

CRYPTORHYNCHINAE OF THE
SOCIETY ISLANDS
(Coleoptera, Curculionidae)

By

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INTRODUCTION

This paper is founded principally on the collections made by me while on the Mangarevan Expedition to southeastern Polynesia in 1934. It treats of 46 species which inhabit the archipelago. Forty-one of these are endemic and 26 are described as new to science. Heretofore, there have been no insects recorded from several of the islands. The drawings were made by me from camera lucida outlines. The types are stored in Bernice P. Bishop Museum.

The Society Islands form an archipelago of 15 islands lying, roughly, half way between northern Australia and Peru and between 950 and 1,075 nautical miles south of the equator. Nine of these islands are high or volcanic; the other six are flat coral atolls. Mount Orofena on Tahiti rears her unconquered head 7,339 feet above the sea—the highest land in eastern Polynesia south of the equator and higher than any point on the continent of Australia. Moorea and Raiatea have elevations between 3,000 and 4,000 feet and Borabora and Huahine are over 2,000 feet high. Tahiti is by far the largest island of the group and is some 33 miles long, about 110 miles in circumference, and occupies an area of about 350 square miles. Next in size, and of major importance, come Raiatea, Moorea, Tahaa, and Huahine.

The rainfall on the high islands is great. On the eastern sea coast of Tahiti the annual precipitation is about 250 inches, while in the high interior, Crampton (1916) has estimated that over a thousand inches of rain fall each year. This enormous total does not seem much exaggerated to one who has explored in the interior and has seen the peaks shrouded with rain clouds for weeks on end. On the leeward or dry sides, however, the islands often present a rather dry and barren aspect. Owing to the elevation and the rugged topography, there is great range in temperature. The floors of many

¹ Rhynchophora of southeastern Polynesia Publication 7.

² Mangarevan Expedition Publication 15.

of the huge, chasm-like valleys are rarely warmed by the sun's rays. The average annual temperature of the city of Papeete, on the warm side of Tahiti, is about 79° F. Temperatures as low as 55° have been recorded at low elevations, but no data have been assembled for the high interior. With elevation, the drop in temperature is great. Above 6,000 feet the plants are dwarfed, but miniatures of those at low or middle elevations.

From these data it is evident that the habitats and types of ecological niches are numerous and diverse.

In this discussion it is not necessary to include the six coral atolls, since they are not inhabited by endemic Cryptorhynchinae. All of the 41 endemic species are restricted to single islands with the exception of *Microcryptorhynchus vagus*, new species, which is abnormally found on four different islands. Tahiti, with its 28 strictly endemic species, has more than twice as many species as the rest of the archipelago as a whole. Huahine and Raiatea have four each, and Moorea and Tahaa have two each. The other high islands have not been carefully explored as yet. I have collected on seven of the nine high islands of the archipelago, but the data that I have assembled herein must not be taken as conclusive. Much more work was done on Tahiti than on any of the other islands. My time was frequently limited to a few hours of collecting, and often part of that was spoiled by rain. The endemic weevils, with few exceptions, are found only in the indigenous forests in the highlands, and the size of one's collections of endemic species is directly proportional to the number of diaphoretic excursions to the interior and to the time spent at high elevations.

These islands, often considered to have a poor coleopterous fauna, have, on the contrary, a rather rich one. It is true that only a few groups are represented in the endemic fauna, but the speciation that has taken place is often surprisingly great. They, like Hawaii, are areas of comparatively few genera but large numbers of species.

In an analysis of the fauna we may disregard the non-endemic species of the genera *Euscepes*, *Acalles*, *Anaballus*, *Elytroteinus*, and *Islanderia*, for all their representatives in the Society Islands have wide geographical ranges. The species of these genera have all been introduced since the advent of man and are associated with cultivated crops or introduced trees. Conclusions drawn from these species might, therefore, be misleading. We then have the six re-

maining genera, *Ampagia*, *Ampagioides*, *Aeschylus*, *Microcryptorhynchus*, *Orochlesis*, and *Phanerostethus*, which have endemic species in the islands. None of these genera, with the possible but highly improbable exception of *Aeschylus*, are restricted to the Society Islands. *Ampagia* and *Microcryptorhynchus* are found westward into Australia. *Orochlesis* has a distribution that continues through Australia, New Guinea, the Philippines into Malaya, Formosa, and Japan. *Phanerostethus* is found in Samoa and I have seen undescribed species from Fiji. *Ampagioides* is but a recent offshoot of *Ampagia* and is now known only from southeastern Polynesia. *Aeschylus* is monotypic and is found only on Tahiti. Its affinities are with the western Pacific fauna, and perhaps when some of the so-called Pacific "*Tylodes*" and various members of other genera are restudied they will be found to belong to this genus. I am confident that it is not restricted to Tahiti. *Ampagioides* and *Aeschylus* are represented by one species each, *Orochlesis* and *Phanerostethus* by two each, *Ampagia* by 11, *Microcryptorhynchus* by 24, and *Microcryptorhynchus* is now more abundantly represented in the Society Islands than in any other one area. This distinction, however, will hold only until I have completed my studies of the rest of southeastern Polynesia, when I shall show the greater development of this genus in Rapa and the Marquesas. These small weevils have not been carefully collected in the western Pacific, however.

If we compare this fauna with that of Samoa or Fiji, we find that it is larger than either. This fact should not be misconstrued, for it does not represent the true state of affairs. Both Samoa and Fiji undoubtedly have richer faunas than the Society Islands. The explanation of the discrepancy lies in the method of collection. Careful collecting in the future will reverse this relationship. In Samoa the Cryptorhynchinae are represented by 14 genera, five of which are not known from the Society Islands where there are 11 genera. There are 24 species included in the 14 Samoan genera. Only three of these genera contain three or more species, one genus has two, and the other 10 genera are monotypic in Samoa. This, to me, indicates incompleteness in collecting. The cryptorhynchine fauna of Fiji is too little known to discuss with advantage. I may say, however, that its fauna is much more diversified than either that of Samoa or of

the Society Islands. There have been about 40 species described from Fiji, but that number is comparatively insignificant.

With few exceptions, the endemic Cryptorhynchinae of the Society Islands are very small; the majority are less than 2 mm in length. Their small size and twig-boring habits have had a definite influence on their generic selection for such a wide insular distribution.

From the foregoing discussion there is only one possible conclusion to give for the origin and affinities of the cryptorhynchine fauna of the Society Islands: it has been derived from the western Pacific. There is no so-called "Antarctic" element present.

CHECK LIST

1. *Anaballus amplicollis* (Fairmaire).
Throughout the Pacific from New Caledonia to the Marquesas.
2. *Elytroteinus subtruncatus* (Fairmaire).
Eastern Oceania.
3. *Acalles samoanus* Marshall.
Southern Polynesia from Samoa eastward.
4. *Aeschylus clathratus* (Fairmaire), new genus.
Tahiti.
5. *Euscepes posfasciatus* (Fairmaire) Zimmerman, new combination.
Nearly cosmopolitan.
6. *Islanderia vittata* Zimmerman.
Central Pacific from the Santa Cruz Islands to Mangareva.
7. *Microcryptorhynchus vagus*, new species.
Borabora, Huahine, Moorea, and Tahiti.
8. *Microcryptorhynchus tahaae*, new species.
Tahaa.
9. *Microcryptorhynchus minutus*, new species.
Raiatea.
10. *Microcryptorhynchus pallidus*, new species.
Huahine.
11. *Microcryptorhynchus caudatus*, new species.
Huahine.
12. *Microcryptorhynchus rubellus*, new species.
Huahine.
13. *Microcryptorhynchus fosbergi*, new species.
Tahiti.
14. *Microcryptorhynchus similis*, new species.
Tahiti.
15. *Microcryptorhynchus angustatus*, new species.
Tahiti.
16. *Microcryptorhynchus confinis*, new species.
Tahiti.
17. *Microcryptorhynchus discretus*, new species.
Tahiti.
18. *Microcryptorhynchus pervisus*, new species.
Tahiti.
19. *Microcryptorhynchus modicus*, new species.
Tahiti.
20. *Microcryptorhynchus ambiguus*, new species.
Tahiti.
21. *Microcryptorhynchus irroratus*, new species.
Tahiti.
22. *Microcryptorhynchus convexus*, new species.
Tahiti.

23. *Microcryptorhynchus montevagus*, new species.
Tahiti.
24. *Microcryptorhynchus fulgidus*, new species.
Tahiti.
25. *Microcryptorhynchus fraudator*, new species.
Tahiti.
26. *Microcryptorhynchus planatus*, new species.
Tahiti.
27. *Microcryptorhynchus brevis*, new species.
Tahiti.
28. *Microcryptorhynchus exilis*, new species.
Tahiti.
29. *Microcryptorhynchus freycinetiae*, new species.
Tahiti.
30. *Microcryptorhynchus orofenae*, new species.
Tahiti.
31. *Phanerostethus ingens*, new species.
Raiatea.
32. *Phanerostethus pillidiceps*, new species.
Tahiti.
33. *Ampagia vannifera* Zimmerman.
Tahaa.
34. *Ampagia ovata* Zimmerman.
Raiatea.
35. *Ampagia pallida* Zimmerman.
Huahine.
36. *Ampagia bella* Zimmerman.
Moorea.
37. *Ampagia conspersa* Zimmerman.
Moorea.
38. *Ampagia pustulata* Zimmerman.
Tahiti.
39. *Ampagia signifera* Zimmerman.
Tahiti.
40. *Ampagia similis* Zimmerman.
Tahiti.
41. *Ampagia infumata* Zimmerman.
Tahiti.
42. *Ampagia debilis* Zimmerman.
Tahiti.
43. *Ampagia brevis* Zimmerman.
Tahiti.
44. *Ampagioides lineatus* Zimmerman.
Tahiti.
45. *Orochlesis gibbera* Zimmerman.
Raiatea.
46. *Orochlesis lunata* Zimmerman.
Tahiti.

KEY TO GENERA

1. Dorsum tuberculate..... **Acalles**, page 11
 Dorsum not tuberculate.....2
2. Scutellum visible8
 Scutellum invisible3
3. (2). Prothorax much broader than long, usually conspicuously expanded
 or lobate on the sides; elytra with the apex very broad and sub-
 truncate; body subquadrate **Anaballus**, page 10
 Prothorax not conspicuously expanded on the sides, the body never
 subquadrate, always much longer than broad.....4
4. (3). Over 5 mm in length, the mesosternal receptacle either open and
 terminating between the mesocoxae or cavernous and terminating
 between the fore and mid coxae.....5
 Less than 4 mm in length, most often less than the 3 mm long.....6
5. (4). Mesosternal receptacle deep and cavernous, terminating before the
 mesocoxae, the elytra broad and subtruncate at the apex, sharply
 inflexed on the sides..... **Elytroteinus**, page 10
 Mesosternal receptacle open, terminating between the
 mesocoxae..... **Aeschylus**, page 11
6. (4). Venter with the first and second ventrites separated by a distinct
 and usually coarse suture, the pronotum either bristling with
 erect spatulate setae and the elytra with a conspicuous, trans-
 verse, pale fascia on the declivity, or the pronotum densely
 clothed with pale scales and the elytra vittate and with a dark,
 denuded scutellar area.....7
 Venter with the suture between the first two ventrites most often
 obliterated in the middle, but if traceable there the other char-
 acters are not as above, less than 2.5 mm long.....
 **Microcryptorhynchus**, page 16
7. (4). Elytra densely clothed with white scales, vittate, the scutellar
 area denuded and conspicuously dark..... **Islanderia**, page 16
 Elytra with greyish-brown scales, with a pale transverse fascia on
 the declivity, the prothorax conspicuously bristling with erect
 squamiform setae..... **Euscepes**, page 14
8. (2). Mesosternal receptacle open, the pectoral channel squamose.....
 **Phanerostethus**, page 42
 Mesosternal receptacle deep and cavernous, the posterior overhang-
 ing part strongly developed.....9
9. (8). Body dorso-ventrally depressed, the ventrites all on the same
 level..... **Orochlesis**, page 46
 Body laterally compressed, the first two ventrites on a different
 plane than the others.....10
10. (9). Hind femora greatly expanded, first ventrite overhanging the sec-
 ond..... **Ampagia**, page 46
 Hind femora not expanded, first ventrite not overhanging the sec-
 ond..... **Ampagioides**, page 46

Genus ANABALLUS Blanchard, 1851

1. *Anaballus amplicollis* (Fairmaire).

Acalles amplicollis Fairmaire: Rev. Mag. Zool., ser. 2, vol. 1, pp. 36, 514, 1849.

This species is easily recognized by its expanded prothorax and subquadrate elytra. See part four of this work (Rhynchophora of southeastern Polynesia publication 4, B. P. Bishop Mus., Occ. Papers, vol. 12, no. 17, 1936) for an illustration. It was originally described from Tahiti and is known from New Caledonia to the Marquesas Islands. I have seen specimens collected recently by Mr. O. H. Swezey and others, on Guam. It frequents the fallen fruits of *Inocarpus edulis* in southeastern Polynesia and has been distributed by man. I have not seen specimens from the Society Islands, although it must be a rather common species on most of the islands.

Genus ELYTROTAINUS Marshall, 1920

2. *Elytroteinus subtruncatus* (Fairmaire).

Pteroporus subtruncatus Fairmaire: Ent. Soc. France, Ann., ser. 6, vol. 1, p. 307, 1881.

The comparatively large size of this species (5-8 mm), the rusty color of its vestiture, and the conspicuous white W of scales in the middle of its subapically constricted elytra will serve to distinguish this introduced species. Like the preceding species it has been distributed by man to many islands. It was originally described from Fiji and is known as the "ginger weevil" in Hawaii where it has also been taken in taro and is of some economic importance. H. W. Simmonds (1928) says that it does much damage to begonias in Fiji by boring down the centers of the main stems and that it has been reported as boring into the pulp of lemons in the Cook Islands.

