REVIEW OF THE GENUS OROCHLESIS
(COLEOPTERA, CURCULIONIDAE)

By

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INTRODUCTION

As no comprehensive study has been made of *Orochlesis* I have thought it wise to review the genus as a whole in the belief that such reviews are of value to students interested in geographic distribution. This study is based mainly on collections in Bernice P. Bishop Museum where, except as otherwise indicated, the types of new species are stored.

I am indebted to Mr. Edward P. Van Duzee of the California Academy of Sciences for the loan of material and the privilege of describing two new species from the Koebele collection, and to Dr. Edwin C. Van Dyke of the University of California, and Sir Guy A. K. Marshall of the British Museum (Natural History) for many favors.

Subfamily CRYPTORRHYNCHINAE

Genus **OROCHLESIS** Pascoe

Orochlesis Pascoe: Linn. Soc. London, Jour., Zool., vol 11, p. 194, 1873.

Acacallis Pascoe: Ann. Mag. Nat. Hist., ser. 5, vol. 12, p. 96, 1883.

Queenslandica Lea: Linn. Soc. N. S. Wales, Proc., vol. 28, p. 664, 1903.

The genus *Orochlesis* is allied to *Perissops* Pascoe, from which it differs mainly by having the femora grooved for the reception of the tibia, and the two basal segments of the venter much more elongate. The antennae are inserted slightly behind the middle of the rostrum, the scape hardly reaches the eyes, the first two segments elongate, the following five segments shorter and successively more

[1] Rhynchophora of southeastern Polynesia. (The first of a series of papers by several authors on taxonomy, habitat, ecology, distribution, and relationship of the Rhynchophora of Polynesian islands southeast of Hawaii and Samoa. The serial numbers and format of the papers are designed to facilitate grouping into volumes—Editor).

[2] Mangarevan Expedition Publication 3.

transverse, club as long or longer than the preceding five segments together; eyes coarsely faceted and well separated, the distance between them being equal to more than half the width of the rostrum at the antennae; prothorax transverse, constricted anteriorly, occular lobes absent; elytra convex, not much broader than the prothorax and rather abruptly elevated above it; wings fully developed for flight; pectoral channel terminating between the mesacoxae, the mesosternal receptacle cavernous.

Genotype: *Orochlesis annularis* Pascoe. Designated by Lea (6[3], p. 327).

There is evidently no Greek equivalent for chlesis (χλησις). I believe Pascoe made an error in transliteration. The original spelling of the term probably was meant to be *Orochresis* (ορο, mountain, and χρησις, use).

Pascoe founded his genus *Acacallis* on the species that is now known as *Orochlesis personata* (Pascoe). (See p. 14.) He described the mesosternal receptacle as open and the base of the prothorax as truncate. However, the mesosternal receptacle is decidedly cavernous, and the base of the prothorax distinctly sinuate. The species has no characters, as Lea noted upon an examination of a cotype, to warrant its generic separation from *Orochlesis*. Lea was evidently misled by Pascoe's figures of *O. annularis* Pascoe, and in 1903 proposed the generic name *Queenslandica* for the reception of two new species from Queensland, Australia. He later received a determined specimen of *O. annularis* Pascoe, and in 1913 sunk *Queenslandica* Lea as a synonym of *Orochlesis* Pascoe. Pascoe's description of *Acacallis* was so obscure and misleading that Lea did not realize that he was assigning Pascoe's genotype to a new genus when he described *Acacallis personata* Pascoe as *Queenslandica munda* Lea.

The genus has a wide geographical distribution. It is now known from Japan, Formosa, the Philippines, Malay Peninsula (Penang Island), Celebes, Moluccas, islands off the coast of New Guinea, northeastern Australia, Fiji, Samoa, and the Society Islands. Numerous species will undoubtedly be found on the mainland of New Guinea, New Caledonia, New Hebrides, and the many intervening islands when more collecting is done. The genus is not typical of the fauna of southeastern Polynesia. I believe it was introduced long after the major development of that fauna and is of

[3] Numbers in parentheses refer to Bibliography, p. 19.

Papuan origin. Its fully developed, strong wings have helped to spread it.

Nothing seems to be known about the early stages and habits of these rather uncommon insects. All the specimens I took in the Society Islands were definitely connected with dead branches and fern fronds (except one specimen that was attracted to light). The larvae undoubtedly live in dead twigs, branches, and the fronds of ferns.

I list here the 16 species known to me, 6 of them described as new. I have drawn short synopses from the original descriptions of those species which I have not seen. The species are listed according to their geographical distribution from east to west.

Check List of Species of Orochlesis Pascoe

1. Orochlesis lunata, new species. Tahiti, Society Islands.
2. Orochlesis gibbera, new species. Raiatea, Society Islands.
3. Orochlesis nigrofasciata Marshall. Upolu and Savaii, Samoa.
4. Orochlesis vitticollis, new species. Vitilevu, Fiji.
5. Orochlesis bryani, new species. Vitilevu, Fiji.
6. Orochlesis nigra, new species. Fiji.
7. Orochlesis posticalis (Lea). Queensland, Australia.
   Queenslandica posticalis Lea.
8. Orochlesis delta Lea. Queensland, Australia.
9. Orochlesis personata (Pascoe). Queensland, Australia.
   Acacallis personata Pascoe.
   Queenslandica munda Lea.
10. Orochlesis cornuta, new species. Queensland, Australia.
11. Orochlesis flesina Pascoe. Aru Island.
12. Orochlesis maculosa Pascoe. Salwatty Island.
13. Orochlesis solea Pascoe. Batchian Island, Moluccas.
14. Orochlesis annularis Pascoe. Yule Island, New Guinea; Dorey and Batchian Islands, Moluccas; "Celebes"; Luzon Island, Philippines; Penang Island, Malay Peninsula.
15. Orochlesis anteplagiata Heller. Takao, Formosa.
16. Orochlesis takaosanus Kono. Honshu, Japan.

