MIOCALLES AND MICROCRYPTORHYNCHUS
(Curculionidae: Cryptorhynchinae)

By ELWOOD C. ZIMMERMAN

While making some comparative studies of the genera of Cryptorhynchinae in the British Museum (Natural History), in 1950, I found that the genus *Microcryptorhynchus* Lea was described earlier by Pascoe as *Miocalles*. (*Miocalles* is, fortunately, a much more convenient name than the cumbersome *Microcryptorhynchus*). Further, I have

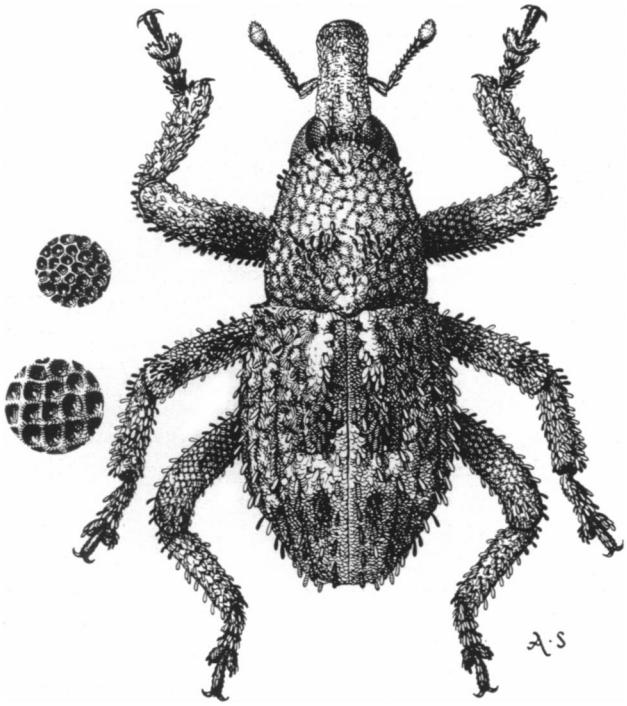

FIGURE 1—*Miocalles notatus* Pascoe. The holotype from Aru; length 3 mm., excluding head. The unci are developed on all tibiae, but they are obscured by the mid and hind tarsi on the drawing. (Drawn by Arthur Smith.)

found that certain species now resting under *Acalles* really belong to *Miocalles,* and the geographical distribution of the genus is wider than has been supposed. This paper is written to present this and other information, and it is considered worthwhile to publish at this time a list of the 114 described species.

I first became acquainted with these small Pacific island weevils more than 25 years ago while working on an extensive collection of Marquesan

weevils (upon which, unfortunately, my studies have not yet been completed). Since then, I have collected many hundreds of specimens in various parts of the Pacific, and collections made by other workers have come to hand. My interest in the group and its distribution continues, and some day, when the pressure of other work becomes less demanding, I hope to complete my studies of the assembled, unreported collections.

Genus MIOCALLES Pascoe

Miocalles Pascoe, 1883:97. Type: *Miocalles notatus* Pascoe, 1883:97, the only originally included species.

Microcryptorhynchus Lea, 1908:194. Type: *Microcryptorhynchus pygmaeus* Lea, 1908:195, the only included species. Lea, 1912:455 (in key); 1912:489, key to three Australian species. Zimmerman, 1936:9; 1936:17, 1938:21; 1942:114. **New synonym.**

Microcryptorrhynchus Marshall, 1931:282-284 (altered spelling). Hustache, 1936:233.

Miocalles appears not to have been mentioned, outside of catalogs, since it was described, and it has remained monotypic. Hustache placed *Microcryptorhynchus* immediately after *Cryptorhynchus* in *Coleopterorum Catalogus* (1936:233), but that is in error. The genus is allied to the *Acalles* group of genera, but not the *Cryptorhynchus* series. *Miocalles,* however, was more appropriately placed by Hustache among the genera following *Acalles* in the *Catalogus.*