It was taken in the following Society Islands locations by the Mangarevan Expedition. Tahaa: three specimens taken by Yoshio Kondo from the valley southeast of Mount Purauti, elevation 400 feet, October 10, 1934. Raiatea: two specimens taken by me on the south slope of Toahiva Valley, elevation 300 feet, and one from Tetoroa Bay, October 9; four specimens from Paaioia Valley, elevation 300 feet, October 9, one from Tetaro Islet, elevation 3 feet, October 4, and one specimen from the northwest ridge of Faarua Bay, eleva-

tion 300-500 feet, October 6, taken by Yoshio Kondo; one specimen from the north ridge of Paaia Valley taken by Donald Anderson and Yoshio Kondo, October 8. Moorea: three specimens taken by me from the fallen fruits of *Inocarpus edulis*, Urufara Valley, elevation 300 feet, September 22-27; three specimens taken by me on the undersides of the fallen leaves of *Barringtonia* in Tepatu Valley, elevation 300-500 feet, September 27; one specimen taken by C. M. Cooke, Jr., in Maramu Valley, elevation 400 feet, September 26; and one specimen from the Pacific Entomological Survey taken by A. M. Adamson from dead banana leaves, three miles from the sea, in Faaroa Valley, December 4, 1928. All the specimens not taken by me, with the exception of the last one mentioned, were collected by the malacologists while turning over fallen leaves, usually in groves of *Inocarpus edulis* or *Barringtonia*.

Genus **ACALLES** Schoenherr, 1826

3. **Acalles samoanus** Marshall.

Acalles samoanus Marshall: Insects of Samoa, pt. 4, fasc. 5, pp. 280-281, 1931.

This species can be recognized by its tuberculate dorsum and the two conspicuous basal patches of white scales on the pronotum. For an illustration and complete description see my paper, "Cryptorrhynchinae of the Austral Islands" (B. P. Bishop Mus., Occ. Papers, vol. 12, no. 17, 1936).

It is a widespread species found on many of the high islands of southeastern Polynesia. It was taken in the Society Islands by the Mangarevan Expedition in the following localities. Meetia: four specimens taken by C. M. Cooke, Jr. and D. Anderson, May 12, 1934, while collecting land shells under dead leaves on the south slope above the west cliff. Moorea: one specimen from the Pacific Entomological Survey, collected by A. M. Adamson three miles from the sea, in Faaroa Valley, elevation 1,000 feet, December 4, 1928; and one specimen taken by me at 500 feet in Tepatu Valley, September 27, 1934.

Genus **AESCHYLUS** new genus

Head convex, not entirely concealed by the pronotum, the interocular area about as broad as the base of the rostrum. *Rostrum* moderately compressed dorso-ventrally, the antennae inserted beyond the

middle. *Antennae* with the scape shorter than the funicle, gradually clavate, reaching the eyes; the funicle seven segmented, the first two segments elongate; club four segmented, the terminal segment closely fused with the third, the basal segment almost as long as the rest. *Prothorax* convex, the post ocular lobes distinctly, but not strongly developed. *Scutellum* not visible. *Elytra* subtruncate at the base and there hardly wider than the base of the prothorax, without humeral cali; nine striate. *Wings* evidently not functional. *Legs* rather long, slender; the femora not conspicuously clavate, edentate, the hind pair not reaching the apex of the elytra; tibiae straight, somewhat compressed, with a curved uncus and a small tooth on the inner apical angle; tarsi with the second segment longer than broad and about as broad as the first, claws divaricate. *Sternum* with the mesosternal receptacle open, terminating between the mesocoxae, pectoral channel not squamose; metasternum between the mid and hind coxae less than half the length of a metacoxa, the metepisternal suture invisible. *Venter* with all the ventrites on the same plane, the intercoxal process broad, subtruncate in front, almost a third wider than a hind coxa; the first ventrite as long as two plus three, separated from two by a coarse suture; ventrite two longer than three plus four which are subequal, five somewhat longer than three plus four.

Genotype: *Tylodes clathratus* Fairmaire.

This genus is erected for the reception of Fairmaire's species which is most certainly not a *Tylodes*. The mesosternal receptacle in this species is open, whereas in *Tylodes* it is strongly protuberant, deeply cavernous and ventrite one is on a much lower plane than the others and is vertical behind. *Tylodes* is an American genus and probably does not occur in Oceania, contrary to the fact that several Pacific species have been described as belonging to it. In Lacordaire's key to his group Tylodides (*Genera des Coleopteres*, vol. 7, p. 90, 1866), this species falls closer to *Tragopus* than *Tylodes*, but it bears little resemblance to *Tragopus* which has the mesosternal receptacle cavernous and the femora dentate. *Aeschylus* is not closely allied to any of the Australian genera known to me, and I cannot place it in any of Lea's keys to the genera of Australian Cryptorhynchinae. Its allies may be found in Papua. There is a remote possibility, however, that it may have been introduced from

South America at an early date, but I know of no genus in which it could be placed. It does have a superficial resemblance to *Tylodes*, however. Although different from any of the other Society Island genera, it most closely resembles *Phanerostethus*, owing to the open structure of its mesosternal receptacle, and its distinctly separated ventrites. Its clothing is peculiar, for it is composed of scattered, elongate-oval squamules.

4. ***Aeschylus clathratus*** (Fairmaire) Zimmerman, new combination (fig. 3, a).

Tylodes clathratus Fairmaire: Rev. Mag. Zool., p. 514, 1849.

Female. Derm piceous to black, the antennae and tarsi reddish-brown, rather thinly clothed with small, yellow, elongate-oval squamae.

Head reticulate and finely punctate, more coarsely so between the eyes, with a conspicuous median fovea, scaling normally rather dense, evidently without erect setae. *Rostrum* rather evenly arcuate, coarsely punctate above from the base to the antennae, the punctures round and close, more shiny and finely punctate from slightly behind the antennae to the apex, with a distinct lateral sulcus from the base to the antennae along the upper margin of the scrobe, the sulcus bearing a few short, inconspicuous, erect, squamiform setae near the base, without median carinae or sulci, with a few scales at the base only, elsewhere shining and not clothed. *Antennae* inserted at one third from the apex, the scape as long as the seven funicular segments plus the first segment of the club; the first funicular segment not quite as long as two plus three, slightly heavier than two, two as long as three plus one half of four, three to seven slightly longer than broad and subequal; club elongate-oval, densely pubescent, as long as the four preceding segments. *Prothorax* slightly broader than long (3.2:2.7), broadly rounded on the sides, broadest at the middle, the subapical constriction distinct but narrow on the sides, shallowly and broadly continued across the dorsum, the longitudinal dorsal outline otherwise evenly and slightly convex; the base truncate; the punctures large, round but rather shallow, separated by less than their own diameters on the disk but closer and coarser on the sides, almost impunctate beyond the subapical constriction; the derm dull, thinly clothed with squamules, the punctures bearing prostrate setae that are similar to the scales. *Elytra* three fourths as broad as long, more than twice as long as the prothorax (6:2.7), base practically truncate, gradually expanded on the sides from the humeri to the rounded middle and then rather sharply narrowed to the narrowly rounded apex, without posterior calli, longitudinal dorsal outline strongly convex; nine striate, but with a few remote, vague punctures near the base on the lateral margin that may mark the obliterated tenth stria, the striae deep and broad, stria punctures large, rounded or subquadrate, often almost as broad as the intervals; intervals convex, three, five, and seven somewhat broader and distinctly more convex than the others, with widely separated, small, polished tubercles that bear prostrate squamiform setae, those on the more convex intervals most prominent, often indistinct on the other intervals, especially one, two, and four, the first intervals flattened in the basal half, but becoming distinctly, jointly convex on the declivity; derm dull, squamae evenly distributed, close but not dense. *Legs*

with the femora clothed with elongate squamae and fine slanting setae; the tibiae finely carinate, with scattered scales and with fine golden-yellow setae that become denser and longer apically. *Sternum* rather densely squamose, with the mesosternal receptacle terminating at the middle of the mesocoxae, squamose along the posterior margin, the pectoral channel with a few setae before the anterior coxae but not squamose; the metasternum between the mid and hind coxae one third the length of a metacoxa; coxae partially squamose. *Venter* with the intercoxal piece subtruncate in front, almost twice as broad as a hind coxa, ventrites evenly, closely, and often subconfluently and rather coarsely punctate throughout, ventrite one densely squamose along the base and lateral margin only, the other ventrites without scaling, all with a few, fine, scattered, erect setae; ventrite one laterally impressed behind the anterior margin, otherwise convex, as long as two plus three; two convex throughout, distinctly longer than three plus four; ventrite five rather densely clothed with erect yellow setae in the apical half; the sutures separating the ventrites coarse. Length, 7-8 mm; breadth, 3.5 mm.

Tahiti, Society Islands. Neotype female collected by L. H. MacDaniels, May 1927.

I have designated the specimen before me as a neotype to take the place of Fairmaire's unique type which cannot now be traced. Dr. P. Lesne kindly searched through Fairmaire's material in the National Museum at Paris for the type of this species and reports that in spite of careful searching, it cannot be found.

There are some discrepancies between Fairmaire's description and the specimen before me. In the original description Fairmaire stated that the rostrum was mesially carinate, whereas this is not true of the neotype. He may have had a male, in which sex it is possible that the rostrum is carinate, but it is not in the female. He said that the prothorax was a quarter broader than long; although it is broader than long, it is not so broad as he indicates. His statement may have been somewhat exaggerated. The scaling is not so dense as Fairmaire indicated, but the specimen at hand is abraded. In spite of these differences, I believe that there is no reason for not believing that the species herein described is Fairmaire's. The rest of his description, with a few minor exceptions, agrees with the neotype. This is evidently the first record in 85 years of the capture of this rare insect. Fairmaire says that his type was collected by M. Vesco from beneath a stone in a valley, at an elevation of 800 meters.

Genus *EUSCEPES* Schoenherr, 1844

5. *Euscepes postfasciatus* (Fairmaire) Zimmerman, new combination.

Cryptorhynchus postfasciatus Fairmaire: Rev. Mag. Zool., p. 513, June 1849.

Cryptorhynchus batatae Waterhouse: Ent. Soc. London, Proc., p. lxxix, 1849 (1850), new synonym.

Hyperomorpha squamosa Blackburn: Roy. Soc. London, Trans., ser. 2, vol. 3, pp. 182-183, 1885.

Euscepes batatae (Waterhouse) Champion: Biol. Centr. Amer. Coleoptera, vol. 4, pt. 4, p. 497, 1905.

I have five specimens of this almost cosmopolitan sweet potato pest before me, collected by the late G. P. Wilder—three from Oponohu, Moorea, taken on banana leaves; and two specimens from Tahiti. It probably occurs on most of the Society Islands wherever sweet potatoes are grown.

It may be 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, evenly placed punctures; the interstices between the punctures are coarsely reticulate.

This is Waterhouse's *Euscepes* (*Cryptorhynchus*) *batatae*, which I hereby reduce to synonymy. Waterhouse described the species originally as *Cryptorhynchus batatae* from Barbados. He presented the description of this species, together with that of his *Tricorynus zeeae*, in a paper without a definite title, to the meeting of the Entomological Society of London on June 4, 1849. His description, however, did not appear until the Proceedings for the year 1849 were published in 1850. Fairmaire described his *Cryptorhynchus postfasciatus* from Tahiti in his paper entitled "Essai sur les Coléoptères de la Polynésie" which was published in Revue et Magazin de Zoologie, printed in June 1849. Therefore, Fairmaire's name, *postfasciatus*, has several months' priority over Waterhouse's *batatae* and must be used in its place. Waterhouse's description appears on page lxxix, and Fairmaire's on page 513. There were a number of published reprints of Fairmaire's paper, in which the pages were renumbered. In this reprint Fairmaire's description appears on page 65. Blackburn redescribed this insect as a new genus and species from Hawaii in 1885.

I regret that I must initiate this change in the name of such a well-known, common insect of widespread economic importance.

However, I am bound by the international rules of nomenclature, and my paper would not be accurate if I neglected to do so.

Unfortunately, I was unable to have specimens of this species compared with Fairmaire's unique type. Dr. Lesne writes me that the type cannot be found among Fairmaire's material stored in Paris. It is possible that it is now lost. Specimens of this species before me agree with Fairmaire's description, and the following characteristics are diagnostic and are not found on any other Society Island or Polynesian species. Translated broadly from the French, he says that, first, the thorax is "covered with bristling squamiform pile", an outstanding specific character; second, that the "elytra have the shoulders nearly right angled", the prominent humeri are not common to any other Tahitian species; third, he states that on the posterior two thirds of the elytra there is a "transverse, common, grey fascia, blending itself behind with the color of the background, and bordered in front by a narrow brownish band", this character is specific; and, finally, that the insect was "taken on a limb of '*Hybiscus tiliacea*'". *Hibiscus tiliaceus* is an introduced tree of economic importance and is usually found in the lowlands about areas of habitation. This indicates that his specimen was taken in the lowlands, probably in the vicinity of the cultivation of sweet potatoes where the species was breeding.

Genus ISLANDERIA Zimmerman, 1936

6. *Islanderia vittata* Zimmerman.

Islanderia vittata Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. 12, no. 17, pp. 8-9, fig. 2, b, 1936.

This widespread Pacific species is easily recognized by its pale scaling, and conspicuously vittate elytra which have a dark, glabrous scutellar area. Although I found it in the Society Islands only on Raiatea, I believe that it inhabits most of the other high islands.

Genus MICROCRYPTORHYNCHUS Lea, 1908

To this rapidly growing genus I add 24 new species, bringing the total of known species up to 56. In the Society Islands the genus reaches its greatest development on Tahiti where 18 of the species are found. I cannot record an endemic species for the islands of Moorea and Borabora. There is little native forest left

there and the few hours I spent in truly endemic forests were insufficient to do careful collecting and secure endemic species of the genus. I did capture a species common to both of these islands and to Tahiti and Huahine, however. Undoubtedly, there are a number of species to be found on these islands, and intensive collecting would reveal them. This is true of the other high islands.