1. **Orochlesis lunata,** new species (figs. 1, *a*, *c*; 2, *a*; 3, *f*).

Derm reddish-brown to black, shiny, densely clothed above with whitish or pale brown scaling variegated with brown to black scales; scales on the head pale brown to dark brown with those on the vertex paler; the pronotum with an indefinite, broad, median, pale stripe limited laterally by bands of darker scales; the elytra with a pale stripe at the base of interval 2; a broad, well defined, sub-lunate patch of dark brown to black scales behind the middle extending laterally to, and partially including, the fifth intervals; the scales on the disk usually darker from this dark patch to the base of the elytra; the scaling uniformly pale below.

Head with large, coarse, close-set punctures on the forehead between the eyes, the punctuation continuing on the base of the rostrum, gradually diminishing in size to the antennae. *Rostrum* flattened dorso-ventrally, densely and coarsely punctate at the base and laterally to the antennae; base with numerous, pale, erect setae that extend upon the forehead and partially surround the dorsal margins of the eyes; bare, and with small scattered punctures from the antennae distally. *Antennae* with funicular segments 1 and 2 elongate and about equal in length, 2 more slender than 1, segments 3 to 7 transverse and successively wider; club hardly longer than the preceding five segments together. *Prothorax* not quite twice as wide as long (5:2.75), slightly narrowing posteriorly, abruptly narrowing to the well defined, very strong apical constriction; basal margin bisinuate; dorsum with rather large, close-set punctures bearing large, oval scales which are much larger than those on the elytra and formed into two feeble fascicles at the apex. *Scutellum* glabrous. *Elytra* two thirds as wide as long, over three times as long as the prothorax; base bisinuate, the humeri rather abruptly rounded, the elytra thence subparallel to the apical third where they are broadly rounded to the jointly, obtusely rounded apices; striae shallow, with well separated punctures often covered by the scaling on the sides and apical third, especially on fresh unrubbed specimens, each puncture bears a prostrate seta; the intervals broad, flat, each bearing a row of erect, conspicuous setae; the posterior calli well developed; striae 8, 9 and 10 deeper than the others; the dorsal outline not continuous with that of the thorax, but rising rather rapidly to about one third from the base, then gently rounded to the apex. *Legs* rather densely covered with pale oval scales and setae; the femora not toothed. *Sternum* with the metasternum at its narrowest point between the mid and hind coxae about as long as a mid coxa, rather closely punctate, its hind margin deeply and broadly emarginate; the mesosternal receptacle extending much below the level of the metasternum. *Ventrites* 1 and 2 sparsely punctate, 3 and 4 hardly punctate; Ventrite 1 broadly and shallowly emarginate at middle; 2 two thirds as long as 1 and about as long as 3 and 4 together; 5 about as long as 2, its apical half definitely raised and coarsely punctate. Length, 3.5-4.8 mm; breadth, 2-2.5 mm.

Male with rostrum very coarsely punctate at the base, with the first and second ventrites broadly and shallowly impressed. *Female* with the base of the rostrum less coarsely punctate and the first two ventrites slightly convex.

Tahiti, Society Islands. Described from five specimens as follows: one female of the Pacific Entomological Survey, collected by A. M. Adamson, six kilometers from the sea in the district of Faa, November 7, 1928, "by beating on *Inocarpus edulis*" (I doubt that *Inocarpus edulis* is a usual host for the species); two females and one male collected by me at altitudes between 3,500 and 4,500 feet on Mt. Aorai Trail, September 13, 1934, while beating ferns (*Blechnum*), and another female, a fresh, unabraded specimen, collected by me at Taohiri, Mt. Aorai Trail, September 12, 1934, elevation about 3,500 feet, where it flew to the light of an electric torch in my tent; Holotype.

The conspicuous, sub-lunate, dark mark on the elytra readily distinguishes this species from all others described. The shape of the mark, however, may be somewhat altered by abrasion of the scales in old and worn specimens. In one specimen it is almost obliterated, and there is a subquadrate patch of whitish scales before the middle of each elytron. The setae on the elytra are much more erect and conspicuous than those of any other species from Oceania.

