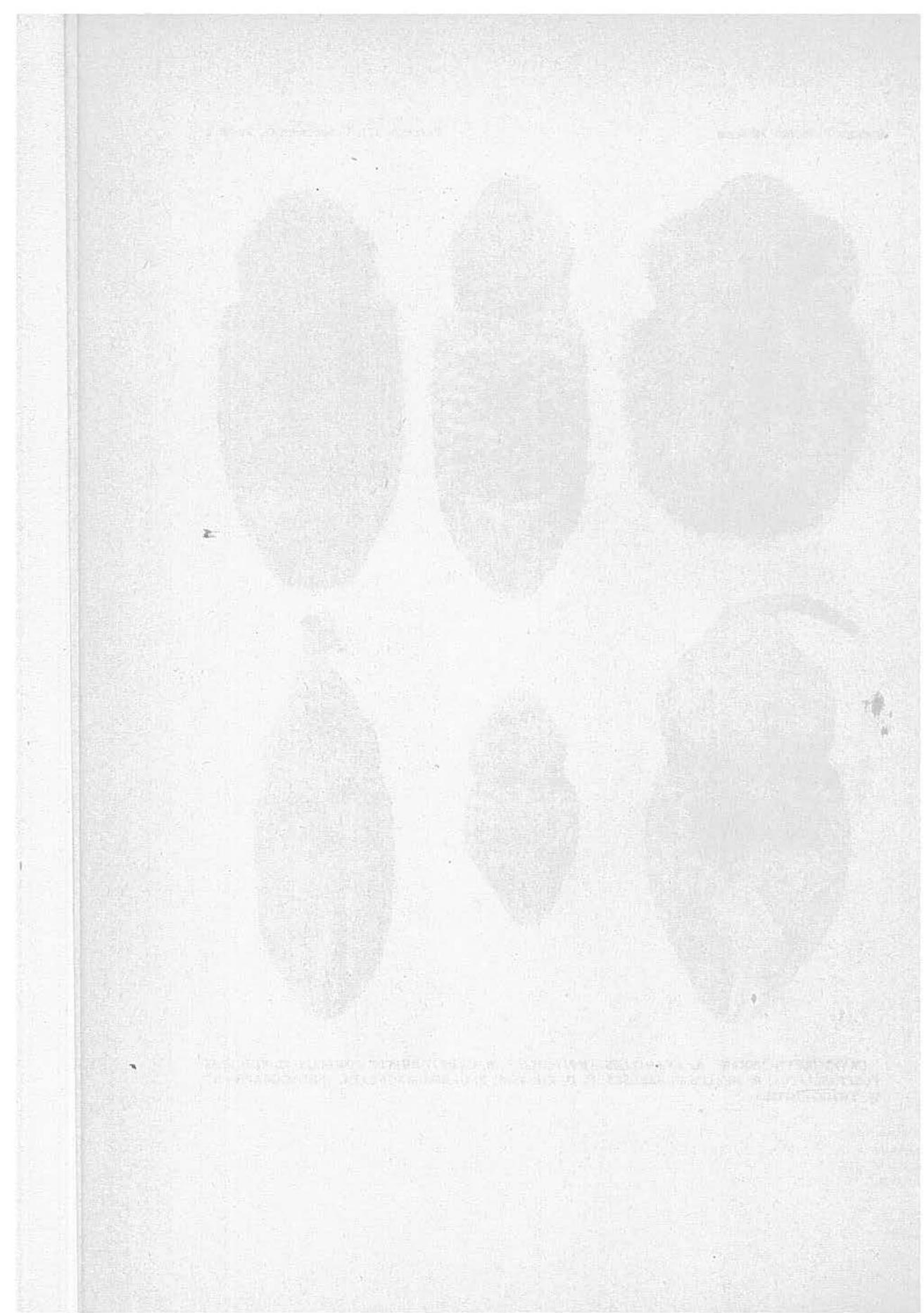


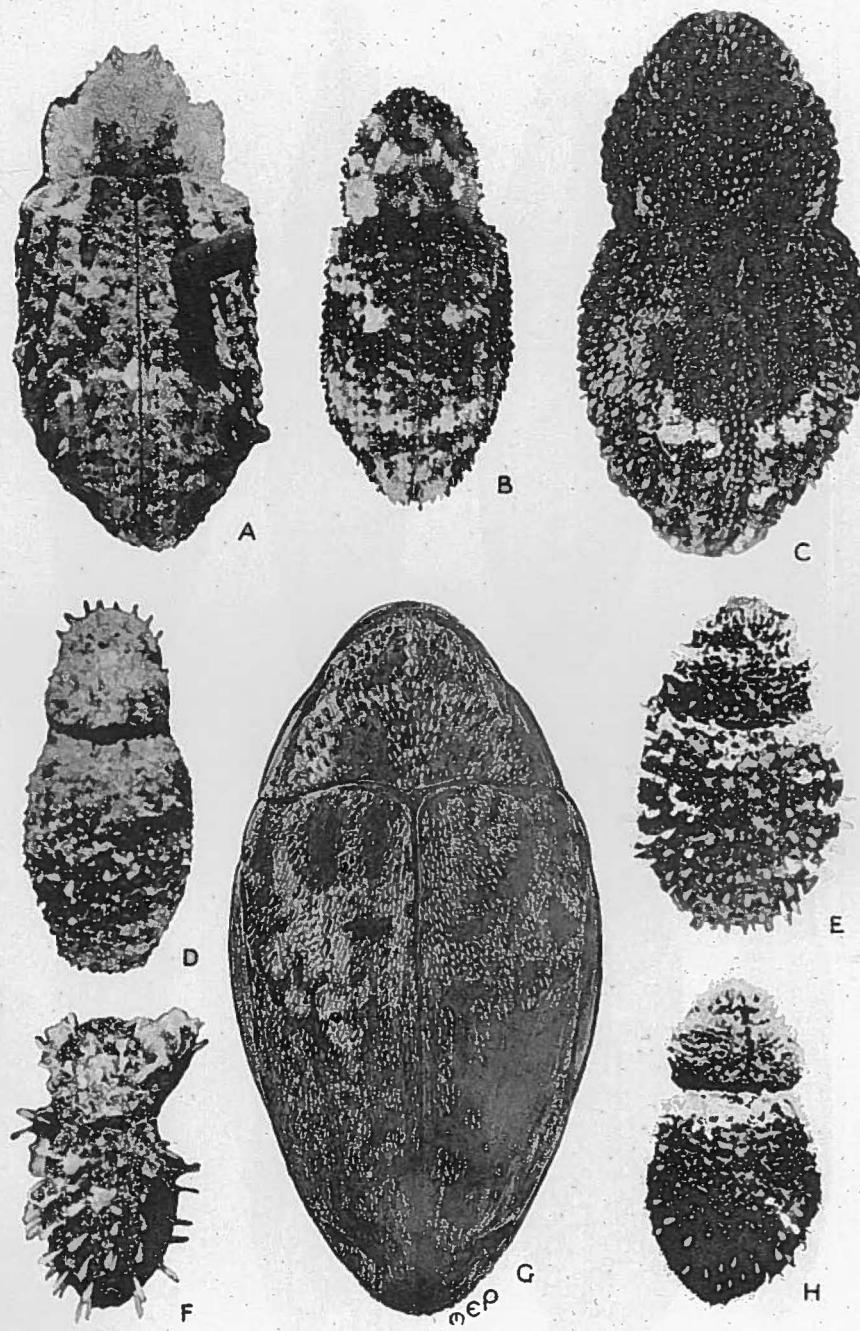
BRACHYDERINAЕ AND OTIORHYNCHINAE. A, *TRIGONOPS IMPURA*; B, *VITICIS GUAMAE*; C, *TRIGONOPS INCRINITA*; D, *T. HIRSUTA*; E, *T. INAEQUALIS*, HOLOTYPE