The antennae are remarkably similar in all of the species, and for that reason I have not included a description of each one. In many of the males the abdomen is bent downward at the apex and the pygidium is exposed. The elytra are fused together, at least at the base. The apterous condition is an ancient characteristic of the genus. I have been unable to find even vestiges of wings by dissection.

The Society Islands species of this genus represent the descendants of several different ancestral stocks. If one unfamiliar with the range of structural variation studied two extremes such as *Microcryptorhynchus vagus* and *M. caudatus*, he might place them in two different genera. With a large number of species at hand, however, the intergradations of the more outstanding characters are evident.

The measurements were taken with the aid of an eyepiece micrometer, and it is assumed that the student will use the same type of apparatus to identify his specimens.

BORABORA

7. *Microcryptorhynchus vagus*, new species (fig.4, p).

Derm black, the appendages reddish-brown, antennae paler, clothed with a variably colored amorphous incrustation of varying density.

Head punctured and coarsely reticulate, normally with four rows of erect, spatulate setae between the eyes. *Rostrum* with four dorsal striae separating three conspicuous carinae; the striae each supporting a row of erect clavate setae. *Prothorax* broader than long (4:3.5), rounded on the sides, broadest at about the middle, the subapical constriction strong and conspicuously continued across the dorsum in the middle of which there is a greatly variable, median impression, which may when well developed—often foveiform—have a variable median carina; closely, coarsely, and reticulately set throughout with large quadrate or subhexagonal punctures; these often contain farinaceous scales; derm coarsely reticulate throughout; with a band of white scales at the basal margin; setae stout, erect, clavate, scattered on the disk and more condensed near the apex, absent from the transverse furrow. *Elytra* subrotund, but slightly longer than broad (7:6), broadest behind the middle; striae broader than the intervals, closely set with large rounded or subquadrate punctures; alternate intervals bearing a row of erect, somewhat spindle-shaped sharp setae. *Legs*

with pale, concave scales and bristling with erect setae. *Sternum* with the mesosternal receptacle deep and cavernous, the side walls reaching the fore coxae, terminating at or very slightly before the middle of the mesocoxae; pleurae very densely clothed with white scales. *Venter* coarsely reticulate and with rather close, rounded punctures bearing elongate-oval, squamiform setae; the first two ventrites strongly convex in the female, flattened in the male. Length 1.7-2 mm; breadth, 0.8-1 mm.

Borabora, Huahine, Moorea, and Tahiti, Society Islands. Holotype male, allotype female, and six paratypes collected by me on Huahine while beating shrubs on the northwest ridge of Mount Turi, at elevations between 1700 and 2100 feet, October 1, 1934; one paratype beaten from ferns at an elevation of 1800 feet on the mountain west of Mount Turi, September 30. Two paratypes and one broken specimen collected by me on Borabora while beating a species of Celastraceae on the east slope of the mountain north of Mount Pahio, elevation 1900 feet, October 13, 1934; one paratype collected by me while beating *Alyxia* on the north ridge of Mount Teaharoa, elevation 2,000 feet, September 25, 1934, on Moorea, and another paratype from the Pacific Entomological Survey, collected by A. M. Adamson three miles from the sea in Opunohu Valley, December 3, 1928; three paratypes from the Pacific Entomological Survey, collected by Mumford and Adamson, two miles from the sea, in Vallée de la Reine, on Tahiti, December 17, 1928; and four paratypes collected by me while beating ferns on Mount Aorai Trail, elevation 4,000 feet, September 16, 1934.

This species is very closely related to *M. glomus* Marshall, from Samoa. From that species it may be distinguished by its duller derm. The thorax of *M. glomus* is very shining where exposed, but on this species the derm is coarsely reticulate and dull, not smooth and shiny.

It is most unusual for any species of *Microcryptorhynchus* to be found on more than one island in southeastern Polynesia, and this species, so far as I now know, is unique in that respect. I can in no way distinguish the species of one island from those of another island. In fact, the entire series is difficult to separate from *M. glomus* from Samoa.

The size and subrotund form of this species, together with its very coarsely, reticulately punctured pronotum, will readily distinguish it from all the other Society Island species. In these characters it approaches many of the undescribed Marquesan species in

our collection as well as *M. mangarevae* Zimmerman. It has no close relatives in the Austral Islands.

TAHAHA

8. *Microcryptorhynchus tahaae*, new species.

Derm reddish-brown, densely covered above with a thick, pale, amorphous incrustation that normally completely conceals the derm and somewhat distorts the actual contours of the body, thinner beneath.

Head densely encrusted, a row of erect setae along the inner margins of the eyes. *Rostrum* with four rows of punctures to the antennae and thence confusedly punctate to the apex. *Prothorax* slightly longer than broad, rather coarsely punctate, interstices between the punctures narrower than the punctures, the subapical constriction distinctly continued across the dorsum; with a dense cluster of small, white scales below the basal margin. *Elytra* almost three fourths as broad as long and less than twice as long as the prothorax; broadly rounded on the sides; striae broader than the intervals, the punctures large, close, and quadrate; intervals only about as broad as the interstices between the striae punctures, the old numbered ones each with a row of pale, erect setae. *Legs* with sparse erect setae, densely encrusted, femora stout. *Sternum* with the mesosternal receptacle terminating at the posterior margin of the mesocoxae in the female, slightly before the margin in the male, deep, with high complete side walls that extend forward to the fore coxae, cavernous. *Venter* with the intercoxal process five sevenths as broad as the length of the first two ventrites which have the suture between them obliterated. Length, 1.4 mm; breadth, 0.6 mm.

Tahaa, Society Islands. Holotype female, and two male paratypes collected by me while beating shrubs on the east ridge of Mount Purauti, elevation 1200 feet, October 11, 1934.

This species suggests *M. analis* Marshall from Samoa. It can be distinguished from that species by its comparatively shorter elytra, by having the rostrum not coarsely sculptured and the venter coarsely reticulate instead of shiny.

RAIATEA

9. *Microcryptorhynchus minutus*, new species (fig. 4, *k*).

Derm reddish-brown, the scaling and setae whitish; the amorphous incrustation, when present, thin and uneven.

Head with scattered, rather large, concave white scales; with an interocular puncture and a row of spatulate setae around the eyes. *Rostrum* with a lateral stria from the base to the antennae that bears erect, spatulate setae, with minute punctuation elsewhere. *Prothorax* distinctly longer than broad (2:1.75); the subapical constriction continued rather narrowly across the dorsum; punctures rather large, rounded, shallow, rather irregularly placed, and bearing farinaceous scales; disk with scattered, erect setae, apical margin with a row of widely spaced, narrow setae; the basal margin, with a band

of closely packed, yellowish scales that is emarginate in the middle. *Elytra* about four sevenths as broad as long, one and three fourths as long as the prothorax, rather evenly arcuate on the sides; intervals slightly narrower than the striae, alternate intervals each with a row of rather long, erect, lanceolate setae; striae punctures medium sized, rounded, separated by distances equal to less than their diameters, interstices bearing farinaceous scales. *Legs* with large sharp setae. *Sternum* with the mesosternal receptacle terminating at about the middle of the mesocoxae, deep and cavernous, side walls high and extending forward to the anterior margin of the mesosternum; metasternum coarsely punctured. *Venter* with the intercoxal process as broad as about one half the length of the first two ventrites which are coarsely punctured Length 1-1.1 mm; breadth, 0.4 mm.

Raiatea, Society Islands. Holotype and six paratypes collected by me from dead *Pandanus* leaves on Temehani Plateau between 1400 and 1600 feet in elevation. October 5, 1934.

This species is distinct because of its very small size, for it is the smallest of the Society Island species. It resembles the Tahitian *M. freycinetiae*, but it is smaller than that species and has the prothorax less coarsely sculptured.

HUAHINE

Key to species

1. All the elytral intervals with setae.....2
Only the alternate elytral intervals with setae.....3
2. Yellowish; elytra not prolonged at the apex; mesosternal receptacle deep and cavernous, the side walls continued forward nearly to the fore coxae.....**M. pallidus**
Reddish-brown to black with yellow setae; elytra prolonged apically; mesosternal receptacle shallow, open, the side walls not extending beyond the anterior margins of the mesocoxae.....**M. caudatus**
3. Subrotund, prothorax very coarsely and reticulately set with large sub-hexagonal punctures, broader than long; setae long and bristling; striae broader than the intervals.....**M. vagus**, page
Elongate, the prothorax with small, rounded, separated punctures, longer than broad; the intervals broader than the striae.....**M. rubellus**

10. *Microcryptorhynchus pallidus*, new species (fig. 4, n).

Derm pale to dark yellowish, the amorphous incrustation unevenly placed and not dense, the greater part of the derm visible, elytra without scales.

Head almost impunctate except in the interocular area, with no conspicuous erect setae. *Rostrum* with four striae from the base to the antennae, setae very fine and inconspicuous, shiny and with the punctures scattered from the antennae to the apex; striae coarser in the male than in the female. *Prothorax* slightly longer than broad, the subapical constriction not very strong and continued shallowly across the dorsum; punctures round, separated by distances about equal to their diameters; setae very fine; base with a band

of scales. *Elytra* subcordate, almost three fourths as broad as long, twice as long as the prothorax; intervals broader than the striae, each with a row of short, erect, lanceolate setae, those in the even numbered rows smaller and partially abraded; striae impressed, thus giving the intervals a slightly convex appearance, the punctures round and separated by a distance equal to their own diameters which is slightly more than one half the breadth of an interval on the disk. *Legs* with short setae, evidently without scaling. *Sternum* with the mesosternal receptacle terminating at the posterior margin of the mesocoxae in the female, very slightly before the margin in the male, deep and cavernous, U-shaped, side walls high, extending forward nearly to the fore coxae; metasternum with a few scattered punctures. *Venter* with the intercoxal process almost four fifths as broad as the length of the first ventrite; the first two ventrites rather closely punctate and with fine, scattered setae, 3-5 reticulate, impunctate, devoid of setae. Length, 1.5-1.6 mm; breadth, 0.7-0.8 mm.

Huahine, Society Islands. Holotype female, and three paratypes, two males and one female, collected by me while beating shrubs on the northwest ridge of Mount Turi, at elevations between 1700 and 2100 feet, October 1, 1934.

This species is superficially somewhat suggestive of *M. testaceous* Zimmerman from Tubuai but is most distinct from that species in the structure of its mesosternal receptacle and its smaller size.

11. *Microcryptorhynchus caudatus*, new species (fig. 4, c).

Derm reddish-brown to black, without a dense incrustation, rather closely covered with white or greyish scales and yellow setae.

Head reticulate, shallowly punctate, the punctures concealed by yellowish scales; with a few fine, erect setae across the front. *Rostrum* smooth and shiny with a lateral stria to the antennae, elsewhere impunctate. *Prothorax* about as long as broad, rather strongly inflated on the sides at the middle, the subapical constriction shallowly, broadly, and inconspicuously continued across the dorsum, which is closely set with small, coarse punctures; punctures concealed by white scales on the sides of the disk, with an irregular, broad, longitudinal median band of erect yellow setae, apex with a row of medianly inclined setae, and with a row of broad scales distally of them on the sides; base densely packed with minute yellow scales. *Elytra* thinly clothed with white farinaceous scales, less than twice as long as broad (4.25:2.5), more than twice as long as the prothorax (4.25-1.75), broadest at the middle, broadly rounded on the sides from the base to the apical third, thence sharply tapered to the apex; the intervals broader than the striae and each bearing a row of erect lanceolate setae that become much longer apically, striae rather distinctly impressed between the punctures which are not very large. *Legs* slender, densely squamose, sparsely setose. *Sternum* with the mesosternal receptacle terminating at the posterior margin of the hind coxae, very shallow and open, the side walls cariniform and not extending anterior to the front margin of the mesocoxae, posterior margin crescentiform, side walls parallel with the axis of the body; metasternum closely punctate and with many fine, curved setae. *Venter* with the intercoxal process not quite as broad as the length

of the first ventrite which is about twice as long as the second, the suture between them not entirely obliterated, finely punctured, the punctures being fine setae. Length, 2.1 mm; breadth, 0.9 mm.

Huahine, Society Islands. Holotype, presumably a female, collected by me while beating *Blechnum* fern on the northwest ridge of Mount Turi, elevation 2,000 feet, October 1, 1934.

This is one of the most distinct of the described species. Its peculiar elytra together with the form of its flat, open mesosternal receptacle will serve to separate it from all of the other known species.

12. *Microcryptorhynchus rubellus*, new species (fig. 4, *m*).

Derm dark-reddish, the amorphous incrustation paler than the derm, variable, the scaling white.

Head reticulate, hardly punctate, a row of setae around the eyes. *Rostrum* with four striae from the base to the antennae, thence confusedly punctate to the apex. *Prothorax* slightly longer than broad, broadest at the middle, rather strongly tumid in the basal two thirds, the subapical constriction distinctly continued across the dorsum; the punctures medium sized, separated by a distance equal to their diameters or more and each bearing a farinaceous or stellate scale; a few cylindrical, sharp setae on the disk and a double row at the apex. *Elytra* with very small, farinaceous, inconspicuous scales, two fifths longer than the prothorax (5:3), broadly rounded on the sides; the intervals hardly broader than the striae, the alternate intervals each with a row of erect, lanceolate setae that are longest at the apex; striae punctures rounded, rather coarse, separated by a distance about equal to their diameters. *Legs* with rows of erect setae. *Sternum* with the mesosternal receptacle terminating at the posterior margin of the mesocoxae in the female and before the margin in the male, deep and cavernous, the side walls hardly projecting above the metasternum behind, but complete and extending forward almost to the fore coxae, U-shaped. *Venter* with the intercoxal process as broad as the length of the first ventrite; the first two ventrites reticulate, with small, scattered punctures and a few fine setae; ventrite five with numerous setae that usually form a median apical tuft. Length, 1.2-1.5 mm; breadth, 0.6-0.7 mm.