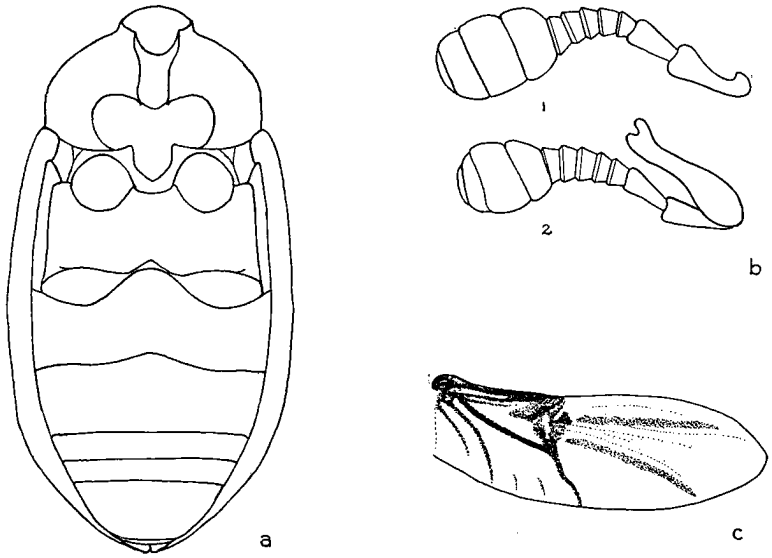

FIGURE 1.—Features of *Orochlesis*: *a*, under side of *O. lunata*; *b*, antennae of (1) *O. gibbera*, (2) *O. cornuta*; *c*, wing of *O. lunata* (part of the jugal and axillary areas torn off during dissection).

Professor E. C. Van Dyke has informed me that other specimens of this species collected by the St. George Expedition are in the British Museum.

2. **Orochlesis gibbera**, new species (figs. 1, *b*, (1); 2, *b*; 3, *e*).

Derm shiny, reddish-brown, densely clothed above with brownish scaling variegated with blackish and whitish scales; scales on the head pale brown, with a broad, open V of black scales on the forehead; pronotum with a pale median stripe that extends each side of the median line, at the base, to about the center of the second elytral interval but rapidly narrowing anteriorly, an indefinite pale spot before elytral intervals 4 and 5, a few pale scales on the posterior angles; elytra with a small patch of whitish scales at the base of the second interval, an outstanding triangle of white scales extending from intervals 3 to 6 inclusive at one third from the base; the base of the triangle

towards the base of the elytra, its apex on interval 4, an irregular patch of black scales just posterior to the middle touching interval 1 and extending across intervals 2, 3, and 4, interval 5 with a patch of whitish scales on the posterior callus.

Head with rather large, close-set punctures, the eyes prominent, with their inner margins much elevated above the head. *Rostrum* distinctly flattened dorso-ventrally, narrowed from the base to the antennae, thence parallel-sided, coarsely punctured at the base and laterally to the antennae, with numerous, pale, erect setae that extend upon the forehead and partially surround the dorsal margins of the eyes, bare and with minute scattered punctures from the antennae distally. *Antennae* with the first funicular segment slightly longer and more massive than 2, much wider at the apex than 2, about as wide as 7; club almost equal in length to the preceding six segments together. *Prothorax* twice as wide as long, very slightly narrowing posteriorly, abruptly narrowing to the well defined apical constriction, the base bisinuate, the apex with two feeble fascicles; dorsum with rather large punctures, larger on the sides than the disk, each puncture bearing a large, very broad scale or a squamiform seta, the punctuation not completely concealed by the scales which are much larger than those of the elytra. *Scutellum* glabrous. *Elytra* with the humeri gently rounded and thence rather evenly arcuate to the jointly, obtusely rounded apices, the base shallowly bisinuate; the striae shallow, with rather large, well separated punctures which are not covered by the scaling, each puncture bears a prostrate seta; the intervals flat, each with a row of inclined setae; striae 8, 9, and 10 much deeper than the others; dorsum gibbous in outline, rising rather abruptly to about one fourth from the base and thence gently sloping to between the posterior calli where the inclination becomes slightly more precipitous to the apex. *Legs* rather densely covered with pale, oval scales and rather fine, white sub-erect setae; femora not toothed. *Sternum* with broad and narrow pale scales; the metasternum at its narrowest point between the mid and hind coxae more than two thirds as long as a mid coxa, its posterior margin broadly concave and with a small median notch; the mesosternal receptacle extending to a lower level than that of the metasternum. *Venter* with the posterior margin of ventrite 1 gradually sloping posteriorly from the middle, making the entire margin shallowly emarginate from the sides to the middle, with scattered oval scales that are most numerous at the sides, rather coarsely punctate, each puncture bearing a pale seta; ventrite 2 shorter than 1, more densely clothed with pale oval scales, slightly longer than 3 and 4 together; ventrites 3 and 4 almost impunctate, with a few setae and oval scales condensed at the sides, otherwise scattered; ventrite 5 with its apical half slightly raised, rather densely and coarsely punctate, with pale, slender, erect setae and a few pale scales. Length, 3.5 mm; breadth, 2 mm.

Raiatea, Society Islands. The holotype is a female in excellent condition collected by me at an elevation of 1,500 feet on Temehani Plateau while beating a *Weinmania* bush, October 5, 1934. I captured a second female at 1,400 feet in the same locality and date while beating a species of *Dryopteris*. It is an old, much abraded specimen with hardly a scale left on its body. I believe the holotype is a freshly emerged specimen. The old specimen differs from the

holotype in being shiny black, suggesting that the pigmentation of the derm becomes darker with age.

This species is distinguished from all others by its hunchbacked elytra and the conspicuous pale triangle and black patch on each elytron.

3. **Orochlesis nigrofasciata** Marshall.

Orochlesis nigrofasciata Marshall: Hawaiian Ent. Soc., Proc., vol. 4, p. 593, 1921.