MALE; F, *T. INUSITATA*; G, *T. VULGARIS*; H, *T. INAEQUALIS*, FEMALE; I, *T. CONVEXA*. (PHOTOGRAPHS BY W. TWIGG-SMITH.)



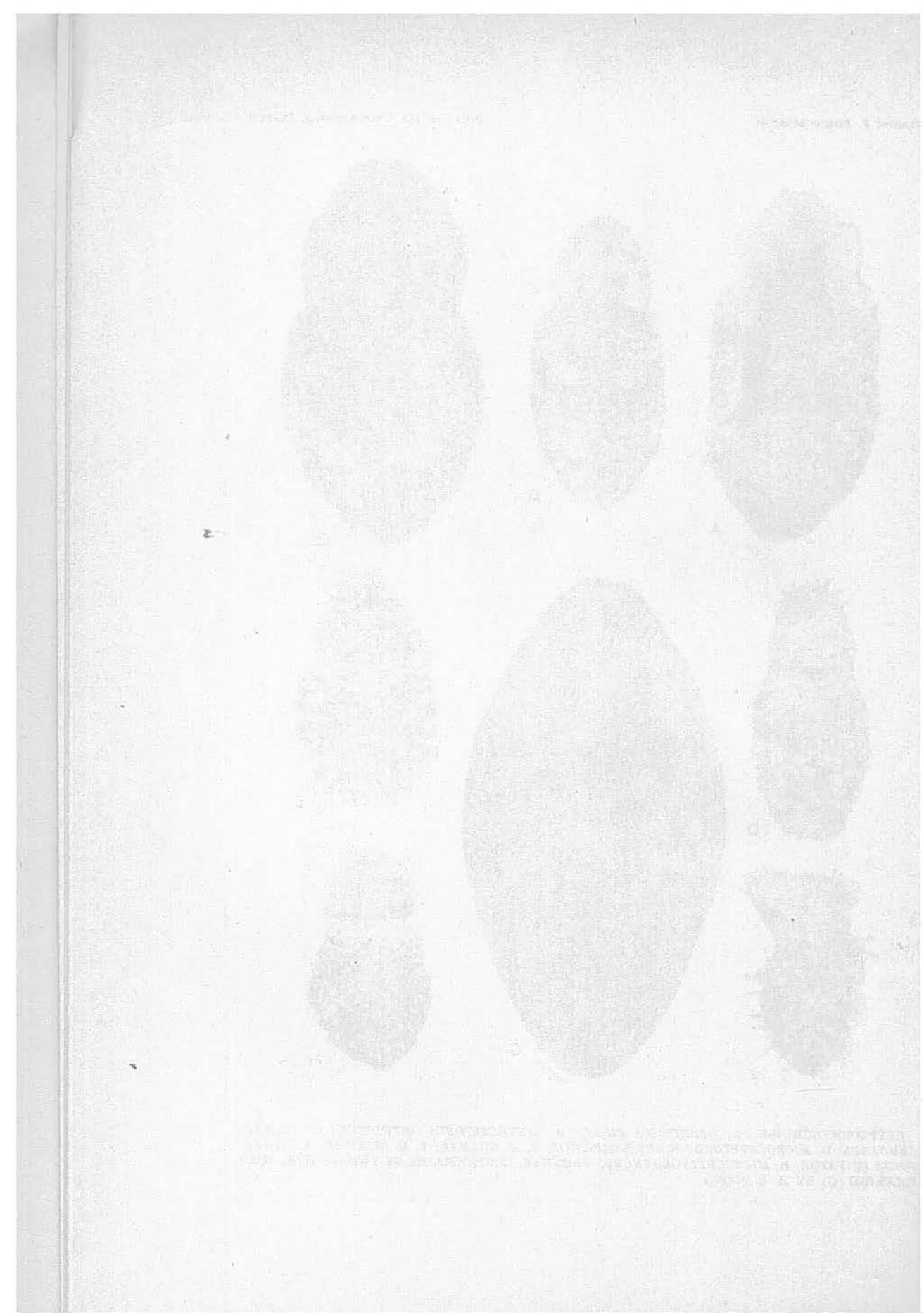


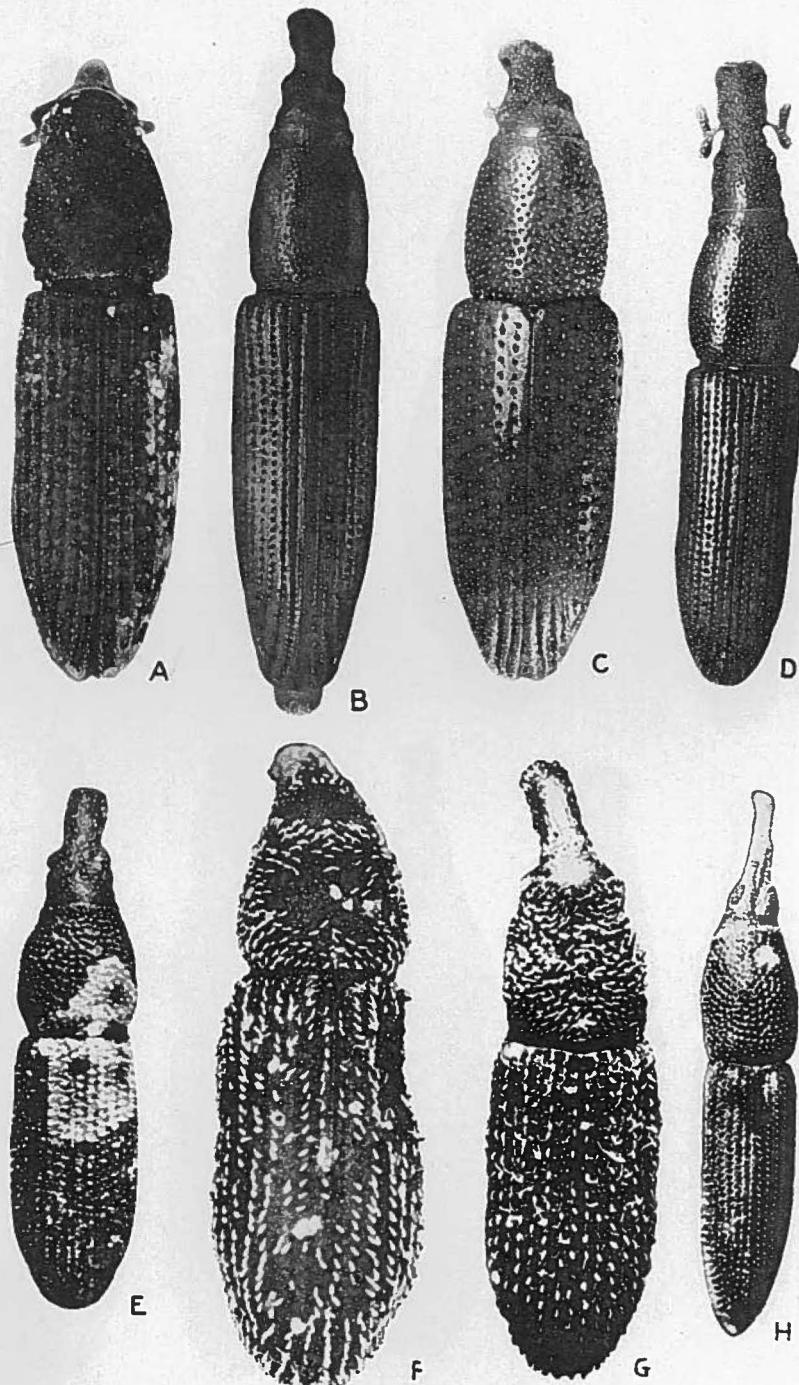
CRYPTORHYNCHINAE. A, *ANABALLUS AMPLICOLLIS*; B, *CAMPTORHINUS DORSALIS*; C, *EUSCEPES POSTFASCIATUS*; D, *DEALUS TUBEROSUS*; E, *D. TIBIALIS*; F, *OREDA MACULATA*. (PHOTOGRAPHS BY W. TWIGG-SMITH.)