Huahine, Society Islands. Holotype female, and eight paratypes collected by me while beating shrubs on the southwest slope of Mount Turi, at elevations between 1700 and 2100 feet, October 1, 1934.

This small species can be distinguished from the other Huahine species by its inflated prothorax and by the setae of the elytra which occur only on the alternate intervals.

TAHITI

The 18 Tahitian species have caused me no little difficulty. They represent a rather closely allied assemblage, in which many of the

intermediate species have not as yet been “weeded out”; the result is that most of them, although often having distinct facies, are rather monotonously alike and display few outstanding differences. The key, therefore, was difficult to construct.

Two of the Huahine species have setae on all of the elytral intervals, and more than half of those from the Austral Islands have a similar arrangement. On all of the Tahitian species, however, the setae uniformly occur only on the alternate intervals.

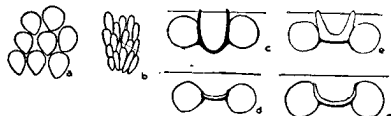


FIGURE 1.—Features of Cryptorhynchinae: *a*, scales before the scutellum of *Orochlesis gibbera* Zimmerman; *b*, scales before the scutellum of *O. lunata* Zimmerman. Diagrams of mesosternal receptacles of: *c*, *Microcryptorhynchus discretus*, female, open with complete side walls; *d*, *M. fosbergi*, male, without side walls; *e*, *M. fulgidus*, male, cavernous and with complete side walls; *f*, *M. angustatus*, female, with short side walls.

Key to Species

1. Mesosternal receptacle without high side walls that project anteriorly beyond the front margin of the mesocoxae (fig. 1, *d*).....2
 Mesosternal receptacle with complete, high side walls that project forward beyond the front of the mesocoxae and completely separate the coxae from the pectoral channel (fig. 1, *c*, *e*).....4
2. (1). Elytra and prothorax for the most part distinctly black, the rostrum not distinctly carinate or sulcate, much flattened, smooth and very shiny in the female.....**M. fosbergi**
 Derm for the most part reddish-brown, the rostrum finely carinate or sulcate, not very flattened, smooth or shining in the female.....3
3. (2). Hind margin of the mesosternal receptacle an arcuate carina between the mesocoxae; without distinct side walls that separate the mesocoxae from the pectoral channel (as in fig. 1, *d*); ventrites one and two coarsely reticulate, closely punctate, and with short fine setae.....**M. similis**
 Hind margin of the mesosternal receptacle hemispherical, continued slightly forward as side walls that separate the mesocoxae from the pectoral channel (fig. 1, *f*); ventrites one and two not coarsely reticulate, shiny, the punctures well separated, without conspicuous setae.....**M. angustatus**
4. (1). Mesosternal receptacle open, the posterior margin not overhanging, the floor (using the expression while viewing the specimen on its back, in reality the “ceiling”) visible throughout the length of the channel (fig. 1, *c*).....5

- Mesosternal receptacle cavernous, the posterior margin overhanging; the floor of the channel concealed at the apex (a pin inserted in the cavity will have its tip concealed (fig. 1, *e*).....8
5. (4). Scaly area at base of prothorax Δ -shaped (fig. 4, *a* or *d*).....6
 Scaly area at base of prothorax arcuate in dorsal outline (fig. 4, *o*).....**M. confinis**
6. (5). Striae as broad as the intervals; striae punctures large, deep and coarse**M. discretus**
 Intervals broader than the striae; the striae punctures shallow, not large and coarse.....7
7. (6). Intervals moderately, but distinctly convex, their setae mostly elongate-oval and subsquamiform.....**M. pervisus**
 Intervals flat, their setae mostly long, slender and sharp, especially in the apical half.....**M. modicus**
8. (4). Prothorax as broad or distinctly broader than long, very coarsely, deeply, subconfluently, and reticulately punctate; elytra subrotund, but slightly longer than broad.....**M. vagus**, page 17
 Elytra distinctly longer than broad, prothorax usually distinctly longer than broad, never broader than long.....9
9. (8). Prothorax approximately as broad as long or somewhat longer than broad, but never nearly a fourth longer than broad.....11
 Prothorax about one fourth longer than broad.....10
10. (9). Shining, prothorax with a broad Δ of scales at the base, elytral intervals convex, striae punctures large, deep, and coarse.**M. ambiguus**
 Dull, prothorax without a broad Δ of scales at the base, elytral intervals flattened.....**M. irroratus**
11. (9). Pronotum very densely, often coarsely, punctate throughout, punctures most often very close and subconfluent; derm usually dull and often with a very dense amorphous incrustation.....15
 Pronotum never densely or coarsely punctate, often partially impunctate, especially near the base of the disk, punctures, if generally distributed, always well separated and never subconfluent and reticulately placed; derm most often conspicuously shining and usually free from incrustation.....12
12. (11). Scaly area at base of prothorax very high, peaked in the middle, conspicuously, though broadly, Δ -shaped; elytra very convex in dorsal outline, longitudinal dorsal contour of the prothorax and elytra conspicuously discontinuous, elytra rising above the prothorax (fig. 2, *e*), striae not very deep, their punctures shallow and rather inconspicuous.....**M. convexus**
 Scaly area at base of the prothorax simply convex, never conspicuously peaked in the middle, elytra not conspicuously convex in longitudinal outline, but rather flatly arcuate; the longitudinal dorsal contour of the prothorax and the elytra but slightly interrupted, elytra not rising above the prothorax (fig. 2, *a-d*); striae deep and well defined, punctures rather deep and distinct.....13
13. (12). Elytra arcuate or evenly convex throughout in longitudinal dorsal outline (fig. 2, *b*), elytral setae slanting or prostrate except on the declivity, never conspicuously erect on the disk.....14
 Elytra somewhat flattened in longitudinal dorsal outline in the basal

- half (fig. 2, *d*); pronotum with widely spaced punctures throughout, elytral setae conspicuously erect.....**M. monte vagus**
14. (13). Derm conspicuously shiny, elytra attenuated behind and subcaudate, rather broadly inflated on the sides (fig. 4, *j*); disk of the prothorax without obvious punctuation.....**M. fulgidus**
 Derm dull, or at most not conspicuously shiny, elytra evenly arcuate from base to apex and not inflated and not tending to become caudate behind (fig. 4, *f*); disk of the prothorax with small but distinct setiferous punctures.....**M. fraudator**
15. (11). Elytra broad and conspicuously flattened above (fig. 2, *c*), flattened area very evident when viewed from above, densely encrusted, over two mm in length.....**M. planatus**
 Elytra not broad and conspicuously flattened, longitudinal dorsal outline usually convex, but if slightly flattened when viewed from the side, the size is less than 2 mm and the elytra appear to be uniformly convex when viewed from above.....16
16. (15). Prothorax but slightly longer than broad, conspicuously swollen on the sides at the middle (fig. 4, *l*), the subapical constriction sharply defined and continued strongly and deeply across the dorsum (fig. 2, *a*), punctuation on the disk shallow, the punctures distinctly separated; elytra hardly twice as long as the prothorax, densely clothed with an amorphous incrustation.....**M. brevis**
 Prothorax distinctly longer than broad, not so conspicuously swollen on the sides as fig. 4, *l*; the subapical constriction not deeply and strongly continued across the dorsum; punctuation coarse and close, derm distinctly roughened by the subconfluent punctures; elytra distinctly twice or more than twice as long as the prothorax17
17. (16). Pronotal punctures individually indistinct, but the prothorax very finely punctate, coarsely reticulate, giving the appearance of fine granulation; scaling on the base of the prothorax inconspicuous and not convex in dorsal outline; elytra flattened in longitudinal dorsal outline before the declivity; intervals broader than the striae**M. exilis**
 Pronotal punctures distinct and coarse though small; elytra usually distinctly convex in longitudinal dorsal outline, but if slightly flattened before the declivity the squamose area at the base of the prothorax is broad, distinct and emarginate in the middle.....18
18. (17). Setae on the rostrum and interocular area short and tending to be somewhat sub-squamiform, derm reddish, rather pale, the basal squamose area on the prothorax conspicuously convex, broad and normally distinctly notched in the middle; a small, slender species found principally on *Freycinetia* in the highlands on Mount Aorai**M. freycinetiae**
 Setae on the rostrum and interocular area long, slender and bristling, not tending to be squamiform, in four distinct rows and borne from four distinct striae behind the antennae on the rostrum; prothorax with the punctures often concealed by pale scale-like caps, which are condensed and form a broad, pale, longitudinal stripe on each side, the basal squamose area narrow, not distinctly convex.....**M. orofenae**

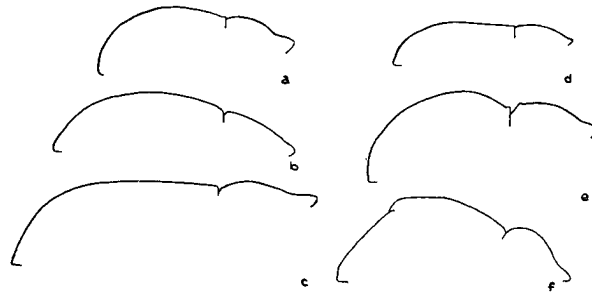


FIGURE 2.—Dorsal outlines of new Cryptorhynchinae: *a*, *Microcryptorhynchus brevis*; *b*, *M. fulgidus*; *c*, *M. planatus*; *d*, *M. montevagus*; *e*, *M. convexus*; *f*, *Phanerostethus ingens*. *a-e* drawn to same scale; *f*, to a smaller scale.

13. *Microcryptorhynchus fosbergi*, new species (figs. 1, *d*; 4, *g*).

Derm dull, piceous, appendages paler, legs and apex of the elytra and usually the last three ventrites ferrugineous, without an amorphous incrustation, but rather greasy; without scales above except for a narrow band at the basal margin of the pronotum; setae white or yellow.

Head coarsely reticulate, bare or with very small scattered scales, with a few erect setae between the eyes. *Rostrum* not carinate or sulcate, with setae near the base only, reticulate and shorter in the male, very shining in the female, distinctly flattened dorso-ventrally. *Prothorax* longer than broad (3.5:3), swollen on the sides, broadest at about the middle; the subapical constriction feeble; coarsely reticulate, punctures of the dorsum shallow and often difficult to perceive from above, the disk often appearing impunctate; setae scattered, erect, longer and more numerous at the apex. *Elytra* elongate-oval, almost twice as long as broad (8:4.5); rather evenly arcuate on the sides from the base to the apex; coarsely reticulate, striae narrower than the intervals, punctures oval, variable; alternate intervals each with a row of long, cylindrical, sharp pointed setae. *Legs* with a few erect setae, heavier and most numerous above. *Sternum* with the mesosternal receptacle open, without side walls, terminating at about the middle of the mesocoxae in the male and near the posterior margin in the female; in the female the posterior wall is indicated merely by an arcuate carina between the mesocoxae; in the male this carina is somewhat heavier and the mesosternum before it is distinctly excavated. *Venter* coarsely reticulate, with small scattered punctures bearing short, hair-like setae. Length, 1.1-2 mm; breadth, 0.4-0.8 mm.

Tahiti, Society Islands. Holotype male, allotype female, and a series of 128 other specimens collected by F. R. Fosberg on the east slope of Mount Orofena, elevation 4500 feet, September 24, 1934, from *Cyathea* fronds. The specimens were very numerous on the walls of a tent after they had crawled off the tree fern fronds,

which had been cut and laid on the floor of the tent to make a mattress.

This species is extremely variable in size, the smaller specimens being only about one half the bulk of the larger ones. The sculpturing of the derm is often obscured by a thin greasy film that covers it. In some specimens the legs are piceous, while in others, especially the larger individuals, the legs are decidedly reddish. A large and a small specimen, taken separately, might be thought to represent different species on superficial examination, but with a series the intergradation can be seen. This species is another of the *gracilis* group, which is distinct in having the mesosternal receptacle without side walls. It is easily distinguished from the other two species of the group from Tahiti by its black color.

I take pleasure in dedicating this species to its collector and my friend, Mr. F. R. Fosberg, assistant botanist of the Mangarevan Expedition, with whom I spent many profitable hours collecting in southeastern Polynesia, in recognition of his aid in the identification of host plants.

14. *Microcryptorhynchus similis*, new species.

Derm reddish-brown and reticulate throughout, sometimes covered with an amorphous crust; without scaling except for a band of very small scales on the basal margin of the prothorax.

Head reticulate and with small punctures, the derm usually somewhat darker. *Rostrum* irregularly and finely carinate, with scattered, small, erect, hair-like setae to the apex. *Prothorax* distinctly longer than broad (7:6), broadest at about the middle, gradually, arcuately expanded from the base to about the middle and thence narrowed to the weak but distinctly subapical constriction that is continued broadly across the dorsum; coarsely reticulate; the punctures round, close, rather coarse and distinct; with scattered, erect setae that are longer and most numerous at the apex. *Elytra* twice as long as broad (8.5:4.25), rather evenly arcuate from base to apex; striae rather coarse and distinct, the alternate intervals somewhat more elevated, especially near the base, each bearing a row of fine, erect, sharp setae. *Legs* with fine, erect, sharp setae. *Sternum* with the mesosternal receptacle terminating at about the middle of the mesocoxae in the male and near their hind margins in the female; without side walls, the rostrum fitting into a hollow in the mesosternum that has an arcuate carina at its apex between the mesocoxae; metasternum rather coarsely and closely punctate. *Venter* with the first two ventrites evenly and closely set with round punctures, 3-5 impunctate; strongly convex in the female, slightly convex in the male. Length, 1.8-2.2 mm; breadth, 0.6-0.8 mm.

Tahiti, Society Islands. Holotype male, allotype female, and four paratypes collected by me on Mount Aorai Trail, September 13, 1934,

elevation 3500 to 4500 feet; the holotype was beaten from shrubs, while all the others were beaten from ferns.