Miocalles is a large assemblage of small and very small weevils whose larvae bore in dead wood, dead twigs and dead ferns. The adults are most often to be found in association with dead twigs and branches and dead fern fronds, but I have found some species on living foliage. The genus is widely spread in the Pacific, and in southeastern Polynesia it constitutes a dominant feature of the insect faunas of the high islands. Today we are able to report that these little weevils are found from Aru and Mysol (islands near the western part of New Guinea), along the eastern part of Australia to Tasmania, in Micronesia (although most of the records are in my incompleted manuscript) from Palau to the Marianas to Wake Island on the north and the high islands of the Carolines on the south and east, and from the New Hebrides and New Caledonia through the high islands of Polynesia all the way out to the Marquesas and Henderson on the east and through the Australs to Rapa and Marotiri on the south. More than 40 species occur on the small island of Rapa alone, and the complex of species (undescribed) occurring in the Marquesas also is extraordinary. I have described 18 species from Tahiti, but that is only part of that fauna. Our collections contain

a large number of undescribed species from the Marquesas, Samoa, Fiji, Micronesia and other islands. None have been reported from New Guinea and many of the adjacent islands where we may expect to find them when those areas are explored adequately. Peculiarly, the genus has never become established in Hawaii.

I mentioned New Zealand as one of the localities inhabited by the genus, but this information is new, and none of the weevils have heretofore been reported from New Zealand. Many years ago, I studied some examples of the genus from the Greymouth region of the South Island, but these have remained undetermined. I have since examined the New Zealand collections in the British Museum and have found that some of the so-called New Zealand *Acalles* really belong to *Miocalles*, and the new records are incorporated below.

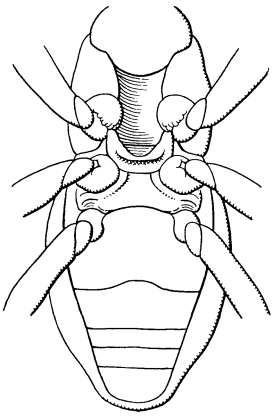

FIGURE 2—*Miocalles notatus* Pascoe. Sketch of the ventral side of Pascoe's second specimen, from Mysol. (Drawn by Arthur Smith.)

Corrections to *Coleopterorum Catalogus*

The "Junk Catalog" bristles with errors, and a few concerning the present problem are as follows:

p. 124, read *wilkesii* for *Wilkesi*.

p. 233, *Microcryptorhynchus* was originally spelled with one r before the h. It is out of place next to *Cryptorhynchus* and belongs in the Tylodina in the *Acalles* series.

———, under *orbiculus*, read p. 454 instead of p. 455.

———, under *oreas*, the locality is Lord Howe Island, not Marquesas.

———, under *planiceps*, the locality is Marquesas, not Tasmania.

p. 234, under *pygmaeus*, read p. 195 instead of p. 194, and the locality is King Island, Bass Straight, Australia, not Fiji, and Lea recorded a "var.?" from Mount Wellington, Tasmania.

———, under *rotundipennis*, the locality is Fiji, not Lord Howe Island.

Catalog of *Miocalles*

Herewith is a list of the described species as now recognized by me. Following the alphabetical list is an arrangement based upon geographical distribution.

Miocalles abditiceps (Zimmerman), new combination.
Microcryptorhynchus abditiceps Zimmerman, 1938:64, fig. 6,d; pl. 1, no. 27.
Austral Islands: Rapa. Hostplants: ferns, *Fitchia.*

Miocalles abnormis (Zimmerman), new combination.
Microcryptorhynchus abnormis Zimmerman, 1938:44, fig. 5,h-i; pl. 2, no. 5.
Austral Islands: Rapa. Hostplant: *Pteris* fern.

Miocalles ambiguus (Zimmerman), new combination.
Microcryptorhynchus ambiguus Zimmerman, 1936:33, fig. 4,i.
Society Islands: Tahiti. Hostplant: fern.

Miocalles analis (Marshall), new combination.
Microcryptorrhynchus analis Marshall, 1931:282, fig. 11,c. Zimmerman, 1941:169.
Samoa: Tutuila, Upolu. Hostplant: beaten from various shrubs.

Miocalles andersoni (Zimmerman), new combination.
Microcryptorhynchus andersoni Zimmerman, 1938:60, pl. 2, no. 7.
Austral Islands: Rapa. Hostplants: *eurya,* ferns, *Fitchia, Lautea.*

Miocalles angustatus (Zimmerman), new combination.
Microcryptorhynchus angustatus Zimmerman, 1936:28, fig. 1,f.
Society Islands: Tahiti. Hostplant: *Cyathea* fern.

Miocalles angustior (Lea), new combination.
Microcryptorhynchus angustior Lea, 1928:88.
Fiji: Viti Levu.

