

OROCHLESIS OF FIJI
(Coleoptera, Curculionidae)

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INTRODUCTION

Since the writing of "Review of the Genus *Orochlesis*" (Bernice P. Bishop Museum, Occ. Papers, vol. XII, no. 1, 1936), I have received additional material from the British Museum and from the collection of the Hawaiian Sugar Planters' Association. Four new species are included in this assemblage as well as new data on two of the three previously described Fijian species.

Fiji now has more described species of *Orochlesis* than any other one area. Australia has four species, and only four are known from the entire Malay-Papuan area. These data are not conclusive evidence as regards the geographical concentration of species, however, but probably indicate incompleteness in collecting.

I extend my thanks to Sir Guy A. K. Marshall and to Mr. C. E. Pemberton for their cooperation.

SUBFAMILY CRYPTORRHYNCHINAE

Genus *OROCHLESIS* Pascoe, 1873

Key to the Fijian Species

1. Mesosternal receptacle distinctly produced below the level of the metasternum 2
Mesosternal receptacle on the same plane as the metasternum or hardly produced, but not distinctly protuberant; scaling predominantly black or tessellated with small scattered patches of yellowish and brownish scales 6
2. Prothorax strongly incised before the apex as in fig. 1, *b*.....***O. angulata***
Prothorax not strongly incised before the apex as in fig. 1, *b*, but with a distinct, though gentle subapical constriction as in fig. 1, *a*..... 3
3. Elytra with a large, conspicuous patch of velvety-black scales at the shoulders as in fig. 1, *a*; the prothorax strongly rounded longitudinally in dorsal outline.....***O. bella***
Elytra without a black humeral patch, the prothorax not strongly rounded in dorsal outline..... 4

4. Prothorax with a pale median vitta, without a patch of dark brown or black scales before elytral interval three, the scales predominantly brownish orange; elytra with a median patch of ochraceous scales followed by a patch of black scales.....**O. vitticollis**
 Prothorax with a distinct patch of black scales before the third elytral interval 5
5. Elytra with a large, outstanding, median patch of white scales followed by a distinct patch of black scales that may form a separate patch on each elytron or coalesce and form a common band across the declivity**O. bryani**
 Elytra without a large, distinct median patch of pale scales, but tessellated with patches of brown, white or black scales.....**O. eluta**
6. Scales on the disk of the pronotum rounded or broadly oval, almost touching one another (fig. 1, *d*).....**O. nigra**
 Scales on the disk of the pronotum elongate-triangular, widely spaced and not touching one another, the derm distinctly visible between them (fig. 1, *c*).....**O. tessellata**

1. *Orochlesis angulata*, new species (fig. 1, *b*).

Derm reddish-brown to black, densely clothed above with fawn-colored scales variegated with brown and very dark brown scales; scales on the head yellowish-brown with a few paler ones between the eyes; pronotum with fawn-colored scales, with the middle of the disk darker; elytra with fawn-colored scaling variegated with yellowish-brown scales, with an outstanding, elongate patch of dark brown scales on the bases of intervals two and three outlined with paler brown scales, with an irregular oblique line of dark brown scales beginning at about the middle and running obliquely and posteriorly to the lateral margin of the elytra, the scaling immediately anterior to this oblique band conspicuously darker than the background of fawn-colored scales, the area taken as a whole forming a conspicuous, dark, oblique fascia on each elytron; scaling below pale yellowish-white.

Head reticulate, with rather large, sub-confluent punctures between the eyes; the derm normally concealed by the imbricated, oval scales; with a row of short setae around the inner margins of the eyes; the inter-ocular area hardly narrowed from the base of the rostrum to the top of the eyes. *Rostrum* with coarse punctures at the base only and there with oval, concave scales and scattered elongate oval setae, very shiny and with minute punctures from the antennae apically. *Antennae* with the scape about as long as the first three funicular segments; funicular segment one stouter and about as long as two, three distinctly longer than broad, the others successively more transverse; club about equal in length to the preceding six segments together. *Prothorax* twice as broad as long, rather expanded and evenly arcuate in the basal two thirds and then abruptly and almost squarely constricted, the constriction continuing rather narrowly across the dorsum, the disk gently convex and the sides behind the constriction shallowly impressed; the anterior margin distinctly raised above the disk and somewhat peaked in the middle; the punctures rather large and coarse, normally concealed by the scales they bear; the scales very large, several times the size of those of the elytra, broadly oval, concave, imbricated towards the sides but those on the middle of the disk distinctly separated and the derm visible between them; with a few scattered setae and an irregular line of setae across the middle of the disk and a feeble fascicle