This species is very closely allied to *M. fosbergi* and may be difficult to distinguish from large immature specimens of that species. It is in general somewhat larger than that species, its reddish-brown color is characteristic of adult specimens, and the rostrum is distinctly, though finely carinate, and not very flattened and shiny in the female. The structure of the mesosternal receptacle is the same in both species.

15. *Microcryptorhynchus angustatus*, new species (fig. 1, f).

Derm dull, reddish-brown throughout, without an amorphous incrustation, but often with a greasy covering; with a single row of pale scales on the basal margin of the prothorax; setae white or yellow.

Head with a distinct interocular fovea, with a row of erect setae around the inner margins of the eyes; derm coarsely reticulate; with four rows of fine, erect setae behind the antennae. *Prothorax* less than one fourth longer than broad (4.25:3.75); the subapical constriction not strongly developed, continued broadly across the dorsum; closely punctured, the punctures round, distinct and deep, interstices coarsely reticulate, derm appearing wet, setae scattered on the disk but forming a complete line at the apex. *Elytra* almost twice as long as broad (9:5), broadly arcuate from base to apex; striae rather coarse, narrower than the intervals, punctures round, deep, close, and distinct; the alternate intervals each with a row of long, lanceolate or very slender erect setae. *Sternum* with the mesosternal receptacle terminating at about the middle of the mesocoxae in the male and at their posterior margins in the female, the posterior margin hemispherical, without side walls before the mesocoxae but with a slight wall separating the pectoral channel from the mesocoxae; metasternum coarsely and closely punctate and coarsely reticulate. *Venter* with the first two ventrites shining, very fine reticulate, with distinct, round punctures separated by at least their own diameters, without distinct setae; ventrites 3-5 impunctate. Length, 1.9-2.2 mm; breadth, 0.8-1 mm.

Tahiti, Society Islands. Holotype male, allotype female, and four paratypes from *Cyathea* fronds at an elevation of 4500 feet, September 24, 1934; and two paratypes from an elevation of 4,000 feet, September 20, no host recorded. All of the specimens were collected by F. R. Fosberg on the east slope of Mount Orofena.

This species is related to *M. fosbergi* and *M. similis* and can be distinguished from them by its more robust form, by its distinct mesosternal receptacle which has a hemispherical hind margin and short side walls that partially cover the inner sides of the mesocoxae, instead of a simple, arcuate, cariniform hind margin and with short side walls; the first two ventrites are less coarsely and closely punctate than in the preceding two species, and they are shining instead

of dull and coarsely punctate. The interocular fovea is distinct and rather coarse in this species. Like *M. fosbergi* and *M. similis* it belongs with *M. gracilis* and its allies in not having high side walls to the mesosternal receptacle that project anteriorly beyond the front margin of the mesocoxae.

16. *Microcryptorhynchus confinis*, new species (fig. 4, o).

Female. Derm reddish-brown with the prothorax black; not covered with a very dense amorphous incrustation, but sometimes with a light incrustation; scaling at the base of pronotum yellow.

Head reticulate, with very small punctures bearing small scales, interocular area flattened and with a single row of erect setae along the inner margins of the eyes. *Rostrum* with four rows of fine, erect setae behind the antennae, the middle row often somewhat abraded; distinctly and finely striate. *Prothorax* about one fourth longer than broad, swollen at the middle on the sides; the subapical constriction distinct but not very strongly developed on the sides, but broadly and distinctly impressed across the dorsum; derm coarsely reticulate, punctures medium sized and rather coarse, separated by a distance not greater than their diameters; base with a broadly arcuate, flattened, densely squamose area that is feebly notched at the apex and impressed down the middle; setae irregularly scattered. *Elytra* almost three fourths as broad as long, not quite twice as long as prothorax, evenly arcuate from the base to the subapical constriction; striae as broad or broader than the intervals, punctures large, deep, close, and subquadrate, stria nine deeper and with the punctures confluent at the base; intervals about as broad as the septa between the striae, alternate intervals bearing a row of long, slender, sharp setae. *Legs* with rather short erect setae. *Sternum* with the mesosternal receptacle deep, open behind, coarsely reticulate within, the posterior wall cariniform, terminating at the posterior margins of the mesocoxae in the female; metasternum very coarsely reticulate, with scattered punctures bearing erect setae; about three fourths the length of a metacoxa at its narrowest part between the mid and hind coxae. *Venter* coarsely reticulate, the intercoxal piece impressed in the female, the first two ventrites otherwise convex, with rather large, shallow, close punctures bearing short setae; ventrites 3-5 without obvious punctuation. Length, 1.8 mm; breadth, 0.7 mm.

Tahiti, Society Islands. Holotype female, and one female paratype collected by me while beating ferns on Mount Aorai Trail, at an elevation between 3500 and 4500 feet, September 13, 1934.

Owing to the structure of its mesosternal receptacle, this species belongs in the *discretus-pervisus-modicus* complex. It can be distinguished from those three species by the fact that it does not have the squamose area at the base of the prothorax distinctly pointed at the top. Its coarse punctuation will separate it from *M. pervisus* and *M. modicus* and its longer and heavier prothorax with its arcuate, basal squamose area will serve to separate it from *M. discretus*.

17. *Microcryptorhynchus discretus*, new species (fig. 4, a).

Derm reddish-brown to shiny black, usually densely clothed with a variable amorphous incrustation that often supports a mass of black mould.

Head coarsely reticulate and finely punctate, interocular area flattened and with a vague median fovea, with a single row of slender, erect, pale setae at the inner margins of the eyes, crown with small, scattered scales capping the punctures. *Rostrum* in the male with four rows of erect setae to the antennae and fine, scattered setae to the apex, with elongate, longitudinally subconfluent punctures that give the rostrum the appearance of being finely carinate, the median line often appearing to be a polished carina, expanded beyond the antennae; in the female the setae are less conspicuous and are minute distad of the antennae and that region is not distinctly expanded as in the male. *Prothorax* distinctly longer than broad (4:3.5), broadest at the middle, the subapical constriction feebly developed on the sides but deeply impressed across the dorsum; base with a steep, flattened Δ -shaped area, this area and the basal margin conspicuously and densely clothed with pale scales; pronotum normally rather coarsely punctate, punctures rather large, rounded and close-set; with scattered, erect setae most common on the disk and at the apex. *Elytra* less than twice as long as broad (7:4), nine striate, striae coarse, broader than the intervals, punctures deep, very large, rounded or subquadrate; intervals not much broader than the septa between the strial punctures, alternate one each with a row of rather long, sharp setae. *Legs* with true scaling and erect setae, femora stout. *Sternum* with the mesosternal receptacle terminating at about the middle of the mesocoxae in the male and slightly beyond their posterior margins in the female, side walls complete, deep but distinctly open behind, coarsely reticulate within, the hind margin distinctly raised above the level of the metasternum; metasternum between the mid and hind coxae narrower than a hind coxa. *Venter* with the suture between the first two ventrites often distinct, the first ventrite almost twice as long as 3-5 together; in the male the first two ventrites are conspicuously concave down the middle and ventrites 3-5 are usually bent abruptly downward so that the pygidium is completely exposed and the anal opening is rounded and broadly open; the fifth ventrite with a tuft of hairs on each side of its posterior margin and the pygidium conspicuously and densely clothed with a mound-like tuft of yellowish hair; venter of the female with only the base of the first ventrite concave, the first two ventrites otherwise convex, punctures, as in the male, conspicuous, rounded, often giving rise to short setae, the last three ventrites normal, the fifth bearing a single, dense median tuft of yellowish hair. Length, 1.3-2.2 mm; breadth, 0.6-0.9 mm.

Tahiti, Society Islands. Described from a series of 33 specimens collected by me as follows: holotype male, allotype female, and 24 other specimens collected on Mount Aorai Trail at elevations between 3500 and 4500 feet, September 13, 1934; the holotype and allotype and 19 of the other specimens were beaten from ferns, four specimens were beaten from shrubs, and one from *Blechnum* fern; two specimens were beaten from ferns at 4,000 feet on September 16; on September 14, at elevations between 4500 and 5500 feet one speci-

men was beaten from shrubs and two from *Weinmannia* bushes; on September 15, between elevations of 5500 and 6300 feet, one specimen was beaten from ferns and one was found on dead *Freycinetia* leaves.

This is a distinct and readily recognized species. The Δ -shaped area of pale scales on the base of the prothorax together with its coarse sculpturing is characteristic. Some specimens have a conspicuous, shaggy coat of a blackish mould on their dorsums. The males can easily be distinguished by their concave venters that usually have the last three ventrites bent downward exposing the yellow tufted pygidium. This species is allied to *M. pervisus*, *M. modicus*, and *M. confinis*. Its more sharply pointed prothoracic scaly area and its coarse punctuation will serve to distinguish it.

18. *Microcryptorhynchus pervisus*, new species (fig. 4, d).

Female. Derm reddish-brown to black, moderately shiny, without a heavy amorphous incrustation.

Head reticulate and with small, round, shallow punctures, most of which are capped with rounded scales; the interocular area flattened and with a small interocular fovea, with a single row of long, slender, erect setae along the inner margins of the eyes. *Rostrum* with numerous fine, erect setae at the base and on either side of the median line to the antennae, with small, scattered punctures from the antennae distad and without sulci or carinae. *Prothorax* slightly longer than broad, widest at about the middle, the subapical constriction feebly developed and just perceptibly impressed across the dorsum; punctures rounded, rather evenly and closely placed, separated by a distance no greater than their diameters and usually capped with a pale scale; base with a broadly Δ -shaped, flattened, densely squamose area; setae forming a longitudinal median band and a row around the anterior margin. *Elytra* five eighths as broad as long, twice as long as the prothorax, rather inflated on the sides to the middle and thence narrowed to the broadly rounded apices; nine striae, striae narrower than the intervals, their punctures most distinct on the disk near the base, elsewhere rather inconspicuous, bearing pale scales; intervals moderately convex, alternate ones each bearing a row of elongate oval squami-form setae that are longer laterally and distally. *Legs* with pale scales and comparatively short, inclined setae. *Sternum* with the mesosternal receptacle open behind, terminating at about the middle of the mesocoxae in the female, its margin distinctly raised above the metathorax, finely reticulate internally; metasternum between the mid and hind coxae about three fourths the length of a metacoxa. *Venter* with the intercoxal piece slightly impressed, its anterior margin broadly arcuate; the first two ventrites distinctly convex, closely punctate, the punctures bearing short setae or rounded scales; ventrite five with numerous fine setae and small punctures. Length, 2.2 mm; breadth, 1 mm.

Tahiti, Society Islands. Holotype female collected by me while beating ferns on Mount Aorai Trail at an elevation between 3500 and 4500 feet, September 13, 1934.

This species is related to *M. discretus*, but can be distinguished from that species by its larger size, by not having such coarse punctuation, by having the intervals broader than the striae, the strial punctures not large and coarse, the elytral setae elongate-oval instead of long and slender, and the mesosternal receptacle terminating between the mid coxae instead of beyond their posterior margins in the female; the squamose area at the base of the prothorax is broader and not so sharply pointed at the top; the subapical constriction is not deeply and conspicuously continued across the dorsum.

19. *Microcryptorhynchus modicus*, new species (fig. 4, r).

Male. Derm reddish-brown to black, not concealed by a heavy amorphous incrustation.

Head with close, round scales that almost conceal the reticulate derm; interocular area with a single row of erect, narrow, spatulate setae around the eyes. *Rostrum* with numerous rounded scales at the base, and with two conspicuous lateral rows of erect setae from the base to the antennae but with four rows from just before the antennae distally; without striae or sulci. *Prothorax* distinctly longer than broad, expanded at the middle on the sides; the subapical constriction almost obsolete and not impressed across the dorsum; base with a broadly A-shaped, flattened, densely squamose area; derm reticulate, shallowly and rather indistinctly punctate, punctures often capped with pale scales; setae forming a distinct longitudinal median band, two vague, irregular, longitudinal rows, a transverse row before the apex and a row on the apical margin. *Elytra* not quite twice as long as broad, twice as long as the prothorax, rather evenly arcuate from base to apex, broadest before the middle; base slightly elevated, feebly emarginate at the middle; striae narrower than the intervals, punctures not coarse, rather shallow, somewhat elongate or subrectangular; intervals flat, alternate ones each with a row of erect setae, the first two rows are lanceolate in the basal half, elsewhere they are long, slender, and sharp. *Legs* with pale scales and short setae except for one or two dorsal rows of long, erect setae. *Sternum* with the mesosternal receptacle deep, open behind, terminating between the mesocoxae in the male, the posterior margin hardly raised above the metasternum, the lateral walls high, touching the fore coxae; metasternum concave in the middle, slightly more than one half the length of a metacoxa at its narrowest point between the mid and hind coxae. *Venter* with the first two ventrites deeply concave, coarsely reticulate, punctuation hardly discernible; ventrite five emarginate at the apex; pygidium with a broad tuft of hair. Length, 1.6 mm; breadth, 0.7 mm.

Tahiti, Society Islands. Holotype male, collected by F. R. Fosberg on the east slope of Mount Orofena, elevation 4,000 feet, September 20, 1934.

This small species is most closely allied to *M. discretus* and *M. pervisus*. It can be distinguished from *M. discretus* by the punctuation, which is shallow and not coarse, and by the intervals which

are broader than the striae; and it differs from *M. pervisus* in its smaller size, in its flat and not convex elytral intervals, and in most of the elytral setae which are long and slender.

20. *Microcryptorhynchus ambiguus*, new species (fig. 4, *i*).

Female. Derm shiny, reddish-brown to black, without an amorphous incrustation.