Closely allied to *O. solea* Pascoe. The scaling above mainly pale brown; pronotum with an indefinite, whitish, median stripe, a small patch of blackish scales on each side of it at the base; elytra with an oblong patch of white scales on interval 4 one third from the base, a narrow, blackish band from near the suture at the top of the declivity to stria 7 a little before the middle; the metasternum between the mid and hind coxae as long as a mid coxa. Femora not toothed. Length, 3.2 mm; breadth, 1.8 mm.

Upolu and Savaii, Samoa.

FIJIAN SPECIES

The following synoptic table sums up some outstanding characters easily seen on the three Fijian species. The species are very distinct.

1. Apical constriction of the prothorax strongly marked; pronotum with a pale median vitta; elytra with an outstanding subquadrangular, ochraceous spot ..... **O. vitticollis**
   Apical constriction of the prothorax not strongly marked 2
2. Scaling above predominantly pale; elytra with a large, pale patch; mesosternal receptacle slightly produced below the level of the metasternum ..... **O. bryani**
   Scaling above predominantly black; elytra with small, pale spots; mesosternal receptacle on the same plane as the metasternum ..... **O. nigra**

4. **Orochlesis vitticollis,** new species (figs. 2, *d*; 3, *c*).

Derm shiny, dark reddish-brown, densely clothed above with yellowish-brown scaling with paler and darker patches of scales; the head with broad scales, some darker ones on the vertex; the pronotum with a narrow, rather indefinite elongate triangle of broad white scales before the scutellum, the triangle giving way to a narrow vitta of pale ochraceous scales that extends to the apex, the sides with irregular patches of ochraceous scales; elytra with an outstanding, subquadrangular patch of ochraceous scales just before the middle that extends across intervals 3, 4 and 5, a small patch of black scales posterior to this mainly on interval 3, but including intervals 2 and 4 at least in part; the scaling on the legs and below paler.

Head above the eyes shallowly and confluently punctate, coarsely and closely punctate between the eyes. *Rostrum* flattened dorso-ventrally; narrowed from the base to the antennae, and thence sub-parallel-sided to the apex; coarsely and densely punctate at the base and laterally to the antennae, sparsely

and finely punctate from the antennae apically, rather densely clothed at the base with prostrate, oval scales and sub-erect, squamiform setae. *Antennae* with the first segment of the funicle much heavier and somewhat longer than 2, nearly as broad at the apex as segment 7; segments 3 to 7 transverse and successively wider; club equal in length to the preceding five segments plus one half of segment 2. *Prothorax* not quite two thirds as long as wide (2.00:3.25), slightly narrowing behind, rapidly narrowing to the well marked apical constriction, base slightly bisinuate, dorsum with the round, well separated punctures normally concealed by the scales which are much larger than those of the elytra, and tend to form two feeble fascicles at the apex.

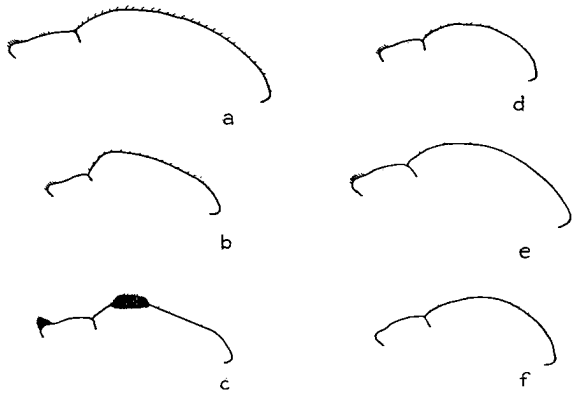

FIGURE 2.—Dorsal outlines of new species: *a, Orochlesis lunata*; *b, O. gibbera*; *c, O. cornuta*; *d, O. vitticollis*; *e, O. bryani*; *f, O. nigra.*

Scutellum transverse, glabrous. *Elytra* with the humeri not very strongly pronounced, the sides sub-parallel to about the middle and thence evenly rounded to the apices; the large, separated punctures of the striae generally covered by the scaling except for a series of deeper and coarser ones at the base of each stria, each puncture with a prostrate, rather broad, squamiform seta; striae 8, 9, and 10 deeper than the others; the intervals each with a row of sub-erect setae that are not easily discernable; the dorsal outline not continuous with that of the prothorax but rising rather rapidly to about one fourth from the base, thence gently rounded to the apex. *Legs* with no tooth on the femora. *Sternum* rather densely punctate; the metasternum at its narrowest part between the mid and hind coxae more than two thirds the length of a mid coxa, its posterior margin broadly emarginate; the mesosternal receptacle extending to a lower level than that of the metasternum. *Venter* with the first segment coarsely punctate at the base, otherwise sparsely punctate, shallowly impressed in the middle and without any definite median emargination on the posterior margin; ventrite 2 finely and sparsely punctate, as long as 3 and 4 together, three fourths as long as 1; ventrites 3 and 4 hardly punctate, with a small patch of scales at the sides and a few scattered, mostly rounded ones; ventrite 5 with scattered, rounded scales and erect setae, with about the apical half raised and coarsely punctate. Length, 3 mm; breadth, 1.5 mm.

Colo-i-Suva, Vitilevu, Fiji. Holotype, a male collected by E. H. Bryan, Jr., June 24, 1924.

The vitta on the pronotum, the ochraceous spots on the elytra, and the rather slender form of this small species will distinguish it from the other described species.