Miocalles ater (Zimmerman), new combination.
Microcryptorhynchus ater Zimmerman, 1938:35, pl. 1, no. 2.
Austral Islands: Rapa. Hostplants: *Bidens, Fitchia, Sclerotheca.*

Miocalles basipennis (Zimmerman), new combination.
Microcryptorhynchus basipennis Zimmerman, 1942:118, pl. 3,D.
Mariana Islands: Guam. Hostplant: *Pipturus.*

Miocalles bicolor (Zimmerman), new combination.
Microcryptorhynchus bicolor Zimmerman, 1938:36, fig. 5,g; pl. 1, no. 4.
Austral Islands: Rapa. Hostplant: *Cyathea* fern.

Miocalles brevis (Zimmerman), new combination.
Microcryptorhynchus brevis Zimmerman, 1936:39, fig. 4,l.
Society Islands: Tahiti. Hostplants: ferns, *Freycinetia,* shrubs.

Miocalles caledonicus (Lea), new combination.
Microcryptorhyncus caledonicus Lea, 1928:89, Zimmerman, 1942:88.
New Caledonia.

Miocalles carinatus (Zimmerman), new combination.
Microcryptorhynchus carinatus Zimmerman, 1938:42, pl. 2, no. 12.
Austral Islands: Rapa. Hostplant: beaten from dead branches.

Miocalles caudatus (Zimmerman), new combination.
Microcryptorhynchus caudatus Zimmerman, 1936:21, fig. 4,c.
Society Islands: Huahine. Hostplant: *Blechnum* fern.

Miocalles chaetectetoroides (Zimmerman), new combination.
Microcryptorhynchus chaetectetoroides Zimmerman, 1938:41, pl. 2, no. 3.
Austral Islands: Rapa. Hostplants: *Homolanthus*, ferns?, *Fitchia*?

Miocalles cheesmanae (Zimmerman), new combination.
Microcryptorhynchus cheesmanae Zimmerman, 1939:169, fig. 1,b.
New Hebrides: Erromanga.

Miocalles collenettei (Marshall), new combination.
Microcryptorhynchus collenettei Marshall, 1931:456.
Marquesas: Hivaoa.

Miocalles confinis (Zimmerman), new combination.
Microcryptorhynchus confinis Zimmerman, 1936:29, fig. 4,o.
Society Islands: Tahiti. Hostplant: fern.

Miocalles convexus (Zimmerman), new combination.
Microcryptorhynchus convexus Zimmerman, 1936:34, fig. 2,e.
Society Islands: Tahiti. Hostplants: fern, *Metrosideros.*

Miocalles cookei (Zimmerman), new combination.
Microcryptorhynchus cookei Zimmerman, 1936:10, figs. 1,b; 2,f.
Austral Islands: Raivavae. Hostplant: *Pteris* fern.

Miocalles crinitus (Zimmerman), new combination.
Microcryptorhynchus crinitus Zmimerman, 1938:33, pl. 2, no. 2.
Austral Islands: Rapa.

Miocalles curtus (Zimmerman), new combination.
Microcryptorhynchus curtus Zimmerman, 1938:34, pl. 1, no. 1.
Austral Islands: Rapa. Hostplants: *Bidens, Coprosma, Lautea.*

Miocalles curvus (Zimmerman), new combination.
Microcryptorhynchus curvus Zimmerman, 1938:68, fig. 6,b; pl. 2, no. 13.
Austral Islands: Rapa. Hostplant: fern.

Miocalles cylindricollis (Lea), new combination.
Microcryptorhynchus cylindricollis Lea, 1912:138.
Western Australia: Mt. Barker (north of Albany).
I have not seen this geographically isolated species. Its relationships should be examined with care.

Miocalles discretus (Zimmerman), new combination.
Microcryptorhynchus discretus Zimmerman, 1936:30, fig. 4,a.
Society Islands: Tahiti. Hostplant: probably *Blechnum* and possibly other ferns; occasionally found on other plants which are not hostplants.

Miocalles echinatus (Lea), new combination.
Microcryptorhynchus echinatus Lea, 1912:137.
Australia: New South Wales.

Miocalles evanescens (Lea), new combination.
Microcryptorhynchus evanescens Lea, 1928:83.
Australia: Yorke Island, Queensland.

Miocalles exilis (Zimmerman), new combination.
Microcryptorhynchus exilis Zimmerman, 1936:40, fig. 4,q.
Society Islands: Tahiti. Hostplant: fern.