Head coarsely reticulate, with small, inconspicuous scales; interocular area with a median fovea and a single row of erect, slender, sub-spatulate setae along the inner margins of the eyes. *Rostrum* with a single row of fine, erect setae from the base to the antennae, finely punctate and without dorsal striae or carinae. *Prothorax* almost one fourth longer than broad, broadest at the middle and about equally constricted before and behind the middle; the sub-apical constriction shallowly marked on the sides and but slightly impressed across the dorsum; base with a broadly triangular, scaly area, rounded at the top; punctuation continuous and distinct throughout, punctures small but conspicuous, separated by distances not greater than their diameters, coarser on the sides. *Elytra* somewhat attenuated and subcaudate behind, broadest at about the middle; about one half as broad as long, twice as long as the prothorax; evenly convex in longitudinal dorsal outline; basal margin slightly elevated; striae deep and coarse, almost as broad as the intervals, striae punctures large, deep and subquadrate; intervals convex, alternate ones each bearing a row of slender, erect setae. *Legs* with scattered, pale scales and short, inclined setae. *Sternum* with the mesosternal receptacle deep, slightly cavernous, posterior wall raised well above the level of the metasternum, terminating at the hind margin of the mesocoxae in the female; metasternum coarsely punctate, three fourths the length of a metacoxae at its narrowest point, between the mid and hind coxae. *Venter* with the intercoxal piece impressed, ventrites one and two otherwise conspicuously convex in the female, densely set with medium sized, setiferous punctures; ventrite five convex, without obvious punctuation; with a conspicuous median tuft of yellowish hair. Length, 2 mm; breadth, 0.7 mm.

Tahiti, Society Islands. Holotype female, collected by me while beating ferns on Mount Aorai Trail, elevation 4,000 feet, September 16, 1934.

This species bears a superficial resemblance to *M. fulgidus*, but it may be distinguished from that species in that its pronotum is proportionately longer and distinctly punctate throughout, the elytra not so inflated, and the striae coarser and broader—almost as broad as the intervals—and in the striae punctures which are large, deep, coarse, and subquadrate.

21. *Microcryptorhynchus irroratus*, new species (fig. 4, *h*).

Derm reddish-brown to black, glistening as if wet, without a dense amorphous incrustation; the sides of the disk of the pronotum with a longitudinal band of pale scales in fresh specimens.

Head reticulate, with very minute punctures and scales; the interocular

area with a single row of slender, erect setae along the inner margins of the eyes. *Rostrum* with four rows of erect setae behind the antennae that arise from four striae, the median line often appearing as a polished carina. *Prothorax* only about three fourths as broad as long, gradually expanded on the sides to the middle and thence narrowed to the subapical constriction which is clearly marked on the sides and continues broadly but conspicuously across the dorsum; punctuation continuous throughout, punctures small and close set; the erect, slender, spatulate setae scattered on the disk and most numerous at the apex; the scaly area at the base straight across and not higher at the middle; fresh specimens have a longitudinal band of pale scales on either side of the disk. *Elytra* rather evenly arcuate on the sides from the base to the subapical constriction; not quite twice as long as broad, twice as long as the prothorax; striae narrower than the intervals, punctures deep and elongate, the tenth stria distinct from the base to the metacoxa; intervals distinctly broader than the striae, almost flat, alternate ones each bearing a row of erect setae that are comparatively short on the disk and are much longer behind. *Legs* with scattered, short, erect setae. *Sternum* with the mesosternal receptacle deep and cavernous, the posterior margin distinctly raised above the level of the metasternum, terminating slightly behind the middle of the mesocoxae; metasternum broad, fully as broad as a metacoxa at its narrowest point between the mid and hind coxae. *Venter* with the first two ventrites closely set with small, setiferous punctures, ventrite five with only a few small setae. Length, 2-2.2 mm; breadth, 0.7-0.9 mm.

Tahiti, Society Islands. Holotype and three paratypes collected by me while beating ferns on Mount Aorai Trail at elevations between 5500 and 6300 feet, September 15, 1934.

This species may be distinguished by its dull, wet-appearing derm, its elongate form combined with its metasternum which is fully as long between the mid and hind coxae as a metacoxa, by its having the tenth stria distinct from the base to the metacoxa instead of being obsolete, and the scaly area at the base of the pronotum straight across.

22. *Microcryptorhynchus convexus*, new species (fig. 2, *e*).

Derm reddish-brown, with or without a thin amorphous incrustation, somewhat shining.

Head reticulate, with small punctures usually concealed by the conspicuous pale scales they bear; interocular area flattened and with an indistinct median fovea, with a single row of erect setae along the inner margins of the eyes, each row terminating on the vertex where there are usually several erect setae. *Rostrum* with four rows of erect setae from base to the antennae, borne from shallow striae; shining and more slender from the antennae to the apex in the female. *Prothorax* comparatively large and heavy, distinctly longer than broad (4:3.5), broadest at the middle, constricted before the base and behind the apex; the subapical constriction rather prominent on the sides and continued rather deeply and narrowly across the dorsum; scaly area at the base broad, broadly A-shaped; punctures on the disk rather fine and shallow, separated by

a distance about equal to their own diameters; setae scattered on the disk and with a row along the apical margin. *Elytra* not quite twice as long as broad (6.5:4), less than twice as long as the prothorax in the same proportions; base distinctly sinuate, emarginate in the middle, basal margin slightly raised; rather evenly arcuate from base to apex on the sides; strongly convex in longitudinal dorsal outline, highest before the middle, the division between the prothorax and elytra angulate and sharply marked; the nine striae shallow and not coarse, punctures shallow and rounded, each normally bearing a pale scale; intervals flat, about twice as broad as the striae on the disk, alternate ones each bearing a row of rather slender, erect, spatulate setae. *Legs* with rather closely placed pale scales and rather short slanting setae. *Sternum* with the mesosternal receptacle deep and cavernous, the posterior overhanging area very broad and flattened, the posterior margin of the pectoral channel U-shaped, terminating at the anterior margin of the mesocoxae in the male and about the middle in the female; metasternum at its narrowest point between the mid and hind coxae only about as broad as one half the length of a metacoxa. *Venter* with the first two ventrites with round punctures separated by a distance about equal to their diameters, bearing rounded scales or slanting setae, convex in the male; ventrite five coarsely reticulate, impunctate, and with only a few setae near the apex; pygidium densely clothed with long hair in the male. Length, 1.9-2 mm; breadth, 0.8 mm.

Tahiti, Society Islands. Holotype male and allotype female, collected by me as follows: the male was beaten from *Metrosideros*, at an elevation between 4500 and 5500 feet on Mount Aorai Trail, September 14, 1934; the female was beaten from ferns on the same trail at an elevation of 4,000 feet, September 16.

Owing to its rather peculiar facies, this species is distinct from the other species, but it might be confused with *M. discretus* and its allies because of the form of the scaly area at the base of the prothorax. The mesosternal receptacle separates it from that group, however. The structure of the overhanging portion of the receptacle is rather unusual in that it is very broad and flattened instead of being cariniform. The U-shaped opening is, therefore, placed farther forward than usual.

23. *Microcryptorhynchus montevagus*, new species (fig. 2, d).

Derm dark reddish-brown, reticulate but shiny, without an incrustation.

Head with numerous, conspicuous, suboval scales on the coarsely reticulate derm, interocular area with a small median fovea, with two rows of erect, spatulate setae along the inner margin of each eye. Rostrum with two rows of erect setae behind the antennae that are more slender and much less conspicuous than those between the eyes, punctuation fine, the derm not obviously striate or carinate. *Prothorax* about as broad as long, almost evenly narrowed from the middle towards the base and apex, but the subapical constriction is usually rather obvious on the sides and most often broadly, but distinctly impressed across the dorsum; the basal squamose band is rather narrow but dis-

tinctly convex; punctuation on the disk usually distinct, punctures round, separated by distances equal to or somewhat greater than their diameters, in fresh specimens they bear white scales; setae rather short on the disk and not numerous, the apical row longer. *Elytra* three fourths as broad as the prothorax, rather broadly inflated on the sides but subcaudate behind, slightly flattened in longitudinal dorsal outline before the middle or at most very slightly convex, but never conspicuously so; base practically truncate, the nine striae rather deep, punctures rounded or elongate oval; intervals convex, broader than the striae, alternate ones bearing a row of rather widely spaced, erect setae, those on the first two rows shorter and spatulate, those on the outer rows and behind longer, cylindrical, and sharp. *Legs* without scaling and with short, scattered setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating slightly behind the middle of the mesocoxae, the overhanging part somewhat flattened; metasternum at its narrowest point between the mid and hind coxae almost as broad as the length of a metacoxa, with scattered punctures bearing pale, slender, erect setae. *Venter* with the first two ventrites with small punctures bearing fine, slanting setae; ventrite five without obvious punctures and with fine, scattered setae. Length, 1.6-1.8 mm; breadth, 0.7-0.8 mm.

Tahiti, Society Islands. Holotype female, and one paratype from the east slope of Mount Orofena, elevation 4500 feet, from *Cyathea* fern fronds, September 24, 1934; and two paratypes taken at 4,000 feet on September 24, by F. R. Fosberg; one paratype beaten by me from ferns on Mount Aorai Trail, elevation 4,000 feet, September 16.

This species is closely allied to *M. fulgidus*, but the elytra are usually flattened in longitudinal dorsal outline, at least before the middle; they may be very slightly convex but never so distinctly so as in *M. fulgidus*; the prothoracic punctuation is distinct, especially on the sides, and the elytral setae are longer.

24. *Microcryptorhynchus fulgidus*, new species (figs. 1, *e*; 2, *b*, 4, *j*).

Derm dark reddish-brown, finely reticulate and rather conspicuously shiny, without an incrustation.

Head reticulate, finely punctate, with numerous pale scales; the interocular area flattened and with a median fovea, with two rows of conspicuous erect, spatulate setae along the inner margin of each eye. *Rostrum* with four short, irregular rows of erect setae usually near the base only, much less conspicuous than those between the eyes; punctuation fine, not striate or carinate. *Prothorax* but little longer than broad, almost evenly narrowed toward the base and apex from the middle; the subapical constriction usually obsolete and not or hardly evident on the sides or dorsum; the basal squamose area broadly convex, but not very wide; derm reticulate and almost impunctate, punctures hardly discernible; setae rather short and spatulate, scattered but more numerous in the apical third. *Elytra* more than one half as broad as long, twice as long as the prothorax, conspicuously inflated on the sides and broadest at about the middle, attenuated and subcaudate behind the well-marked subapical

constriction, longitudinally convex; basal margin more prominent at the humeri and there slightly produced anteriorly; the nine striae well developed, punctures rounded or elongate; intervals convex, broader than the striae; alternate ones each normally bearing a row of short, inconspicuous, usually inclined, spatulate setae. *Legs* without scaling and with short, scattered, inclined setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating at about the middle of the mesocoxae, the overhanging part broad and conspicuous; metasternum at its narrowest point between the mid and hind coxae three fourths the length of a hind coxa. *Venter* coarsely reticulate, without obvious punctuation, setae small, slender and inconspicuous, ventrites one and two convex in the female, the metasternum and the first two ventrites deeply and broadly concave, really broadly sulcate in the male; pygidium of the male with numerous erect hairs but without a dense tuft. Length, 1.8-2 mm; breadth, 0.8-0.9 mm.

Tahiti, Society Islands. Holotype male, allotype female, and three paratypes collected by me while beating ferns on Mount Aorai Trail, at elevations between 5500 and 6300 feet, September 15, 1934 and one paratype collected by F. R. Fosberg at 4,000 feet on the east slope of Mount Orofena, September 20.

This species is closely related to *M. montevagus*, but it can be separated from that species by the fact that it does not have the disk of the prothorax distinctly punctate, by having its elytra convex in longitudinal dorsal outline instead of being somewhat flattened in the basal half, and by having the elytral setae much less conspicuous.

25. *Microcryptorhynchus fraudator*, new species (fig. 4, f).

Male. Derm reddish-brown to black, coarsely reticulate, with an amorphous incrustation.

Head rather closely set with rounded, pale scales, the interocular area with a single row of slender, erect setae along the inner margin of each eye. *Rostrum* with four rows of fine, erect, curved setae from the base to the antennae and with scattered ones distally, distinctly striate and carinate behind the antennae. *Prothorax* slightly longer than broad, rather evenly arcuate on the sides, broadest at about the middle; the subapical constriction feebly impressed on the sides, but continued broadly and distinctly across the dorsum; the basal squamose area rather broad at the middle, flatly and broadly A-shaped; punctures round, separated by distances less than their own diameters, often capped with pale, round scales, discal punctures shallower and less evident than those of the sides; setae rather short, spatulate and scattered on the disk. *Elytra* not quite twice as long as broad, twice as long as the prothorax, evenly arcuate on the sides from base to the broadly rounded apex, the subapical constriction inconspicuous, the longitudinal dorsal outline convex throughout, the basal margin slightly raised, emarginate at the middle; the nine striae deep and rather coarse, punctures comparatively small and deep, usually capped with pale scales; intervals distinctly broader than the striae, slightly convex, alternate ones each bearing a row of setae, those on the disk shorter, spatulate and inclined, those at the apex longer, more slender and

erect. *Legs* encrusted and with scattered scales and slanting setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating before the middle of the mesocoxae in the male, the overhanging part very broad; metasternum at narrowest point between the mid and hind coxae not quite as broad as the length of a metacoxa. *Venter* coarsely reticulate, with the first two ventrites flattened and the first ventrite shallowly concave in the male, the punctures small and scattered, bearing short, inconspicuous setae; ventrite five impunctate and with fine scattered setae; the pygidium of the male densely clothed with hair. Length, 1.8 mm; breadth, 0.7 mm.

Tahiti, Society Islands. Holotype male, collected by me while beating shrubs on Mount Aorai Trail, at an elevation between 3500 and 4500 feet, September 13, 1934.

This species is allied to *M. montevagus* and *M. fulgidus* but is not so conspicuously shining as those two species, and its elytra are not subcaudate. The thorax is punctured much as *M. montevagus*, but the elytra are convex in longitudinal dorsal outline.