5. **Orochlesis bryani**, new species (figs. 2, *e*; 3, *b*).

Derm shiny, piceous, antennae and tarsi paler, densely clothed above with rather pale yellow scaling with patches of dark and paler scales; the pronotum with an indefinite patch of dark scales at the base on either side of the median line, and a similar, though smaller, patch near the apex; elytra with a large, vaguely semi-cordate, pale area about the middle extending laterally over intervals 2 to 7, its apex towards the base of the elytra on about interval 7; an indefinite dark patch of scales touching the posterior margin of this pale patch, partially on interval 1 and extending across intervals 2 and 3 to 4; the scaling below pale.

Head rather densely punctured, the punctures large, coarse and close-set between the eyes, densely clothed with rounded scales that conceal the derm. *Rostrum* rather strongly compressed dorso-ventrally, strongly narrowed from base to antennae and thence slightly widened to the apex, densely and coarsely punctate at the base and laterally to the antennae, sparsely and finely punctured from the antennae apically. *Antennae* with funicular segments 1 and 2 elongate and equal in length; club equal in length to the preceding five segments plus half of segment 2. *Prothorax* not quite twice as wide as long (4.5 : 2.5), rather broadly rounded on the sides, the apical constriction not very well marked; the basal margin rather strongly bisinuate; dorsum with rather large close-set punctures normally obscured by the scales which are larger than those of the elytra, and formed into two feeble, apical fascicles. *Scutellum* subquadrate, glabrous. *Elytra* about five sevenths as wide as long (5 : 7 +), sub-parallel to about the middle and thence evenly rounded to the apices, base strongly bisinuate; the striae on the disk marked only by large, well separated punctures normally covered by the scaling, striae 6 to 10 successively deeper; the intervals broad, each with a row of recumbent, squamiform setae; the dorsal outline not continuous with that of the thorax, but rising rather rapidly to about one fourth from the base, and then evenly rounded to the apex. *Legs* with no tooth on the femora. *Sternum* with the narrowest part of the metasternum between the mid and hind coxae about three fifths as long as a mid coxa, and densely clothed with rounded scales, its posterior margin shallowly concave and with a small median fovea; the mesosternal receptacle hardly projecting below the level of the metasternum. *Venter* with rounded scales and scattered squamiform setae; ventrite 1 distinctly, though sparsely, punctate, its apical margin not distinctly emarginate at the middle; ventrite 2 five sevenths as long as 1 and as long as 3 and 4 together, sparsely and finely punctate; ventrite 5 with about the apical half raised and coarsely punctate. Length, 4 mm; breadth, 2 mm.

Colo-i-Suva, Vitilevu, Fiji. Holotype, a female collected by E. H. Bryan, Jr.

The more uniform coloring of the scaling, and the large pale spot on each elytron will readily distinguish this species from its Fijian congeners. It most closely approximates *O. nigra* Zimmerman. Although the mesosternal receptacle is produced below the level of the metasternum, it is less produced than that of any species described in this paper except *O. takaosanus* Kono and *O. nigra* Zimmerman.

I take pleasure in naming this species after my good friend, Mr. E. H. Bryan, Jr., Curator of Collections, Bishop Museum, in recognition of his work in Fiji and for the many favors he has extended to me.

6. **Orochlesis nigra**, new species (figs. 2, *f*; 3, *a*).

Derm shiny, dark reddish-black to black, antennae and tarsi paler; the scaling above not entirely concealing the derm, dark brown to black with small patches of pale scales; pronotum with large, elongate, widely separated groups of pale scales; elytra with oval, velvety-black scales, a dense patch of more elongate, pale brown scales on interval 4 two fifths from the base, the posterior calus covered by a similar patch; an indefinite area of pale brown scales at the apex and a scattering of small groups of pale scales complete the markings of the elytra; scaling below white.

Head densely and coarsely punctate, especially between the eyes and on the forehead, each puncture bearing a prostrate seta. *Rostrum* flattened dorsoventrally, narrowed from the base to the antennae and thence slightly widened to the apex; coarsely punctate medially to one eighth from the base, thence sparsely and minutely punctate to the apex; a lateral sulcus from the antennae to the base containing a row of erect, pale setae that extends upon the head to partially surround the eyes. *Antennae* with the scape rather strongly clavate, about as long as the first five funicular segments together; funicle with the first segment longer and heavier than 2; segments 3 to 7 transverse and successively wider; club equal in length to the preceding five segments and about one fourth of segment 2 inclusive. *Prothorax* two thirds as long as wide, rounded on the sides, the apical constriction not strongly marked, base strongly bisinuate, dorsum with rather widely separated punctures not concealed by the scales they bear. *Scutellum* oval, glabrous. *Elytra* about three times as long as the prothorax, slightly more than four fifths as wide as long, evenly arcuate from base to apex in both lateral and dorsal outlines; punctures of the striae very large and foveaform within the basal third, much smaller behind, not concealed by the scaling, each puncture bears a small, fine seta; striae 8, 9, and 10 deeper than the others; intervals flat, each with a row of black setae that are not easily discernable. *Legs* with no tooth on the femora. *Sternum* with the metasternum with large, widely separated punctures except between the mid and hind coxae where there are a group of sub-confluent punctures which are concealed by the oval white scales they bear, the distance across the narrowest part of the metasternum between the mid and hind coxae two thirds the length of a mid coxa, the posterior margin shallowly concave and with a median fovea; the mesosternal receptacle on the same plane as the metasternum. *Venter* sparsely and shallowly punctate, each puncture bearing a white seta or an occasional white, oval scale; ventrites 1 and 2 convex, ventrite 1 longer

than 2 and as long as 3, 4, and 5 together, its apical margin broadly and shallowly emarginate from the posterior angles to the middle; ventrite 5 with its apical half coarsely punctate. Length, 3.5 mm; breadth, 1.8 mm.

