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Four New Microcryptorhynchus from the New Hebrides and Caroline Islands

(Coleoptera, Curculionidae)

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Knowledge of the geographical distribution of the species in the large cryptorhynchine genus *Microcryptorhynchus* has been greatly increased by recent investigations; but there are many islands and island groups, from which we have no records or specimens, which are surely inhabited by the genus. This paper presents descriptions of four species from islands from which no members of the genus have been recorded heretofore. These new data close some great distributional gaps. The described species are:

Microcryptorhynchus squamicollis, new species.

New Hebrides: Erromanga.

Microcryptorhynchus cheesmanae, new species.

New Hebrides: Erromanga.

Microcryptorhynchus kondoi, new species.

Caroline Islands: Ponape.

Microcryptorhynchus trukae, new species.

Caroline Islands: Truk.

The New Hebrides Islands probably support a well-developed and diversified group of species, and there is most certainly a number of species among the various Caroline Islands; but it will take an experienced collector trained in the technique of finding such minute beetles to procure a truly representative collection of species from those areas.

I wish to thank Sir Guy A. K. Marshall for having the New Hebridean specimens collected by Miss Cheesman sent to me for study from the British Museum.

Microcryptorhynchus squamicollis, new species (fig. 1, a).

Derm black, usually somewhat diluted with red, shiny above, not covered by an incrustation; most of the dorsal setae black; pronotum with the basal margin clothed with white or pale yellow scales and with a prominent, normally elongate-triangular vitta of broad, similarly colored scales extending from the base in front of elytral interval five forward to the basal third.

Head concealed from above by the pronotum; dull, coarsely reticulate, apparently impunctate; rather densely clothed with fine, almost hairlike, prostrate setae, all directed toward the middle of the head, those near the pronotum darker than the anterior ones which become coarser toward the rostrum; interocular area with a single or partially double row of conspicuous, narrowly lanceolate, pale, erect setae along either side which extend only onto the base of the rostrum. Rostrum in the male dull, coarsely reticulate, densely and rather coarsely punctate from the base to the antennae, the punctures bearing coarse recumbent setae, not carinate; shiny in the female, densely punctate only at the extreme base, thence with the punctures arranged in two rows on either side, distinctly punctate beyond the antennae. Prothorax as broad as long or very slightly longer than broad, but, because of its shape, usually appearing distinctly longer than broad, broadest just behind the middle, the anterior part slightly more antennuated than the posterior part; the subapical constriction not strongly marked, not or hardly interrupting the longitudinal dorsal contour which is otherwise rather evenly convex with its greatest convexity in the basal third; densely set with large punctures the interstices of which are narrower than the diameters; evenly set throughout with very conspicuous, long, slender, straight, erect, spikelike setae similar to those on the elytra, these setae interspersed with a second type of setae which are prostrate, long, hairlike, directed anteriorly, and most of which are white or yellowish along the median line and on the sides; the scales on the basal vittae dense and concealing the derm; the basal squamose area straight and unmodified at the middle and with the squamae continued conspicuously around the entire basal margin. Elytra inflated, about four fifths as broad as long, two fifths longer than the prothorax, somewhat broadly subcordate in shape, broadest at about the basal fifth, thence roundly narrowing to the apex, without a distinct subapical constriction; striae closely set with large, coarse, subquadrate punctures which are as broad as the intervals near the base, but smaller and narrower than the intervals caudad; the intervals loosely to comparatively densely set with fine, prostrate, in some places rather inconspicuous, hairlike setae and each interval bristling with a row of very long, slender, erect, spikelike setae similar to those on the pronotum and which are about as long as the distance across the first two intervals at the middle of the elytra. Legs with the femora and tibiae rather densely clothed with prostrate, hairlike setae and bristling with very long erect setae similar to those on the elytra; tibial unci distinct and well developed throughout, apparently arising from about the middle of the apex of the tibiae. Sternum with the mesosternal receptacle deep and cavernous, with complete, high side walls, the aperture U-shaped, more broadly so in the male than female, terminating before the middle of the mesocoxae in both sexes, the hind wall slightly protuberant, very thick and heavy, almost as long as the distance between the mid and hind coxae; metasternum densely set with large, coarse punctures that bear slender. sharp, curved setae, only about one third the length of a metacoxa at its narrowest point between the mid and hind coxae, densely squamose adjacent to the elytra. Venter with the first two ventrites densely set with large, very coarse