26. *Microcryptorhynchus planatus*, new species (figs. 2, c; 4, b).

Derm dark reddish-brown, densely clothed with a heavy amorphous incrustation.

Head densely squamose and encrusted, the interocular area with a single row of slender erect setae along the inner margin of each eye. *Rostrum* with four rows of fine, hair-like setae, the inner rows often inconspicuous; without conspicuous striae or carinae, coarsely reticulate and finely punctate, more shining in the female. *Prothorax* distinctly longer than broad (4.5:4), gradually expanded on the sides from the base to the rounded middle, the subapical constriction strongly marked on the sides and rather deeply and broadly continued across the dorsum; the basal squamose area convex and rather narrow, closely and densely punctate, punctures small, deep, and very close; setae rather scattered in four vague, longitudinal rows, two on the disk and two at the sides, and generally scattered beyond the subapical constriction. *Elytra* five eighths as broad as long, twice as long as the prothorax, broadly rounded on the sides, but subparallel at the middle; the disk conspicuously flattened before the declivity; the striae deep and coarse, punctures deep and subconfluent; intervals broader than the striae, alternate ones slightly more convex and each bearing a single row of long, slender, sharp, erect setae. *Legs* encrusted and bristling with sharp, erect, scattered setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating at slightly before the posterior margin of the mid coxae in the male and at about the posterior margin in the female; the overhanging part narrow; pleurae densely encrusted; metasternum densely encrusted, almost one and one half times as broad as the length of metacoxa at its narrowest point between the mid and hind coxae. *Venter* with the intercoxal piece very broad, its fore margin on a line with the anterior margins of the hind coxae and there almost squarely truncate; the first two ventrites but slightly more flattened in the male than in the female, coarsely reticulate, densely and finely punctate, with very small, fine setae and scattered, inconspicuous scales; ventrite five impunctate, with fine, scattered setae; pygidium of the male with dense erect hair. Length, 2.4 mm; breadth, 1 mm.

Tahiti, Society Islands. Holotype male and allotype female, taken by me on dead leaves of *Freycinetia* on Mount Aorai Trail, at elevations between 5500 and 6300 feet, September 15, 1934.

This is a distinct species easily recognized by its broad, flattened elytra, densely encrusted body, and rather large size. The first two striae may seem to be broader than the intervals from certain angles. The mesosternum is unusually broad between the mid and hind coxae, for it is much broader than a metacoxa rather than being narrower.

27. *Microcryptorhynchus brevis*, new species (fig. 4, 1).

Derm reddish-brown, densely clothed with a heavy amorphous incrustation that often conceals the true outline of the body.

Head densely squamose and encrusted; interocular area with a single row of erect, spatulate setae around the inner margins of the eyes. *Rostrum* with four rows of short, erect, spatulate setae behind the antennae, borne from four shallow striae. *Prothorax* slightly longer than broad, evenly expanded to the rounded middle, where it is broadest; the subapical constriction sharply, deeply, and strongly marked on the sides and continued deeply and prominently across the dorsum, the basal squamose area narrow but convex; closely and conspicuously punctate throughout, punctures separated by less than their own diameters; setae common near the apex only. *Elytra* three fourths as broad as long, twice as long as the prothorax, rather broadly rounded on the sides, the subapical constriction more pronounced in the female; longitudinal dorsal outline convex; striae rather coarse, about as broad as the intervals, punctures rounded and deep; alternate intervals bearing a single row of long, cylindrical, sharp setae. *Legs* encrusted and bristling with rather short, heavy, erect setae. *Sternum* with the mesosternal receptacle deep and cavernous, the overhanging part narrow, terminating at the hind margin of the metacoxae in the male and slightly beyond in the female; metasternum almost as long as a metacoxa at its narrowest point between the mid and hind coxae. *Venter* coarsely reticulate, with few small, fine setae; the first two ventrites not conspicuously different in the two sexes. Length, 1.4-1.8 mm; breadth, 0.6-0.8 mm.

Tahiti, Society Islands. Holotype male, allotype female, and one paratype collected by me while beating ferns on Mount Aorai Trail at an elevation between 3500 and 4500 feet, September 13, 1934; and two other paratypes collected by me on Mount Aorai Trail as follows: one beaten from shrubs between 4500 and 5500 feet, September 14, and one found on dead leaves of *Freycinetia* between 5500 and 6300 feet, September 15.

This is a rather distinct species and is not closely allied to any of the other Society Island species known to me. It may have some affinities with *M. planatus*, from which it can be distinguished by its smaller size and the fact that its elytra are not flattened. The pro-

thorax is comparatively large, and when not concealed by the incrustation, the subapical constriction is prominent.

28. *Microcryptorhynchus exilis*, new species (fig. 4, q).

Derm reddish-brown, without a dense amorphous incrustation, coarsely reticulate.

Head coarsely reticulate; the interocular area impressed, with a single row of slender, erect setae around the eyes. *Rostrum* with four rows of fine, erect setae from the base to the antennae, finely striate, with small elongate punctures distad of the antennae. *Prothorax* as broad as long, gradually expanded on the sides from the base to the rounded middle where it is broadest; the subapical constriction distinctly impressed on the sides and broadly impressed across the dorsum; finely and shallowly punctate throughout, coarsely reticulate, the derm, therefore, having the appearance of being gritty or very minutely granulated; basal scaly area narrow, straight across and not elevated at the middle; setae forming a single line around the apical margin, evidently absent from the disk, but with a few on each side. *Elytra* not quite twice as long as broad, twice as long as the prothorax, slightly arcuate on the sides from the base to the apex; the basal margin slightly elevated; the nine striae rather coarse, slightly narrower than the intervals, the striae punctures deep, rounded or oval; intervals slightly convex, alternate ones each bearing a row of slender, erect, sharp setae. *Legs* devoid of scaling, with rather short, erect, or slanting setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating slightly before the hind margin of the mesocoxae; metasternum as broad as a metacoxa at its narrowest point between the mid and hind coxae. *Venter* coarsely reticulate, the first two ventrites minutely and obscurely punctate, with very small, scattered, slanting setae; ventrite five evidently without punctures or conspicuous setae. Length, 1.7 mm; breadth, 0.7 mm.

Tahiti, Society Islands. Holotype, presumably a female, collected by me while beating ferns on Mount Aorai Trail at an elevation between 5500 and 6300 feet, September 15, 1934.

This small species seems rather out of place as it is inserted in the key. It might be associated with *M. freycinetiae*, which it resembles, but that species has coarser punctuation, the punctures on the pronotum are distinct and conspicuous, the scaly area at the base of the prothorax is convex, the prothorax is distinctly longer than broad, and the elytral striae are broader than the intervals; all of these characters disagree with this species.

29. *Microcryptorhynchus freycinetiae*, new species (fig. 4, s).

Derm pale to dark reddish-brown, coarsely reticulate, the elytra somewhat translucent, without a dense amorphous incrustation but often with a light incrustation.

Head finely and often coarsely punctate, with small scattered scales; the interocular area with a small median fovea and with a single row of erect spatulate setae along the inner margins of the eyes. *Rostrum* with two con-

spicuous lateral rows of setae from the base to the antennae and two rows between these that are finer, often abraded and difficult to see, especially in the female, but usually quite evident in the male; shining from near the base to the apex in the female, and dull and more coarsely sculptured in the male. *Prothorax* distinctly longer than broad (2.7:2.3), broadest at the middle, the subapical constriction conspicuously impressed on the sides and shallowly across the dorsum; the basal squamose area convex, usually emarginate in the middle; subconfluently, coarsely, and closely punctate throughout, punctures small, derm conspicuously roughened by the small close punctures; sharp, erect setae scattered on the disk and most numerous beyond the subapical constriction. *Elytra* distinctly more than one half as broad as long, and more than twice as long as the prothorax, rather evenly arcuate on the sides, the longitudinal dorsal outline somewhat flattened before the declivity, the base slightly and very broadly emarginate; striae coarse, broader than the intervals, punctures as broad as the striae, rounded; alternate intervals each bearing a row of rather long, erect, cylindrical, sharp setae, bristling at the apex. *Legs* with scattered, erect, sharp setae, most numerous on the dorsal sides of the femora and tibiae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating at about the middle of the mesocoxae in the male and slightly more posteriorly in the female, the margins distinctly raised above the level of the metasternum; metasternum at its narrowest point between the mid and hind coxae fully as long as a metacoxa, finely punctate. *Venter* with the first two ventrites flattened in the male, convex in the female, coarsely reticulate and finely punctate, setae small and inconspicuous, ventrite five coarsely reticulate and impunctate, with few, scattered, fine setae. Length 1.4-1.8 mm; breadth, 0.5-0.7 mm.

Tahiti, Society Islands. Holotype male, allotype female, and 24 paratypes found on dead leaves of *Freycinetia* at elevations between 5500 and 6300 feet on Mount Aorai Trail, September 15, 1934, and four paratypes beaten from ferns at 4,000 feet, September 16, Mount Aorai Trail. The 30 specimens were all collected by me. It is possible that there were some dead *Freycinetia* leaves among the ferns from which I beat four of the specimens.

This small species is rather distinct and can be recognized by its small size and rather pale coloration, by its coarsely punctured prothorax, broad elytral striae, and by its usually emarginate, white squamose area at the base of the prothorax.

30. *Microcryptorhynchus orofenae*, new species (fig. 4, e).

Derm dull, coarsely reticulate, dark reddish-brown to almost black, with a thin, irregular incrustation.

Head with very small, scattered scales; the interocular area not conspicuously flattened and evidently without a median fovea, with a single row of conspicuous, erect, spatulate setae along the inner margins of the eyes. *Rostrum* with four rows of conspicuous erect setae borne from four striae behind the antennae, with numerous, scattered fine setae beyond the antennae in the male; more shining and less coarsely punctured in the female. *Prothorax* distinctly longer than broad (3.5:3), broadest at the middle, the subapical con-

striction distinct at the sides and continued rather broadly across the dorsum; the basal squamose area narrow and almost straight across but slightly emarginate at the middle; punctuation close and coarse throughout, punctures rather small, almost touching, often capped with white scales which make a pale band on either side and are most numerous near the apex. *Elytra* slightly less than three fourths as broad as long, twice as long as the prothorax, evenly arcuate on the sides from the base to the subapical constriction, the longitudinal dorsal outline convex, the basal margin slightly raised and practically truncate; striae deep and coarse, almost or as broad as the intervals, punctures rather large, deep and rounded; alternate intervals bearing a row of erect, cylindrical, sharp setae. *Legs* with scattered, short, sharp setae. *Sternum* with the mesosternal receptacle deep and cavernous, terminating at about the middle of the mesocoxae, the overhanging part broad at the sides behind and strongly raised above the level of the metasternum; metasternum at its narrowest point between the mid and hind coxae almost, but not quite, as long as a metacoxa, coarsely and closely punctate. *Venter* with the first two ventrites coarsely and closely punctate throughout as the metasternum, with numerous short, curved setae, not conspicuously different in the two sexes; ventrite five minutely punctate and with a few fine setae. Length 2-2.2 mm; breadth, 0.8-0.9 mm.

Tahiti, Society Islands. Holotype male and allotype female, collected by F. R. Fosberg on the east slope of Mount Orofena as follows: the male from *Cyathea* fern fronds, elevation 4500 feet, September 24, 1934, and the female at 4,000 feet, September 20.

This species is very closely allied to *M. irroratus*, but it differs in being stouter, having the prothorax proportionately shorter and broader, having the elytral striae coarser and the intervals narrower; the setae on the head and rostrum are heavier and more conspicuous.

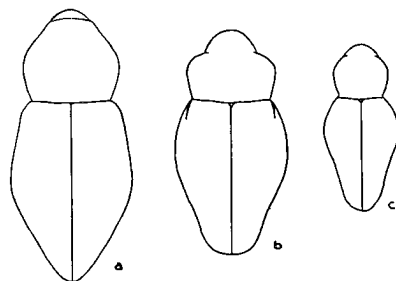


FIGURE 3.—Lateral outlines of: *a*, *Aeschylus clathratus* (Fairmaire), *b*, *Phanerostethus ingens*, new species, and *c*, *P. pallidiceps*, new species. *a*, *b* drawn to same scale; *c* to a larger scale.

Genus PHANEROSTETHUS Marshall, 1931

The genus *Phanerostethus* was erected by Sir Guy Marshall (*Insects of Samoa*, pt. 4, fasc. 5, p. 285, fig. 12, 1931) for the reception of a new Samoan species, and until the present time it has remained

monotypic. The genus is represented in the Society Islands by two new species.

This genus may be distinguished from the other Society Island genera in that it has the scutellum distinct, the mesosternal receptacle open, and the pectoral channel squamose; the body is densely squamose, both above and below; the first and second ventrites are not fused, but are separated by a distinct suture. According to Marshall this genus is most nearly allied to the Australian *Pteroporopterus*, Lea, 1912.

The two Society Island species are evidently very rare, for the two new species are each represented by a unique specimen. Among the several hundred weevils I collected in the Society Islands, there is but one specimen belonging to this genus. The two new species are to be found on the islands of Raiatea and Tahiti. Further, careful collecting should reveal new species on these and other Society Islands.

31. *Phanerostethus ingens*, new species (figs. 2, *f*; 3, *b*).

Male. Derm pale to dark reddish-brown, densely squamose above and below, the scaling predominantly yellowish or yellowish-brown; the pronotal scales yellowish-brown, with a short, basal, paler stripe before the scutellum, bounded on each side by a darker patch; the scaly pattern on the elytra is somewhat indefinite, there is a pale transverse band running from the top of the declivity and including the posterior part of the callosity on interval three to the side margins, the scaling anterior to this darker with scattered, pale scales, the scaling posterior to the transverse band reddish-brown with yellowish patches; legs with the femora with pale yellowish scales and with a darker median band, the tibiae darker at the base and apex; scaling below yellowish, that on the first two ventrites somewhat darker.