on either side of the middle of the apex. *Elytra* three fourths as broad as long (3.5:4.5), three times as long as the prothorax (4.5:1.5), subparallel-sided in the basal two thirds and thence broadly rounded to the apex; the dorsal outline evenly and very strongly convex, almost hemispherical, highest at about the middle; the scaling dense, imbricated, almost entirely concealing the derm, the scales tending to form condensed patches or feeble fascicles on intervals 2-5 in the basal half; striae almost covered by the scaling, the punctures deeper and coarser in the basal half and each bearing an oval squamiform seta; the intervals broad and flat, each bearing a row of short, rather inconspicuous setae that arise from small, highly polished tubercles; posterior calli not strongly developed. *Sternum* with the posterior side walls of the mesosternal receptacle produced far below the level of the metasternum—to a plane below the mesocoxae, the sides concave. *Venter* with the first two ventrites with rounded punctures bearing oval and round scales, ventrites three and four with scattered scales except for a condensed patch at the sides; ventrite five with scattered punctures bearing some oval scales and slanting setae. Length, 5 mm; breadth, 2.3 mm.

Rewa, Fiji, 1905. One specimen, holotype, deposited in Bernice P. Bishop Museum, from the collection of the Hawaiian Sugar Planters' Association.

This is a most interesting and distinct species. It is not closely allied to any of the other species of the genus known to me. Its deeply incised prothorax will readily distinguish it from all of the other Fijian species. The interocular area is unusual in that it is hardly narrowed from the base of the rostrum to the top of the eyes.

2. *Orochlesis bella*, new species (fig. 1, a).

Derm shiny reddish-brown to black, scales on the head black except for a single line of fawn-colored scales between the eyes and an elongate patch of similarly colored scales on the crown; pronotum with brownish scales and with a conspicuous cross of pale fawn and white scales, the horizontal bar being bent obliquely backward from the vertical bar which extends from base to apex; *elytra* with an outstanding, large, black humeral patch of densely packed scales that extends laterally from the third to seventh intervals and longitudinally from near the base to beyond the basal third, this conspicuous patch is preceded by a narrow band of pale brown scales at the base, at its posterior extremity is a conspicuous triangular patch of closely packed white scales; between the black patch and the suture there is a scattering of white scales among the brown scales; elsewhere on the *elytra* the scaling is brown except for a few white and pale scales on the posterior calli; legs with fawn-colored and white scales; scaling below predominantly fawn colored except for the central areas of the metasternum and first and second ventrites which have white scales.

Head with the derm completely concealed by the scaling; the interocular area distinctly narrowed from the base of the rostrum to the top of the eyes. *Rostrum* coarsely punctured at the base and laterally to the antennae, elsewhere shining and with minute punctures. *Prothorax* somewhat less than

twice as broad as long (4:2.5), the sides broadly rounded to the rather strong subapical constriction that continues broadly across the disk, the disk in the basal two thirds rather strongly convex laterally and longitudinally; punctuation rather coarse and subconfluent, especially towards the sides, the punctures giving rise to elongate scales and prostrate, squamiform setae which only occasionally overlap one another, the derm, therefore, being visible between them, with a distinct fascicle of black, tubular setae on each side of the middle of the apex. *Elytra* almost five sevenths as broad as long (4.75:7), subparallel-sided to the declivity and thence broadly rounded to the apices; the dorsal outline rather evenly arcuate from base to apex but highest before the middle; the striae distinct throughout and not concealed by the scaling except beneath the very dense black and white patches of scales in the basal half; intervals broad and flat, each bearing a row of small, clavate setae that arise from minute, polished tubercles. *Legs* densely clothed with oval scales; the femora edentate. *Sternum* with the side walls of the mesosternal receptacle projecting to a plane below the level of the mesocoxae; metasternum depressed down the middle, its hind margin deeply emarginate. *Venter* with scattered oval scales and prostrate squamiform setae, the punctures on the first two ventrites separated by a distance about equal to their diameters. Length, 3.2 mm; breadth, 1.9 mm.

Savu Savu, Fiji. Holotype deposited in the British Museum. Described from one specimen collected by H. W. Simmonds, March 5, 1922.

This pretty species is distinguished by the outstanding velvety-black patch of scales at the base of each elytron followed by a sharply contrasted white patch, and by the cross of pale scales on the prothorax. The posterior walls of the mesosternal receptacle are strongly protuberant, and the basal two thirds of the prothorax is conspicuously convex. This species has the general body-form of *O. bryani* and its allies, but it is most distinct from them.

3. *Orochlesis vitticollis* Zimmerman.

Orochlesis vitticollis Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. XII, no. 1, pp. 9-11, figs. 2, *d*; 3, *c*, 1936.