Miocalles fasciatus (Zimmerman), new combination.
Microcryptorhynchus fasciatus Zimmerman, 1938:44, pl. 1, no. 10.
Austral Islands: Rapa. Hostplant: *Eurya.*

Miocalles fasciculatus (Lea), new combination.
Microcryptorhynchus fasciculatus Lea, 1928:86.
Lord Howe Island.

Miocalles fitchiae (Zimmerman), new combination.
Microcryptorhynchus fitchiae Zimmerman, 1938:40, pl. 1, no. 8.
Austral Islands: Rapa. Hostplants: *Fitchia, Piper*?

Miocalles fosbergi (Zimmerman), new combination.
Microcryptorhynchus fosbergi Zimmerman, 1936:26, figs. 1,d; 4,g.
Society Islands: Tahiti. Hostplant: *Cyathea* fern.

Miocalles foveaventris (Zimmerman), new combination.
Microcryptorhynchus foveaventris Zimmerman, 1938:63, pl. 1, no. 26.
Austral Islands: Rapa. Hostplant: *Asplenium nidus,* fern.

Miocalles fraudator (Zimmerman), new combination.
Microcryptorhynchus fraudator Zimmerman, 1936:37, fig. 4,f.
Society Islands: Tahiti. Hostplant: beaten from shrubs.

Miocalles freycinetiae (Zimmerman), new combination.
Microcryptorhynchus freycinetiae Zimmerman, 1936:40, fig. 4,s.
Society Islands: Tahiti. Hostplant: *Freycinetia.*

Miocalles fulgidus (Zimmerman), new combination.
Microcryptorhynchus fulgidus Zimmerman, 1936:36, figs. 1,e; 2,b.
Society Islands: Tahiti. Hostplant: fern.

Miocalles glaber (Zimmerman), new combination.
Microcryptorhynchus glaber Zimmerman, 1938:39, pl. 1, no. 7.
Austral Islands: Rapa. Hostplants: *Bidens, Fitchia, Lautea.*

Miocalles globus (Zimmerman), new combination.
Microcryptorhynchus globus Zimmerman, 1942:85, figs. 1, a.b.
New Caledonia.

Miocalles glomus (Marshall), new combination.
Microcryptorrhynchus glomus Marshall, 1931:284, fig. 11,a.
Samoa: Tutuila, Upolu.

Miocalles gracilis (Zimmerman), new combination.
Microcryptorhynchus gracilis Zimmerman, 1936:15, figs. 1,d; 2,d (not h as originally printed).
Austral Islands: Tubuai. Hostplant: fern.

Miocalles guamae (Zimmerman), new combination.
Microcryptorhynchus guamae Zimmerman, 1942:115, pl. 3, E; 1948:314.
Mariana Islands: Guam, Tinian, Saipan. Histplants: *Acacia confusa, Aglaia, Cestrus diurnum, Premna gaudichaudii.*

Miocalles hirtus (Zimmerman), new combination.
Microcryptorhynchus hirtus Zimmerman, 1936:14, fig. 2,h.
Austral Islands: Tubuai. Hostplant: fern.

Miocalles howensis (Lea), new combination.
Microcryptorhynchus howensis Lea, 1928:84.
Lord Howe Island.

Miocalles humeralis (Zimmerman), new combination.
Microcryptorhynchus humeralis Zimmerman, 1938:62, pl. 1, no. 25.
Austral Islands: Rapa. Hostplants: *Bidens, Coprosma, Lautea.*

Miocalles impressicollis (Zimmerman), new combination.
Microcryptorhynchus impressicollis Zimmerman, 1938:49, pl. 1, no. 14.
Austral Islands: Rapa. Hostplant: *Asplenium nidus* fern.

Miocalles impressus (Zimmerman), new combination.
Microcryptorhynchus impressus Zimmerman, 1938:32, fig. 5,b-d; pl. 2, no. 1.
Austral Islands: Rapa. Hostplants: *Bidens, Fitchia, Piper.*

Miocalles interruptus (Lea), new combination.
Microcryptorhynchus interrupta Lea, 1928:86.
Lord Howe Island.

Miocalles irregularis (Zimmerman), new combination.
Microcryptorhynchus irregularis Zimmerman, 1938:48, fig. 6,e; pl. 1, no. 13.
Austral Islands: Rapa. Hostplant: *Cyathea* fern.