setiferous punctures, second ventrite declivitous behind; ventrites three and four impunctate; ventrite five densely set with coarse setiferous punctures. Length, 1.5-2.0 mm.; breadth, 0.75-1.0 mm.

New Hebrides. Holotype male, in the British Museum (Natural History), allotype female, in Bishop Museum, and 18 paratypes collected by Miss L. E. Cheesman at Erromanga, August 1930. Some of the specimens bear the following field numbers: Er. 124, 104, 86, 83, 80, and 77.

This very spiny species is easily recognized by its conspicuous setae and by the prominent squamose vitta on either side of the base of the pronotum. I do not recall having seen such a vitta on any other member of the genus; it is most distinct.

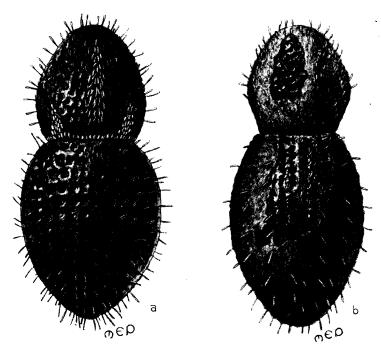


FIGURE 1.—a, Microcryptorhynchus squamicollis; b, M. cheesmanae.

Microcryptorhynchus cheesmanae, new species (fig. 1, b).

Female: derm black but diluted with red, appendages and lower surface more obviously piceous, distinctly shiny where exposed; normally almost entirely covered with a dense, mud-colored, amorphous incrustation that com-

pletely conceals the derm above; squamules and setae whitish or pale, rather translucent brown.

Head concealed from above by the pronotum, reticulate, finely punctate, closely set with prostrate, dorsally directed squamiform setae, interocular area rather densely, confusedly set with numerous inclined, mostly sublanceolate setae. Rostrum coarsely and densely punctured only at base and there with the setae continuous with those of the interocular area, with a punctate stria above the punctate suprascrobal sulcus bearing minute setae; with minute scattered punctures beyond the antennae. Prothorax slightly longer than broad, broadest at or slightly behind the middle, somewhat more narrowed anteriorly than posteriorly and with the subapical constriction impressed on the sides and continued broadly and distinctly across the dorsum, which is therefore sinuous in longitudinal dorsal outline; densely set throughout with moderately coarse punctures whose interstices are narrower than their diameters; with narrow, recumbent, anteriorly directed setae, normally hidden by the incrustation, scattered over the surface and with numerous, long, erect, bristling, slender or narrowly clavate setae distributed over the dorsum; the basal squamose area convex in the middle. Elytra more than three fifths as broad as long, not quite twice as long as the prothorax, broadly arcuate on the sides, but with a slight subapical constriction, broadest at or behind the middle; striae narrower or about as broad as the intervals on the disk, their punctures rounded and bearing conspicuous recurved setae; the odd-numbered intervals each bearing a row of long, slender, usually sharp, spikelike, bristly, erect setae fully as long as the distance across the first two intervals, the setose intervals slightly more convex than the even-numbered non-setose intervals, all the intervals bearing small prostrate setae similar to, but usually coarser than, those borne from the strial punctures. Legs with the femora and tibiae with prostrate setae in addition to bristling with long erect setae similar to those on the elytra; tibial unci strongly developed throughout, apparently arising from the middle of the apices of the tibiae. Sternum with mesosternal receptacle U-shaped, only shallowly cavernous, the aperture terminating close to the hind margin of mesocoxae in the female, side walls high, narrow, complete, their margins normally densely setose, hind wall narrow, cariniform, distinctly protuberant; metasternum densely set with coarse, setiferous punctures, as long or very nearly as long between the mid and hind coxae as the length of a metacoxa. Venter with first two ventrites densely set with coarse setiferous punctures similar to those on the metasternum, setae rather dense and coarse; ventrites three and four with some small punctures bearing small setae; ventrite five punctate and setose. Length, 1.75-1.80 mm.; breadth, 0.75-0.80 mm.