Fiji. Holotype (no. 4117) in the California Academy of Sciences, a female from the Koebele collection.

This species is most closely related to *O. bryani,* Zimmerman, from which it can easily be distinguished by its black scaling. Like *O. takaosanus* Kono, its mesosternal receptacle is not produced below the level of the metasternum.

AUSTRALIAN SPECIES

1. Pronotum without well developed fascicles.....2
   Pronotum with conspicuous and well developed fascicles.....3
2. Elytra with whitish scales, a large sub-circular patch of chocolate-brown scales on the declivity.....**O. posticalis**
   Scaling of the elytra mainly pale brown and with a sub-apical, triangular patch of blackish scales.....**O. delta**
3. Scaling predominantly pale; pronotum with six fascicles, without a large, median, dark area; elytra without fascicles.....**O. personata**
   Scaling predominantly brown; pronotum with a large, median, dark area and two conspicuous black fascicles at the apex; elytra with an outstanding black fascicle on interval 2.....**O. cornuta**

7. **Orochlesis posticalis** (Lea).

Queenslandica posticalis Lea: Linn. Soc. N. S. Wales, Proc., vol. 28, p. 665, 1903.

Very closely allied to *O. annularis* Pascoe and may possibly be synonymous with it. It differs from *O. annularis* mainly by having the sub-apical spot of the elytra not margined by white scales. Elytra, scarcely wider than the prothorax, two and one half times as long, with whitish scales, a large sub-circular patch of chocolate-brown scales on the declivity; the intervals feebly convex. Length, 5.25 mm; breadth, 2.5 mm.

Lizard Island (east coast of Cape York Peninsula), Queensland, Australia.

8. **Orochlesis delta** Lea.

Orochlesis delta Lea: Roy. Soc. South Australia, Trans., vol. 37, p. 328, 1913.

Allied to *O. posticalis* (Lea). The scaling above mainly pale brown; elytra scarcely wider than the prothorax, parallel-sided to near the widely rounded apex; elytra with a velvety, sub-apical, triangular patch of blackish scales, a few scattered granules at the base of the first interval; scaling below mainly white; femora not toothed. Length, 5.5 mm.

Cape York, Queensland, Australia.

9. **Orochlesis personata** (Pascoe).

Acacallis personata Pascoe: Ann. Mag. Nat. History, ser. 5, vol. 12, pp. 96-97, 1883.

Queenslandica munda Lea: Linn. Soc. N. S. Wales, Proc., vol. 28, p. 666, 1903.

The scaling above mainly soft creamy-white, but darker on the base of the prothorax and around a large pale median area on the elytra where dark scales usually form a large V that commences on each humerus and terminates at the suture slightly before the middle; the scales on the thorax much larger than those of the elytra and formed into feeble fascicles, four across the middle and two at the apex. Length, 4-5 mm; breadth, about 2.35 mm.

Cape York, Queensland, Australia. The rather uniform color of the scaling and the distinct fascicles on the prothorax distinguish this species.

I have two specimens which were sent to me by the Queensland Museum labeled as *Orochlesis personata*. They do not agree with Lea's original description, and I have not included a description of them here, as they may not be accurately determined. They have the scaling predominantly buff or fawn-colored instead of "creamy white"; there are four fascicles on the prothorax instead of six; the scales on the prothorax are mainly concave instead of flat; there is no dark V on the elytra, but there is an area of pale scales resembling an open figure 8 outlined by brown scales; and there is a distinct tooth near the base of the femora.

10. **Orochlesis cornuta**, new species (figs. 1, *b*; 2, *c*; 3, *d*).

Derm shiny, dark reddish-brown to black, densely clothed above with white, brown, and black scales; head with velvety black scales, a pale, yellow-brown vitta between the eyes, a row of white scales around the eyes; pronotum with a large, oval, transverse, median, posterior area of velvety black scales that continues as a broad vitta from about the middle to the apex where it terminates in two rather large conical fascicles of long, narrow, erect, black scales, the remainder of the pronotum variegated with whitish and fawn-colored scales; elytra variegated with whitish, yellowish and fawn-colored scales; an outstanding, elongate fascicle of long, slender, erect, black scales on the second interval within the basal third, a feeble fascicle of yellowish and fawn-colored oval scales anterior to this on the fourth interval; the posterior calus with a rather strong fascicle of yellowish, erect, elongate-oval scales; legs with the apex of the femora and bases of the tibia covered with fawn-colored scales, otherwise with white scaling; scaling below white.