Miocalles irroratus (Zimmerman), new combination.
Microcryptorhynchus irroratus Zimmerman, 1936:33, fig. 4,h.
Society Islands: Tahihi. Hostplant: fern.

Miocalles kondoi (Zimmerman), new combination.
Microcryptorhynchus kondoi Zimmerman, 1939:171, fig. 2,a.
Caroline Islands: Ponape.

Miocalles leviculus (Broun), new combination.
Acalles leviculus Broun, 1881:721.
New Zealand: Wellington.

Miocalles lucens (Zimmerman), new combination.
Microcryptorhynchus lucens Zimmerman, 1938:38, pl. 1, no. 6.
Austral Islands: Rapa. Hostplant: *Fitchia.*

Miocalles mangaoae (Zimmerman), new combination.
Microcryptorhynchus mangaoae Zimmerman, 1938:35, pl. 1, no. 3.
Austral Islands: Rapa. Hostplant: *Cyathea* fern.

Miocalles mangarevae (Zimmerman), new combination.
Microcryptorhynchus mangarevae Zimmerman, 1936:4, fig. 1,a.
Mangareva Island. Hostplant: *Asplenium nidus* fern.

Miocalles minutus (Zimmerman), new combination.
Microcryptorhynchus minutus Zimmerman, 1936:19, fig. 4,k.
Society Islands: Raiatea. Hostplant: *Pandanus.*

Miocalles modicus (Zimmerman), new combination.
Microcryptorhynchus modicus Zimmerman, 1936:32, fig. 4,r.
Society Islands: Tahiti.

Miocalles montevagus (Zimmerman), new combination.
Microcryptorhynchus montevagus Zimmerman, 1936:35, fig. 2,d.
Society Islands: Tahiti. Hostplant: fern.

Miocalles morongotae (Zimmerman), new combination.
Microcryptorynchus morongotae Zimmerman, 1938:51, pl. 1, no. 16.
Austral Islands: Rapa. Hostplant: *Metrosideros.*

Miocalles niger (Zimmerman), new combination.
Microcryptorhynchus niger Zimmerman, 1938:46, pl 2, no. 9.
Austral Islands: Rapa. Hostplants: *Bidens, Fitchia.*

Miocalles nitidus (Zimmerman), new combination.
Microcryptorhynchus nitidus Zimmerman, 1938:51, pl. 1, no. 15.
Austral Islands: Rapa. Hostplants: *Acalypha, Asplenium nidus* fern.

Miocalles norfolcensis (Lea), new combination.
Microcryptorhynchus norfolcensis Lea, 1928:83.
Norfolk Island.

Miocalles notatus Pascoe (fig. 1, 2).
Miocalles notatus Pascoe, 1883:97.
Aru (holotype locality), Mysol (Misol) (islands off southwest and west New Guinea).
These two islands are a considerable distance apart, and I wonder if some error has been made in labeling one of the two known specimens.

Miocalles obesus (Zimmerman), new combination.
Microcryptorhynchus obesus Zimmerman, 1938:50, fig. 6,c; pl. 2, no. 10.
Austral Islands: Rapa. Hostplants: ferns, *Fitchia?, Piper?*

Miocalles orbiculus (Marshall), new combination.
Microcryptorrhynchus orbiculus Marshall, 1931:454.
Marquesas: Hivaoa.

Miocalles oreas (Lea), new combination.
Microcryptorhynchus oreas Lea, 1928:85.
Lord Howe Island.

Miocalles orientissimus (Zimmerman), new combination.
Microcryptorhynchus orientissimus Zimmerman, 1936:7, fig. 1,b.
Henderson Island. Hostplant: beaten from shrubs.

Miocalles orofenae (Zimmerman), new combination.
Microcryptorhynchus orofenae Zimmerman, 1936:41, fig. 4,e.
Society Islands: Tahiti. Hostplant: *Cyathea* fern.

Miocalles paenulatus (Zimmerman), new combination.
Microcryptorhynchus paenulatus Zimmerman, 1938:53, pl. 1, no. 19.
Austral Islands: Rapa. Hostplants: *Asplenium nidus,* ferns, *Bidens, Cyathea, Homolanthus, Metrosideros.*

Miocalles pallidus (Zimmerman), new combination.
Microcryptorhynchus pallidus Zimmerman, 1936:20, fig. 4,n.
Society Islands: Huahine. Hostplant: beaten from shrubs.