New Hebrides. Holotype female, in the British Museum (Natural History), collected by Miss Cheesman at Erromanga, August 1930, with field number "Er. 143", and one paratype, in Bishop Museum, bearing the same data but without the field number.

The paratype differs somewhat from the female holotype in characters that appear to indicate that it is a male. The mesosternal receptacle is shallower, the first ventrite is broadly concave, and the body is slightly narrower. However, the rostrum appears to be that of a female, and without having larger series or damaging the speci-

men by dissection, I am uncertain of its sex. The mesosternal receptacle is only slightly cavernous.

This species is of a very different type than its New Hebridean congener, *M. squamicollis*. It recalls several central and eastern Polynesian species, but it is not closely allied to any other I know.

I take pleasure in dedicating this species to Miss Cheesman in recognition of her diligent researches among the Pacific islands and of her discovery of the first known New Hebridean *Microcrypto-rhynchus*.

Microcryptorhynchus kondoi, new species (fig. 2, a).

Female: derm piceous to black, shiny when exposed, densely clothed with a thick, irregular, pale brown, amorphous incrustation that completely conceals the derm on at least the dorsum; squamae and setae white to pale brown.

Head concealed from above by the pronotum, closely set with minute punctures bearing small rounded squamae; interocular area squamose and with one complete and one incomplete row or comparatively short, spatulate or subsquamiform, erect setae along the inner margin of each eye. Rostrum reticulate, with a well-defined stria above each suprascrobal sulcus extending from the base to beyond the antennae and bearing hairlike, or coarser, medially inclined, recurved setae behind the antennae as does the suprascrobal sulcus; with numerous small punctures beyond the antennae. Prothorax slightly longer than broad (2.3:2.0), broadest just behind the middle; the subapical constriction broadly and shallowly impressed on the sides, distinctly impressed across the dorsum; densely set with comparatively deep, coarse, moderate-sized punctures about half as large on the disk as the discal elytral strial punctures and the interstices of which are obviously narrower than their diameters; the punctures bearing small, irregular or compound squamae; with numerous, erect, clavate, moderately long setae scattered over the surface; the basal squamose area flattened and extending conspicuously upward at the middle and there more or less semicircular. Elytra five sevenths as broad as long, three sevenths longer than the prothorax, broadest before the middle, thence arcuately narrowed to the rather pointed apex; striae coarse, their punctures very large, coarse, deep, quadrate, broader than the intervals, their interstices narrower than their diameters; discal intervals only about as broad as the interstices between the strial punctures, only the alternate intervals setose and those each bearing a row of long, erect, spikelike setae; with numerous small squamae similar to those on the prothorax, the strial punctures bearing part of these squamae but no setae. Legs with the femora and tibiae with fine prostrate setae and long, erect setae; the tibial unci rather small. Sternum with the mesosternal receptacle deep and cavernous, the aperture intermediate between U- and V-shaped, terminating near the hind margins of the mesocoxae, the walls complete, narrow, setose, slightly protuberant; metasternum closely set with coarse setiferous punctures, approximately three fourths as long between the mid and hind coxae as the length of a metacoxa. Venter with the sculpture and vestiture of the first two ventrites similar to that of the metasternum, the intercoxal part of the first ventrite twice as broad as the length of the metasternum between the mid and hind coxae; ventrites three and four with a few setae at the sides; ventrite five reticulate, paler than the preceding segments and bearing small setiferous punctures. Length, 1.4 mm.; breadth, 0.7 mm.