This species is represented only by the unique holotype. It is distinctly related to *O. bryani*.

4. *Orochlesis bryani* Zimmerman.

Orochlesis bryani Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. XII, no. 1, pp. 11-12, figs. 2, *e*; 3, *b*, 1936.

This species was described from a single dirty specimen. There are 10 specimens in the material sent to me for study by Dr. Marshall. With clean specimens before me I have found that my illustration of this species may be somewhat misleading, although it is

fundamentally accurate. The pale area on the elytra should have been brought out in more contrast with the background so that it would have represented a conspicuous pure white patch of scales, and the dark area behind this should have been decidedly black.

The series before me displays much variation in color pattern. The large white patches on the elytra are much smaller on some specimens than on others. The black patches on the declivity are distinctly separated on some, while on others they have coalesced, forming a distinct, common, arcuate band across the declivity. There are intergradations between these extremes.

The following locality and seasonal data are new: Waiyevo, Tavuni, Suva, Rewa and Navua; April, June, October, and November.

5. *Orochlesis eluta*, new species (fig. 1, *e*).

Derm reddish-brown to black; densely clothed above with pale brown scales tessellated with white and very dark scales; head with pale brown scales, scaling of the pronotum pale brown with a dark patch of scales on each side of the middle at the base and a smaller, similarly colored patch on each side of the apex, between which is a triangle of white scales; scaling of the elytra mainly pale brown with scattered, very dark brown and white scales except for a variable patch of condensed white scales at about the basal third and a variable patch of condensed black or very dark brown scales just behind the middle, posterior calli with a few white scales; scales on the legs brown; scaling below very pale brown or whitish.

Head with the interocular area conspicuously narrowing from the base of the rostrum to the top of the eyes; coarsely punctured, the punctuation normally concealed by the scaling. *Rostrum* coarsely punctured at the base and laterally to the antennae, elsewhere shining and with fine punctures. *Antennae* with the scape about as long as the first four funicular segments together; funicular segment one heavier and somewhat longer than two, 3-7 successively more transverse; club longer than the preceding five segments together. *Prothorax* not twice as broad as long (4:2.5), broadly arcuate on the sides, the subapical constriction not sharply pronounced, continued shallowly across the dorsum; the punctures round and separated by less than their diameters, normally concealed by the scales they bear; the scales round or broadly oval, imbricated and normally concealing the derm. *Elytra* almost five sevenths as broad as long (4.5:7), subparallel-sided to beyond the middle and thence evenly arcuate to the apices; the dorsal outline highest at about the basal third and thence slanting to the apex; the striae with much larger punctures in the basal third than behind; the intervals flat, each bearing a row of short curved setae. *Legs* densely scaly; the femora edentate. *Sternum* with the hind walls of the mesosternum projecting below the level of the metasternum which is flat in the female and shallowly impressed in the male; the hind margin broadly emarginate. *Venter* with the first two ventrites convex in the female, flattened or slightly concave in the male and with shallow punctures except for a few deep ones near the base of ventrite one; ventrite five coarsely punctured. Length, 2.4 mm; breadth, 1.8 mm.

Fiji. Holotype, male, labeled "Fiji Is., Jan. 1906, F. Muir" from the collection of the Hawaiian Sugar Planters' Association, stored in Bernice P. Bishop Museum; allotype, female, collected by Dr. H. S. Evans, at Taveuni, March 28, 1924, deposited in the British Museum, and one female paratype labeled "Fiji, F. Muir" from the Giffard collection in the Bishop Museum.

This species belongs to the *bryani* complex and can be separated from that species by having no large, conspicuous white patches on the elytra. Superficially it resembles some of the paler specimens of *O. nigra*, but it can be distinguished from that species by its protuberant hind walls of the mesosternal receptacle. It can be distinguished from *O. tessellata* by its rounded, imbricated pronotal scales that normally almost entirely conceal the derm.

6. *Orochlesis nigra* Zimmerman (fig. 1, d).

Orochlesis nigra Zimmerman: B. P. Bishop Mus., Occ. Papers, vol. XII, no. 1, pp. 12-13, figs. 2, *f*; 3, *a*, 1936.

This species, described from a unique, is represented in the material now before me by four specimens. Additional locality and seasonal records are as follows: Rewa and Tamauva; December, January, and April.

There is a tendency for the elytra to be more tessellated with patches of yellowish-brown scales than I indicated in the original description. The structure of the mesosternal receptacle with its posterior side walls not extended below the level of the metasternum is characteristic of this species and *O. tessellata*.

7. *Orochlesis tessellata*, new species (fig. 1, c).