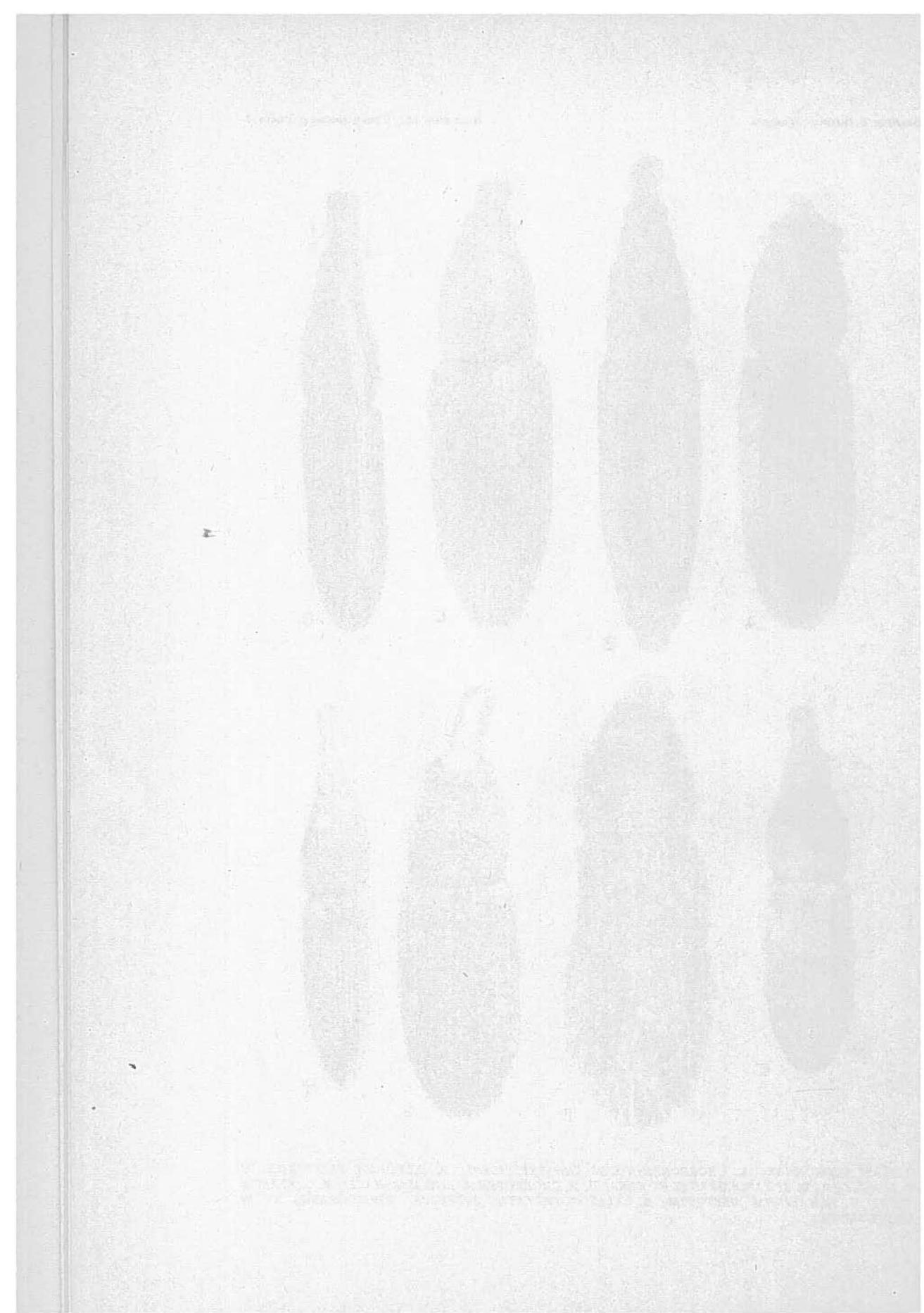


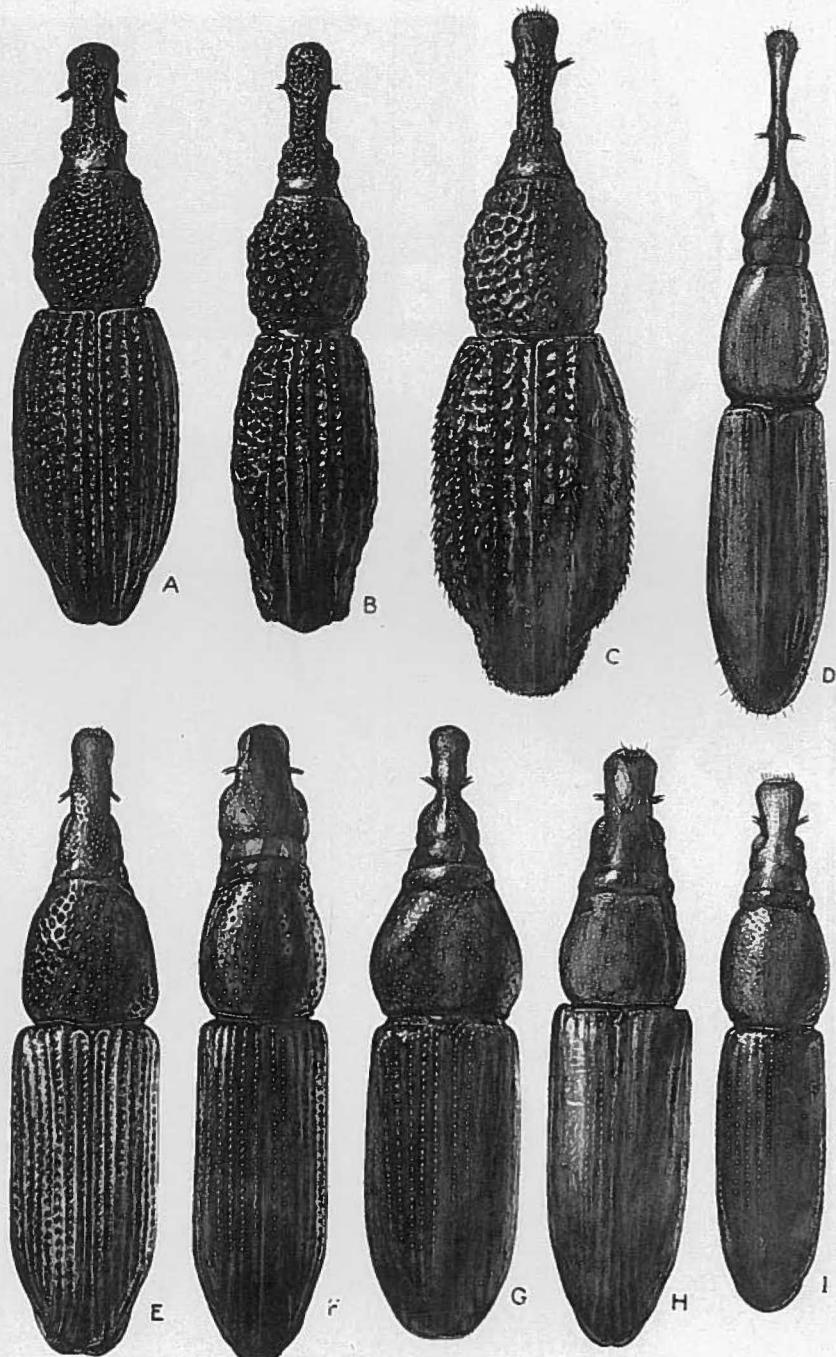
CRYPTORHYNCHINAE. A, *DERETIOSUS FICAE*; B, *MENECTETORUS SETULOSUS*; C, *ACALLES SAMOANUS*; D, *MICROCRYPTORHYNCHUS BASIPENNIS*; E, *M. GUAMAE*; F, *M. SPINIFER*; G, *NEOAMPAGIA IMITATOR*; H, *MICROCRYPTORHYNCHUS PREMNAE*. (PHOTOGRAPHS BY TWIGG-SMITH, WASH DRAWING (G) BY M. E. POOR.)