Caroline Islands: Ponape. Holotype female, in Bishop Museum, collected by Y. Kondo at Chap-ta-kai, February 19, 1936.

This small, generalized species differs greatly from its Caroline Islands congener, M. trukae, because of its much narrower form and convex basal squamose area of the pronotum.

I have dedicated this species to Yoshio Kondo, Assistant in Malacology at Bishop Museum, in recognition of his interest in collecting and in recognition of the many valuable insect specimens he has procured.

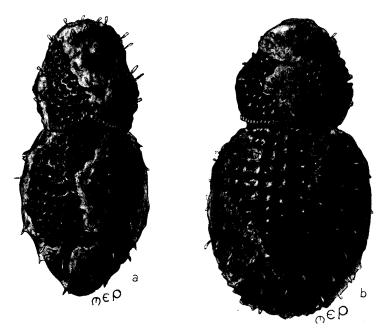


Figure 2.—a, Microcryptorhynchus kondoi; b, M. trukac.

Microcryptorhynchus trukae, new species (fig. 2, b).

Male: derm piceous to black, shiny when exposed, covered with a thick, dense, muddy gray incrustation; setae whitish.

Head concealed from above by the pronotum, densely set with small punctures which make the derm appear shagreened; interocular area evidently with two rows of short, stout, spatulate, erect setae along the inner sides of the eyes. Rostrum coarsely reticulate, conspicuously tricarinate behind the

antennae, the sulci between the carinae bearing short erect setae which are fine near the antennae but become clavate and spatulate toward the base; with minute punctures beyond the antennae. Prothorax broader than long (2.3:2.0), inflated on the sides in the basal three fourths, thence distinctly constricted, broadest at the middle, the subapical constriction continued deeply and prominently across the dorsum; very densely and reticulately set with coarse punctures, the interstices of which are much narrower than their diameters; with scattered, comparatively short, stout, clavate or spatulate setae; basal squamose area not elevated at the middle. Elytra subrotund, only a little longer than broad (8:7), twice as long as the prothorax, broadest at about the middle, broadly rounded behind; strial punctures large, coarse, quadrate; broader than the intervals; intervals only about as broad as the interstices between the strial punctures, only the alternate intervals setose and those each bearing a single row of comparatively short, spatulate, erect setae; with small, scattered, inconspicuous, compound squamae. Legs with the femora and tibiae bearing erect spatulate setae, more or less arranged in lines and similar to those on elytra, in addition to fine prostrate setae; tibiae with the unci arising from the outer apical angles and with a small but distinct mucro at each inner apical angle. Sternum with the mesosternal receptacle deep and cavernous, side walls high and complete, hind wall slightly protuberant and very thick, as broad as the length of the metasternum between the mid and hind coxae, aperture broadly U-shaped, terminating slightly before the middle of the mesocoxae in the male; metasternum closely set with coarse, setiferous punctures, hardly more than half as long between the mid and hind coxae as the length of a metacoxa. Venter with the first two ventrites with coarse, round, setiferous punctures, some of which are separated by interstices as broad as their diameters; intercoxal piece of first ventrite about twice as broad as the breadth of a metacoxa; ventrites three and four with a few minute, setiferous punctures; ventrite five with numerous small, setiferous punctures. Length, 1.5 mm.; breadth, 0.9 mm.

Caroline Islands: Truk group. Holotype male, in Bishop Museum, collected by Z. Ono on Tarik islet, January 3, 1936.

This species not only differs from M. kondoi because of its subglobose shape, but also because of the broad hind wall of the mesosternal receptacle and because of its distinct mucrones at the inner apical angles of the tibiae. M. trukae belongs to that group of rotund species allied to M. glomus Marshall from Samoa; it can be distinguished from glomus because of its shorter setae, less conspicuously squamose body, and smaller size. It differs from the similarly shaped M. guamae Zimmerman most obviously in that it has the elytral setae on the alternate intervals only.

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