Derm reddish-brown to black, densely clothed above with pale brown scales tessellated with patches of white and almost black scales; head with a white patch on each side of the vertex, otherwise with pale brown scales; prothorax with a distinct patch of blackish scales before elytral interval three bordered laterally by an elongate patch of white scales before elytral interval four, with an irregular patch of blackish scales on each side of the middle in the apical half, elsewhere with pale brown scales; scaling on the elytra mainly tessellated with patches of white, pale brown and blackish scales but with a patch of condensed, very pale brown scales on interval four at the basal third; legs with white and pale brown scales; scaling below white.

Head with the coarse punctures normally concealed by the scaling; the interocular area distinctly narrowed from the base of the rostrum to the top of the eyes. *Rostrum* with coarse punctures at the base and laterally to the antennae; elsewhere shining and minutely punctured. *Prothorax* almost three fifths as long as broad (2.75:4.75), hardly narrowed from the base to the middle, thence rather evenly narrowed to the broadly rounded apex; the sub-

apical constriction not conspicuous and hardly continued across the dorsum, the punctures separated by less than their diameters, each almost concealed by the scale or squamiform seta it bears; the scales elongate, subtriangular, not imbricated, the reticulate derm easily seen between them. *Elytra* three fourths as broad as long, evenly arcuate from the base to the apical third and thence broadly rounded to the apices; dorsal outline almost evenly arcuate from base to apex, but highest before the middle; the striae with very large punctures at the base and becoming successively smaller behind; intervals flat, each bearing a single row of short, inclined, inconspicuous setae; scaling dense, the scales often distinctly overlapping. *Legs* with the femora edentate. *Sternum* with the hind walls of the mesosternal receptacle on the same plane as the metasternum or just perceptibly produced below it; metasternum flattened across the middle, with large, shallow punctures bearing white setae except for a patch of oval scales before the metacoxae. *Venter* with the middle areas of first two ventrites with scattered, fine, squamiform setae and with a few elongate-oval scales towards the sides. Length, 2.4-4 mm; breadth, 1.3-2.2 mm.

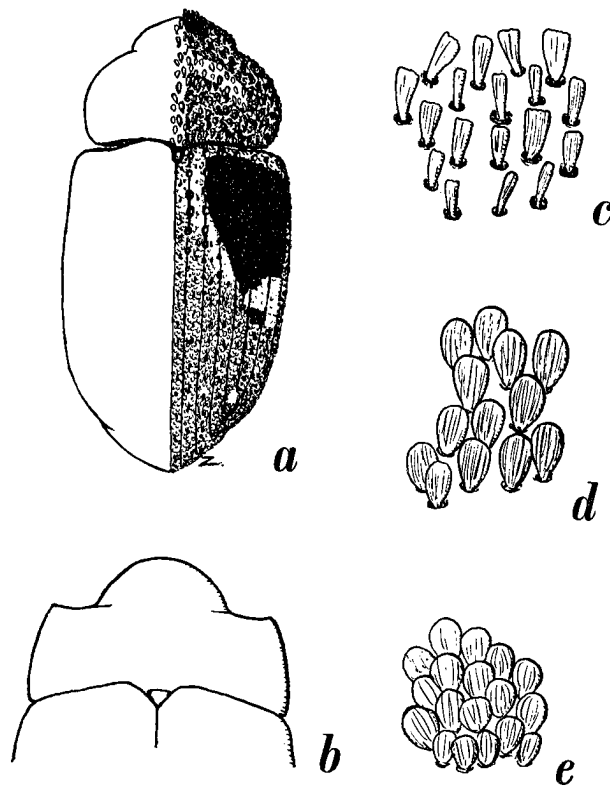


FIGURE 1.—Features of *Orochlesis*: *a*, *O. bella*; diagram of the prothorax of *O. angulata*; *c*, *d*, and *e*, diagrams to show the arrangement of the scales on the prothorax before the scutellum of *c*, *O. tessellata*, *d*, *O. nigra*, *e*, *O. eluta*.

Ovalau, Fiji. Holotype collected by H. W. Simmonds, June 19, 1924, deposited in the British Museum, and two paratypes, one bearing the label "Rewa, Fiji Is." is deposited in Bernice P. Bishop Museum, and the other collected by Dr. H. S. Evans at Waiyevo, Taveuni, February 26, 1924, is deposited in the British Museum.

The two paratypes are only about one half the bulk of the holotype. Although they are abnormally small I can find no characters to separate them from the holotype. This species is obviously closely related to *O. nigra*. It can best be distinguished from that species by the shape of the scales on the pronotum. On *O. nigra* they are rounded and often touch one another, whereas on *O. tessellata* they are elongate, sub-triangular and are distinctly separated with much of the derm exposed between them. Figure 1, *c* and *d*, shows this arrangement.