Head densely punctate, punctures between the eyes elongate, the punctuation almost entirely concealed by the scaling. *Rostrum* with punctuation at the base continuous with that between the eyes; the punctures forming a rather

indefinite, lateral sulcus to the antennae, very sparsely and minutely punctate from behind the antennae apically, base with white and black, sub-erect, squamiform setae. *Antennae* with the first funicular segment heavier and slightly longer than the second; club somewhat longer than segments 3 to 7 inclusive which are transverse and successively wider. *Prothorax* less than twice as broad as long (4 : 2.5), base bisinuate, rounded on the sides and strongly narrowed to the well marked apical constriction; punctures round and well separated, each bearing a large rounded scale, the punctuation, except on the middle of the disk, concealed by the scaling. *Scutellum* rounded, glabrous. *Elytra* sub-parallel from base to behind the middle, thence broadly rounded to the apex, about one and one half times as long as wide (6.5 : 4.5), slightly more than two and one half times as long as the prothorax (6.5 : 2.5); punctures of the striae large and foveaform within the basal third in the first stria and successively nearer the base on the outer striae to the seventh stria, each puncture bears a seta, those of the foveaform punctures fine and those of the more apical punctures more squamiform, striae 8, 9, and 10 deeper than the others; intervals broad and flat, each bearing a row of sub-prostrate setae that are not easily discernable, those of the outer four intervals arising from polished, black tubercles that project above the scaling, the second interval expanded and somewhat elevated to form a callous-like base for the fascicle; the dorsal outline slanting rather abruptly upwards to reach its highest point between the fascicles on the second intervals, thence slanting back in a straight line to a point before the posterior calli from whence the outline is rounded to the apex. *Legs* with the femora untoothed. *Sternum* with the metasternum with large, oval, white scales, a large, transverse, median fovea on the anterior margin, posterior margin broadly emarginate, a short, median sulcus from the posterior margin anteriorly for about one fourth the length of the metasternum; the narrowest part between the mid and hind coxae equal to about five sevenths the length of a mid coxa; mesosternal receptacle extending below the level of the metasternum. *Venter* sparsely and minutely punctate, each puncture bearing a prostrate oval white scale or squamiform seta, ventrites 1 and 2 flattened across the middle, ventrite 1 as long as 3, 4, and 5 together, ventrite 2 two thirds as long as 1, ventrite 5 with its posterior half slightly raised and coarsely punctate. Length, 4 mm; breadth, 2 mm.

The sexes are rather difficult to distinguish. The rostrum of the male is shorter and heavier and the base slightly more coarsely punctured than that of the female. The first abdominal segment is very slightly impressed behind the middle in the male; in the female it is flat.

Queensland, Australia. Holotype, a female (no. 4118) in the California Academy of Sciences.

This striking species is perhaps most closely related to *O. personata* (Pascoe). The dark area on the pronotum, and the outstanding black fascicles separate it from all other described species. This species and *O. personata* (Pascoe) are the only species that have such well developed fascicles.

One of the three specimens on which this description is based was labeled "Fiji, Koebele, XI-9-1899". The other two were labeled

"Australia, Koebele". The specimen labeled "Fiji" was probably incorrectly marked after it was mounted and I have relabeled it. Although the exact locality of the Australian specimens is not given,

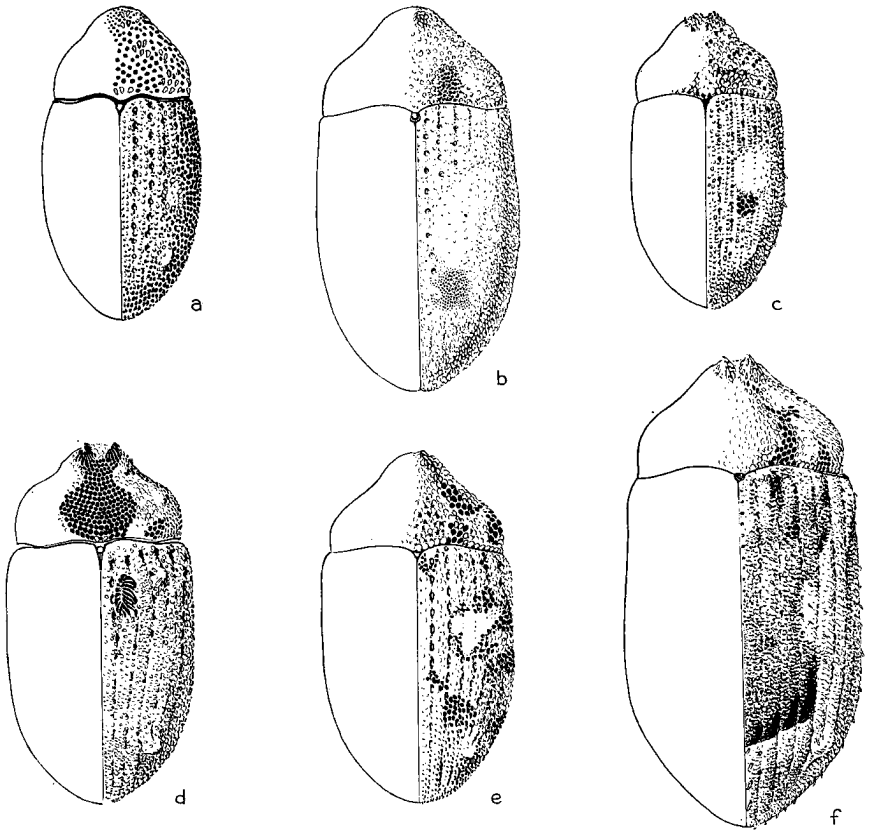

FIGURE 3.—New species of *Orochlesis*: *a, O. nigra*; *b, O. bryani*; *c, O. vitticollis*; *d, O. cornuta*; *e, O. gibbera*; *f, O. lunata*. (Camera lucida drawings by F. M. Abernathy.)

it may be assumed that they came from Queensland, probably from the vicinity of Cairns. Some other Coleoptera in the same box, including a specimen of *Orochlesis personata* (Pascoe), (?!), were labeled "Cairns, Q., Koebele". *O. cornuta* is not closely related to any known Fijian species.