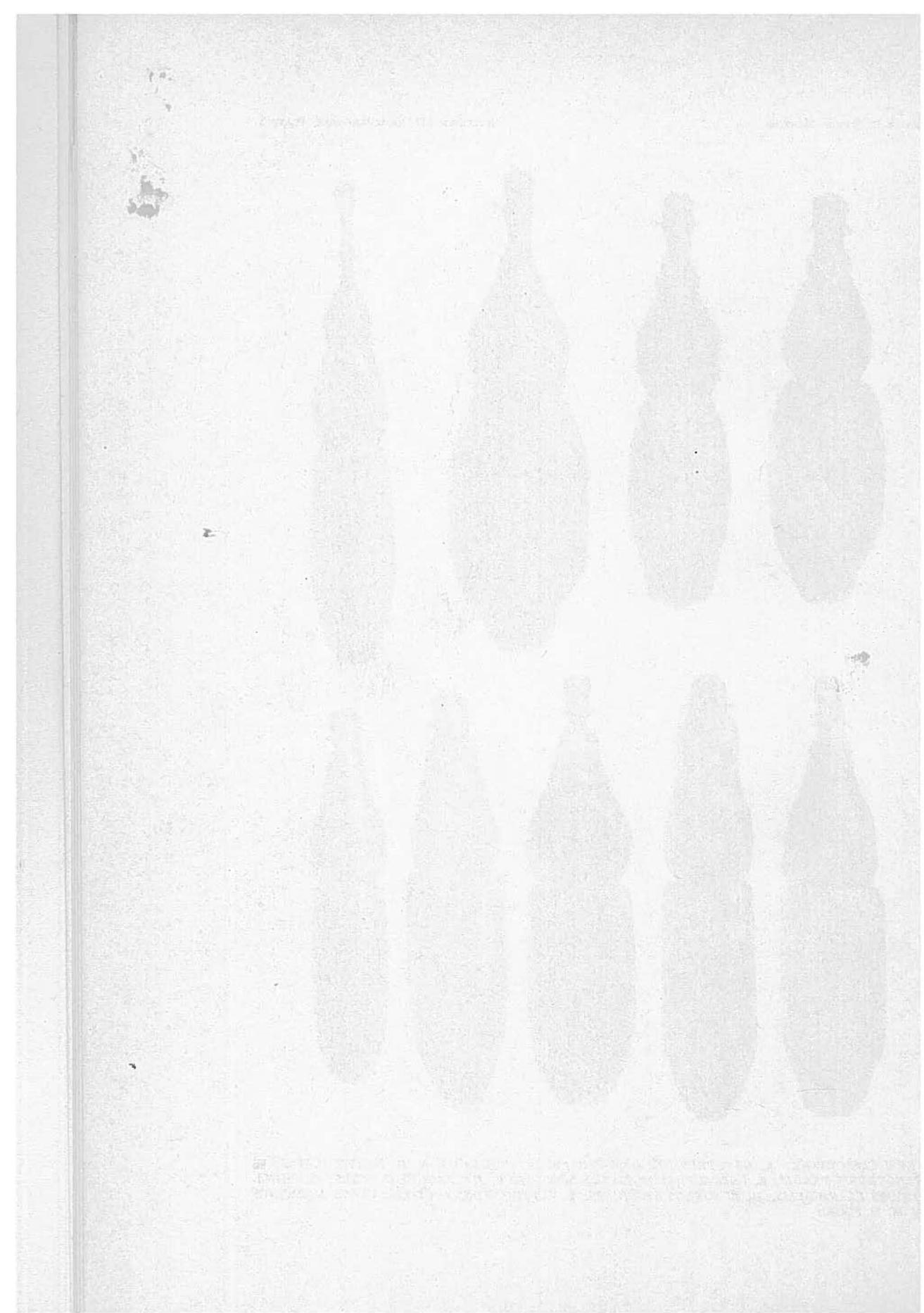


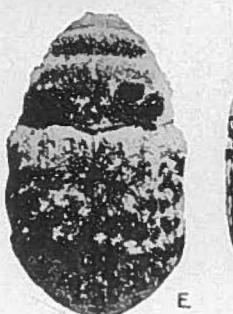
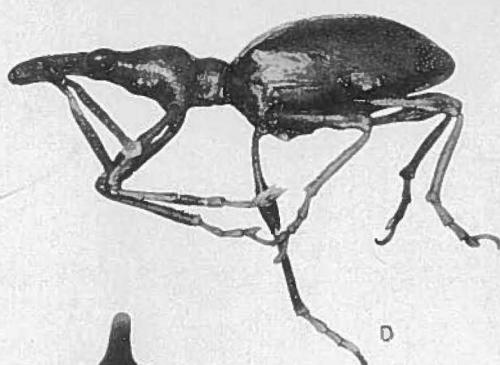
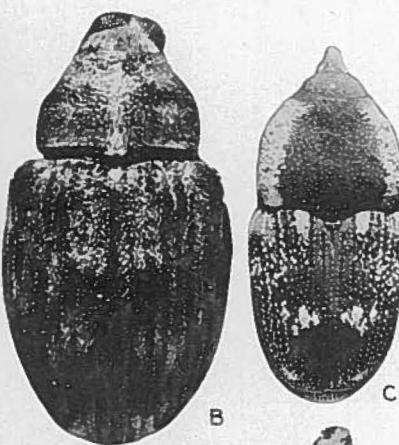
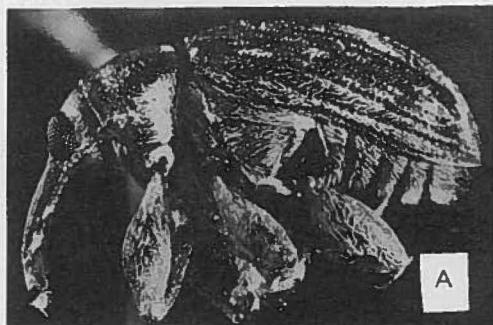
GUAM COSSONINAE. A, *CHOERORRHINODES CONSTRICTICEPS*; B, *OXYDEMA FUSIFORME*; C, *O. LONGULUM*; D, *APHANOCORYNES HUMERALIS*; E, *CHOERORRHINODES MARSHALLI*; F, *C. FLAVISETOSUS*; G, *HIMATITNUM BISETOSUM*; H, *CYLINDROTRYPETES SUFFUSUS*. (PHOTOGRAPHS BY W. TWIGG-SMITH.)