Head with the finely and sparsely punctate derm concealed by dense round scales; interocular area with a shallow, concealed, median fovea, and with a row of short, fine inconspicuous setae along the inner margins of the eyes. *Rostrum* with the dorsal outline nearly straight and continuous with that of the forehead to before the antennae where the outline is arcuate to the apex; densely squamose behind the antennae which are inserted at the middle, with six longitudinal rows of short, slender, sharp, erect setae; much more coarsely sculptured behind the antennae than beyond where it is finely punctate. *Antennae* with the first two funicular segments elongate, one slightly longer than two, two as long as three plus four, three to seven successively shorter, seven almost transverse; club as long as the preceding four segments together. *Prothorax* slightly broader than long, almost straightly expanded on the sides from the base to the rounded middle, thence strongly and deeply constricted, the subapical constriction continued deeply and broadly across the dorsum, the longitudinal dorsal outline convex in the basal half, but the entire dorsum slants forward and downward so that the apex is about one third lower than the base, the dorsal junction between the prothorax and the elytra abruptly

discontinuous, the prothorax rising steeply from the base and highest at about the basal fourth; with a short, shallow, longitudinal, median, basal impression or groove; densely and closely punctate, punctures of the disk reticulately placed and subconfluent; scaling dense, scales large, rounded, often broadly heart-shaped, flat and closely appressed or slightly concave; setae scattered, rather small, and inconspicuous. *Scutellum* very small but distinct, squamose. *Elytra* more than three fourths as broad as long (4:5.5) and almost three times as long as the prothorax (5.5:2), the base broadly and shallowly emarginate, rapidly expanded on the sides from the base, the basal half arcuate and inflated, broadest somewhat before the middle, thence almost straightly narrowed to the broadly rounded apices; the dorsal outline strongly convex throughout, highest at about the middle; striae fine but distinct, the tenth not continued behind the metacoxae, striae punctures small, rounded, very deep, widely spaced, each giving rise to a small seta at its base; intervals broad, the third expanded and giving rise to a rather large, conspicuous, elongate callosity that begins somewhat behind the base and runs caudad to slightly beyond the middle, becoming progressively larger posteriorly; interval five distinctly raised and more or less sharply cariniform on its outer margin within the basal half, intervals otherwise flattened behind the middle and at most slightly convex toward the base, except for the third which is distinctly, though feebly, convex to the apex where it joins seven and nine to form a moderately developed subapical callosity; scaling very dense, scales rounded, imbricated; the setae on the dorsal callous numerous, erect, and conspicuous, somewhat spatulate and sharply pointed, the alternate intervals each with a row of small, erect, inconspicuous setae. *Legs* densely squamose, the scales large, rounded, close or imbricated; setae scattered, slender, sharp, longer and more numerous on the tibiae; tarsi without scales and with long, slender setae, the second segment not or hardly broader than the first. *Sternum* with the mesosternal receptacle open, squamose in the posterior third, the prosternal part of the pectoral channel squamose; the metasternum between the mid and hind coxae only about one third the length of a metacoxa. *Venter* with the scaling very dense, scales imbricated, with scattered, fine, erect setae arising from concealed punctures; ventrite one broadly concave, two not quite as long as three plus four, five flattened and as long as three plus four. Length, 6 mm; breadth, 3 mm.

Raiatea, Society Islands. Holotype, a male collected by J. W. Moore in 1926 or 1927.

This is the largest known species of the genus, being almost twice as large as either of the other two species. It may easily be recognized by its large size and reddish-brown appearance together with its conspicuous, dorsal, elytral calli which are paler at their posterior extremities. It is not closely allied to either of the other species of the genus. Its large size makes it seem rather out of place with the other endemic Cryptorhynchinae of southeastern Polynesia.

32. *Phanerostethus pallidiceps*, new species (fig. 3, c).

Female. Derm reddish-brown to black, the appendages paler, densely squamose above and below, the scaling above predominantly greyish-brown

interspersed with patches of darker and paler scales; scaling on the head whitish; pronotum with a short, median, basal, pale patch bounded on each side by a dark patch before elytral intervals, 2-4, before each of these dark patches the scales form a vague, pale patch; elytra rather irregularly spotted with patches of brown scales; scutellum clothed with white scales; legs with pale scaling, the femora with a dark band beyond the middle, tibiae with a dark band before the middle; underside with greyish-yellow scales.

Head with the reticulate derm concealed by the large, round, imbricated scales, the interocular area not much narrower than the base of the rostrum, with a single row of slender, sharp setae along the inner margins of the eyes. *Rostrum* coarsely and longitudinally confluent punctate within the basal fourth and only there closely set with large, round scales, elsewhere shining and finely punctate, with about six rows of slender, sharp setae within the squamose area, but the lateral row continuing to the antennae in the coarse lateral stria above the scrobe. *Antennae* inserted at the basal two fifths of the rostrum, the scape about as long as the first four funicular segments; the first funicular segment about one half again as broad as the second, about as long as the first and half the second, two about as long as three plus one half of four, segments 3-7 successively shorter, seven transverse; the club as long as the preceding five segments together. *Prothorax* very slightly broader than long, broadest at the middle and almost equally convergent toward the base and apex, the subapical constriction not deeply impressed on the sides, but conspicuously continued across the dorsum which rises rather rapidly from the base and thence rather evenly convex to the subapical constriction, apex not much lower than the basal margin, which is slightly expanded on the sides at the humeri; punctuation coarse throughout, punctures large, deep, reticulately placed, and usually capped with large, round, concave scales, those not capped with scales bear dark setae that are anteriorly inclined and scattered, those on the disk behind the subapical constriction heavier and spatulate, those near the apex more slender and sharp. *Scutellum* small but conspicuous. *Elytra* more than three fifths as broad as long (3.5:5), and slightly more than twice as long as the prothorax, base truncate, somewhat elongate-subcordate, rather rapidly expanded on the sides from the base to the rounded, tumid basal third, narrowing almost straightly to the narrowly rounded apex, the longitudinal dorsal outline convex throughout, highest at about the middle and there somewhat higher than the pronotum; the intervals narrow and sharply impressed, the punctures inconspicuous except for a few longer ones near the base, the tenth stria terminating before the middle of the metacoxa; intervals broad and slightly convex, more strongly so at the base, intervals 3, 5, and 7 somewhat more elevated, the intervals all with a single row of short, erect, rather slender, spatulate setae except for interval three, which has two rows at about the middle where it is slightly expanded and elevated, the scaling dense, the scales large, round, and imbricated. *Legs* densely squamose and closely set with short, inclined, sharp setae; the second tarsal segment no broader than the first. *Sternum* with the mesosternal receptacle open, densely squamose behind, the pectoral channel densely squamose before the fore coxae, terminating at about the middle of the mesocoxae; the metasternum at its narrowest point between the mid and hind coxae somewhat more than a third as long as a metacoxa. *Venter* with numerous, slender, slanting setae arising from concealed punctures; the first ventrite concave in the basal two thirds, practically as long as the following three ventrites, ventrite two not quite as long as the two follow-

ing ventrites together, ventrite five longer than the preceding two ventrites together. Length, 3 mm; breadth, 1.6 mm.

Tahiti, Society Islands. Holotype female, beaten by me from *Blechnum* fern on Mount Aorai Trail, at an elevation between 3500 and 4500 feet, September 13, 1934.

This species approaches *Phanerostethus diploplus* Marshall in size, but is not closely allied to either that species or to *P. ingens*.

Genus AMPAGIA Pascoe, 1870

I have described 11 species of this genus from the Society Islands in "Ampagioid Weevils of Southeastern Polynesia" (Rhynchophora of Southeastern Polynesia publication 3, B. P. Bishop Mus., Occ. Papers, vol. 12, no. 10, 1936). The student is referred to that paper for a complete discussion of the genus with keys and illustrations of the Society Island species.

Genus AMPAGIODES Zimmerman, 1936

In the reference quoted under *Ampagia* I have described one species of this genus from Tahiti. The other five known species of the genus are found in the Austral Islands and Rapa.

Genus OROCHLESIS Pascoe, 1873

Representatives of this genus have thus far been found in the Society Islands on Tahiti and Raiatea only. The femora are grooved for the reception of the tibiae; the mesosternal receptacle is deep and cavernous, and terminates between the mesocoxae; the sutures between the ventrites are all free and distinct; the scutellum is visible. Since the writing of "Review of the Genus Orochlesis" (Rhynchophora of southeastern Polynesia publication 1, B. P. Bishop Mus., Occ. Papers, vol. 12, no. 1, 1936), I have received additional specimens from the British Museum, kindly sent to me by Sir Guy A. K. Marshall; these were collected by Miss L. E. Cheesman and Mr. C. L. Collenette of the St. George Expedition in 1925. These specimens provide additional data, which are incorporated in the following discussion.

I have found the species of this genus to be exceedingly variable in color pattern and often with few structural differences. The shape of the pronotal scales is evidently a relatively constant char-

acter in the two Society Island species and affords the easiest means of separating them in a synoptic table. The two species are obviously closely related, and the color pattern of one sometimes agrees closely with that of the other.

Key to Species

Scales on the disk of the pronotum before the scutellum rounded, about as broad as long, as in fig. 1, *a*, Raiatea.....**O. gibbera**
 Scales on the disk of the pronotum before the scutellum elongate-oval, distinctly longer than broad, as in fig. 1, *b*, Tahiti.....**O. lunata**

45. *Orochlesis gibbera* Zimmerman (fig. 1, *a*).

Orochlesis gibbera Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. 12, no. 1, p. 7, figs. 1, *b*, 1; 2, *b*; 3, *e*, 1936.

I have two additional specimens of this species before me that were collected by Miss Cheesman in the northeastern part of Raiatea, May 20, 1925, at sea level. One of the specimens has the color pattern practically the same as that of the holotype, but the pale areas at the middle of the elytra are irregular and not distinct triangles; elsewhere the scaling is somewhat darker. This individual is almost twice the bulk of the holotype, and the measurements should be corrected to read: length, 2.5-5.5 mm; breadth, 2-3 mm. The second specimen is intermediate in size, and the pale, median patches of the elytra are indistinct. With additional data, I find that the elytra of this species are not so abruptly gibbous as my drawing with the original description indicates.

46. *Orochlesis lunata* Zimmerman (fig. 1, *b*).

Orochlesis lunata Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. 12, no. 1, figs. 1, *a*; 2, *a*; 3, *f*, 1936.

I have examined eight specimens of this species and have found no two that have the color pattern identical. A specimen taken by Miss Cheesman in Tautira Valley, July 7, 1925, has the entire mid-section of the elytra black. A specimen taken by Mr. Collenette at light in Fautaua Valley, elevation 2500 feet, March 13, 1925, has the color pattern almost identical with that of a specimen of *Orochlesis gibbera* taken by Miss Cheesman in Raiatea. It has a small but conspicuous and dense patch of white scales on the fourth interval

preceded by a black patch and there is a large, irregular, black patch on the declivity. Another specimen has the black patches obscured and the elytra are rather concolorous, but the sublunate mark can be distinguished under magnification.

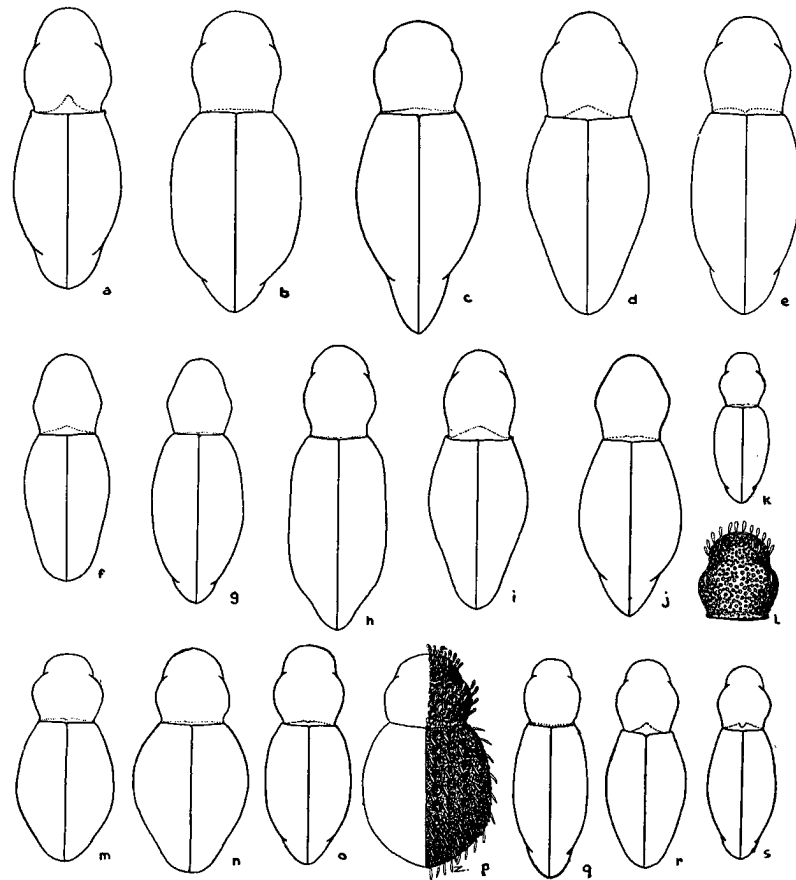


FIGURE 4.—Diagrams of new *Microcryptorhynchus*: a, *M. discretus*; b, *M. planatus*; c, *M. caudatus*; d, *M. pervisus*; e, *M. orofenae*; f, *M. fraudator*; g, *M. fosbergi*; h, *M. irroratus*; i, *M. ambiguus*; j, *M. fulgidus*; k, *M. minutus*; l, pronotum of *M. brevis*; m, *M. rubellus*; n, *M. pallidus*; o, *M. confinis*; p, *M. vagus*; q, *M. exilis*; r, *M. modicus*; s, *M. freycinetiae*. All drawn to the same scale.