SPECIES FROM PAPUA, MOLUCCAS, AND JAPAN

11. **Orochlesis flesina** Pascoe.

Orochlesis flesina Pascoe: Linn. Soc. London, Jour., Zool., vol. 11, p. 195, 1873.

Prothorax strongly, reticulately punctate in the middle, the scales towards the sides larger than those of the disk; elytra with large lateral areas on each elytron before the apex, and a common one before the middle sparsely marked with small spots. Length about 3.7 mm.

Aru Islands (south of Papua).

12. **Orochlesis maculosa** Pascoe.

Orochlesis maculosa Pascoe: Linn. Soc. London, Jour., Zool., vol. 12, p. 40, 1876.

Prothorax sub-conical, vaguely granulate; elytra oblong-cordate, intervals convex, punctures of the striae large and oval. Length, about 7 mm.

Salwatty Island (off the western tip of Papua). The cordiform elytra readily distinguish this species from all others.

13. **Orochlesis solea** Pascoe.

Orochlesis solea Pascoe: Linn. Soc. London, Jour., Zool., vol. 11, p. 195, 1873.

Prothorax with two patches of white scales near the apex, coarsely, reticulately punctate, each puncture bearing a large, oblong scale; each elytron with two patches of white scales. Length, about 4 mm.

Batchian Island, Moluccas. Marshall (7, p. 594) says that the femora bear a very small angular tooth, and that the metasternum between the coxae is shorter than a mid coxa.

14. **Orochlesis annularis** Pascoe.

Orochlesis annularis Pascoe: Linn. Soc. London, Jour., Zool., vol. 11, p. 194, pl. 8, figs. 2 and 2a, 1873.

Densely covered with grayish scales; elytra with a large, claret-brown patch of scales margined with white on the declivity. Length, 3.7-5.8 mm.

Yule Island, (off the coast of New Guinea on the east side of the new species are stored.
Gulf of Papua); Dorey and Batchian Islands in the Moluccas; "Celebes"; Luzon Island, Philippines; and Penang Island (Malacca Straits). This species has an unusually wide distribution.

Pascoe describes the apical spot as free from scales, but Lea (6, p. 327) says that it is really made up of closely packed scales that are rather difficult to see.

15. **Orochlesis anteplagiata** Heller.

Orochlesis anteplagiata Heller: Wiener Ent. Zeit., vol. 48, p. 104, 1934.

Resembles *O. annularis* Pascoe in form but smaller (according to Heller). Pronotum with a dark area that extends posteriorly from the middle of the disk to include about the median half of the basal margin; elytra with a sub-quadrate basal mark that is more or less continuous with the mark on the pronotum, and almost surrounded by a whitish line, which, however, does not reach the suture. Length, 3.8 mm; breadth, 2.2 mm.

Takao, Formosa.

16. **Orochlesis takaosanus** Kono.

Orochlesis takaosanus Kono: Insecta Matsumurana, vol. 6, no. 4, p. 178, table 6, fig. 8, 1932.

Allied to *O. anteplagiata* Heller. Densely clothed above with very large, rounded, imbricated scales that completely conceal the derm on the head, pronotum, and elytra, and form a large, dark, median basal area on the pronotum bounded by a whitish band; elytra with a narrow, sub-crescent-form band of white scales just before the middle that curves forward to the humeri, the area thus enclosed with the first, second, and part of the third intervals with black scales interspersed with scattered whitish scales, the outer intervals with brown scales, a common, transverse, black band of scales between the posterior cali, the posterior third of the elytra mainly clothed with pale scales elsewhere, from the posterior third to the sub-crescent-form white band the scaling is mainly pale brown flecked with small patches of black scales, interval 6 with a short vitta of black scales from the middle forward, interval 7 with a longer area of black scaling, interval 8 with the black scales extending to the anterior white band, the outer intervals with the scaling black from the middle to the base. Scaling below dense, mainly white; ventrites 3, 4 and 5 very densely clothed and with dirty-brown scales except for especially thick lateral patches of whitish scales.

Antennae with the first two funicular segments elongate and sub-equal, the following five segments transverse and successively wider; club longer than the preceding five segments together. Prothorax distinctly, but not very strongly, constricted anteriorly; pronotum with round, well separated punctures. Elytra with the striae marked by rather deep punctures; intervals flat, each bearing a single row of rather conspicuous, heavy, clavate, mainly black setae. Femora edentate. Mesosternal receptacle on the same plane as the metasternum. Length, 4 mm; breadth, 2.5 mm.

Mt. Takao, Honshu, Japan. This species is one of the few that have the mesosternal receptacle on the same level as the metasternum and not produced below it. The scaling, especially on the under surface, is more dense than any of the species I have examined. Kono says there are but six segments in the funicle. A specimen before me that otherwise agrees with his description and matches his illustration has normal antennae with seven distinct segments in the funicle.

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