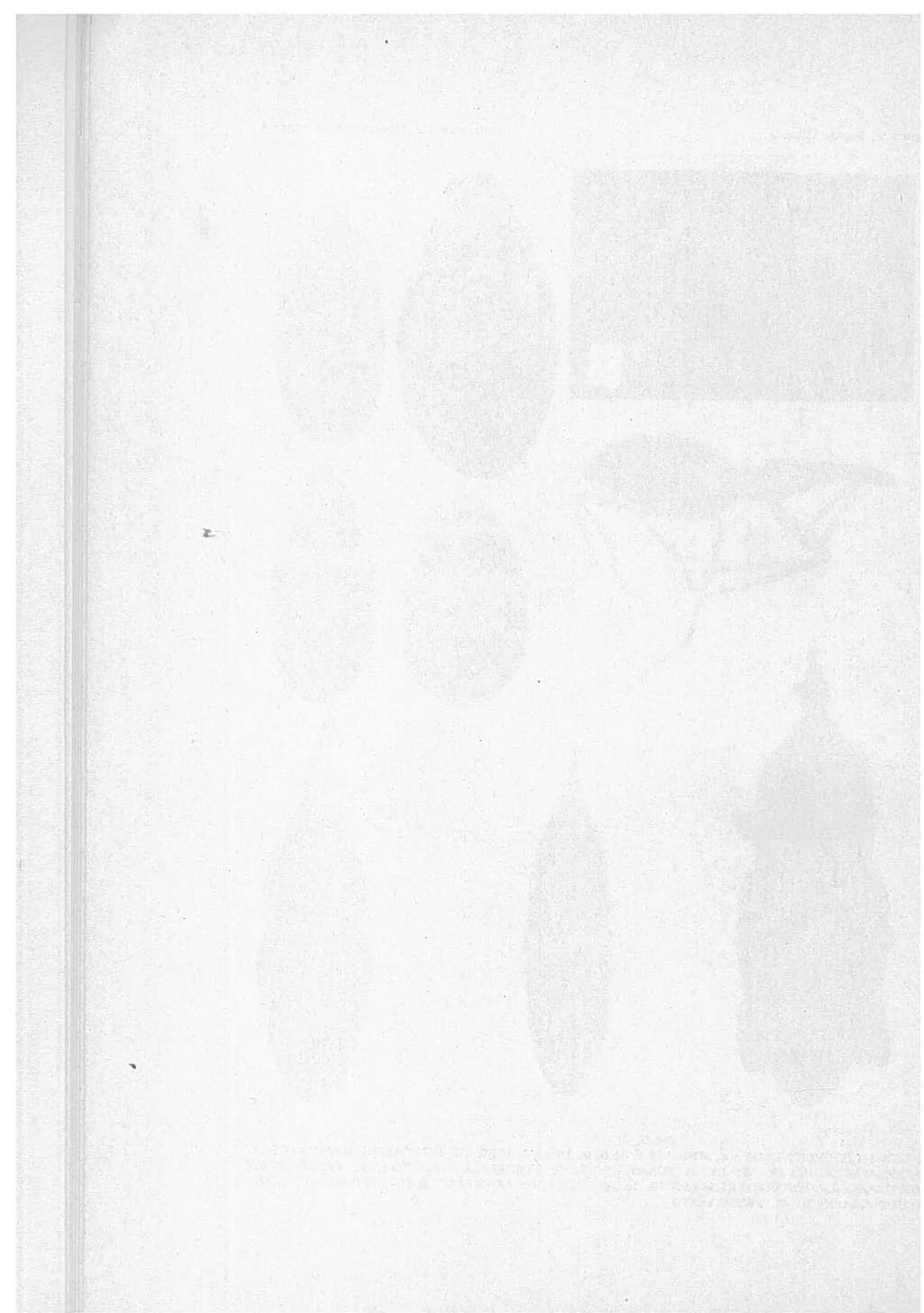


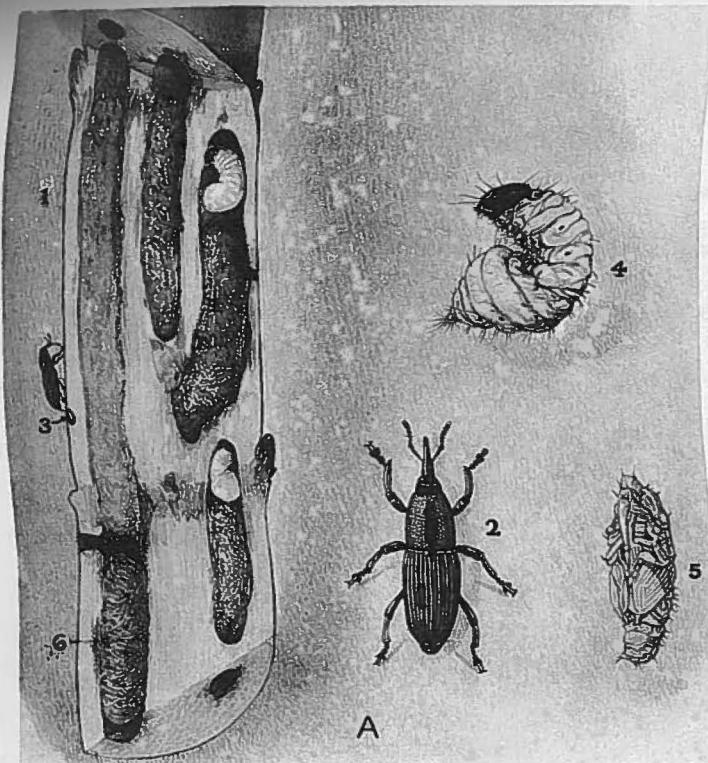
NEW COSSONINAE. A, *DRYOTRIBODES OBSCURUS*; B, *D. ANGULARIS*; C, *D. DENTICULATUS*; D, *STENOTRUPIS TENUIS*; E, *PHLOEOPHAGOSOMA SULCIROSTRE*; F, *MACRANCYLUS NIGER*; G, *RHINANISODES PLANICOLLIS*; H, *EUTORNUS NIGRICEPS*; I, *TYTTHOXYDEMA EXILIS*. (WASH DRAWINGS BY M. E. POOR.)



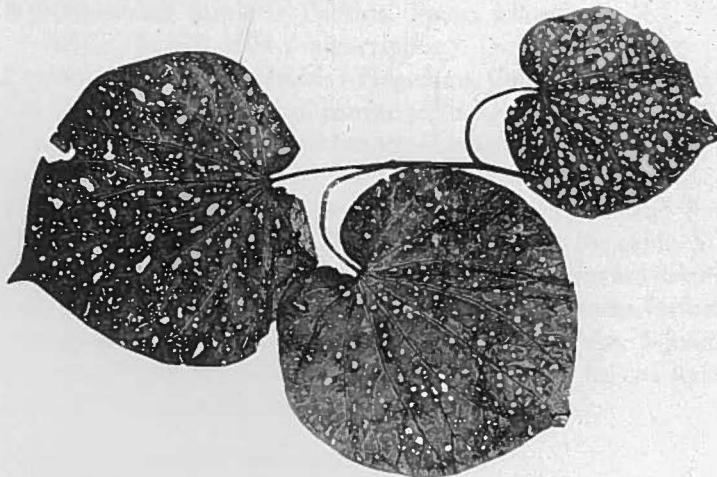


GUAM CURCULIONIDAE. A, SIDE VIEW AND B, DORSAL VIEW OF *USINGERIUS MACULATUS*; C, *ATHESAPEUTA ULVAE*; D, *CYLAS FORMICARIUS*; E, *SWEZEYELLA MUSCOSA*; F, *AMBLYCNEMIS DENTIPES*; G, *COSMOPOLITES SORDIDUS*; H, *DIOCALANDRA FRUMENTI*; I, *POLYTUS MELLERBORGI*. (PHOTOGRAPHS BY W. TWIGG-SMITH.)





A



B

A. ILLUSTRATIONS OF "LIFE HISTORY OF THE NEW GUINEA SUGARCANE WEEVIL," *RHABDOCNEMIS OBSCURUS*: 1, SUGAR CANE SHOWING DAMAGE; 2, ADULT; 3, EGG IN RIND OF CANE; 4, LARVA; 5, PUPA; 6, COCOON. (FROM A PAINTING BY W. R. R. POTTER, AFTER MUIR AND SWEZEY, HAWAIIAN SUGAR PLANTERS' ASSOCIATION, ENT. BULL. 13, 1916.) B, WORK OF *TRIGONOPS* ON LEAVES OF *PIPER GUAHAMENSE*.