Miocalles parvus (Zimmerman), new combination.
Microcryptorhynchus parvus Zimmerman, 1936:17, fig. 1,c.
Austral Islands: Rurutu. Hostplant: *Dryopteris* fern.

Miocalles perpusillus (Pascoe), new combination.
Acalles perpusillus Pascoe, 1877:147. Broun, 1880:490.
New Zealand: Tairua.

Miocalles pervisus (Zimmerman), new combination.
Microcryptorhynchus pervisus Zimmerman, 1936:31, fig. 4,d.
Society Islands: Tahiti. Hostplant: fern.

Miocalles piciventris (Broun), new combination.
Acalles piciventris Broun, 1909:120.
Auckland Island (south of New Zealand).

Miocalles planatus (Zimmerman), new combination.
Microcryptorhynchus planatus Zimmerman, 1936:38, figs. 2,c; 4,b.
Society Islands: Tahiti. Hostplant: *Freycinetia.*

Miocalles planiceps (Marshall), new combination.
Microcryptorrhynchus planiceps Marshall, 1931:456.
Marquesas: Hivaoa.

Miocalles premnae (Zimmerman), new combination.
Microcryptorhynchus premnae Zimmerman, 1942:116, pl. 3,H.
Mariana Islands: Guam. Hostplant: *Premna gaudichaudii.*

Miocalles proximus (Zimmerman), new combination.
Microcryptorhynchus proximus Zimmerman, 1938:37, pl. 1, no. 5.
Austral Islands: Rapa. Hostplants: *Bidens, Cyathea, Fitchia, Sclerotheca.*

Miocalles punctipennis (Zimmerman), new combination.
Microcryptorhynchus punctipennis Zimmerman, 1938:66, fig. 6,g; pl. 1, no. 29.
Austral Islands: Rapa. Hostplants: ferns and shrubs.

Miocalles pusillus (Zimmerman), new combination.
Microcryptorhynchus pusillus Zimmerman, 1938:57, pl. 1, no. 21.
Austral Islands: Rapa. Hostplants: *Asplenium nidus* and shrubs.

Miocalles pygmaeus (Lea), new combination.
Microcryptorhynchus pygmaeus Lea, 1908:195.
Australia: King Island, Bass Straight. A variety ? from Mount Wellington, Tasmania.

Miocalles raivavaensis (Zimmerman), new combination.
Microcryptorhynchus raivavaensis Zimmerman, 1936:12, fig. 2,e.
Austral Islands: Raivavae. Hostplants: *Alyxia,* a species of Celastraceae, *Hernandia, Metrosideros, Mygoporum, Pteris* fern.

Miocalles reticulatus (Zimmerman), new combination.
Microcryptorhynchus reticulatus Zimmerman, 1938:47, pl. 1, no. 12.
Austral Islands: Rapa. Hostplant: *Eurya.*

Miocalles rotundipennis (Lea), new combination.
Microcryptorhynchus rotundipennis Lea, 1928:88.
Fiji: Viti Levu, Ovalau, Mokondronga.

Miocalles rubellus (Zimmerman), new combination.
Microcryptorhynchus rubellus Zimmerman, 1936:22, fig. 4,m
Society Islands: Huahine. Hostplants: shrubs.

Miocalles rufimanus (Lea), new combination.
Microcryptorhynchus rufimanus Lea, 1928:84.
Norfolk Island.

Miocalles rufirostris (Lea), new combination.
Microcryptorhynchus rufirostris Lea, 1928:85.
Lord Howe Island.

Miocalles rurutuensis (Zimmerman), new combination.
Microcryptorhynchus rurutuensis Zimmerman, 1936:16.
Austral Islands: Rurutu. Hostplant: *Dryopteris* fern.

Miocalles sancti-johni (Zimmerman), new combination.
Microcryptorhynchus sancti-johni Zimmerman, 1938:59, pl. 1, no. 23.
Austral Islands: Rapa. Hostplant: *Homolanthus.*

Miocalles setifer (Broun), new combination.
Acalles setifer Broun, 1886:867.
New Zealand: Waitakerei Range.

Miocalles setigerus Zimmerman, new name.
Microcryptorhynchus setifer Zimmerman, 1938:67, fig. 6,a; pl. 2, no. 14.
Austral Islands: Rapa. Hostplants: *Bidens, Coprosma, Cyathea, Eurya, Fitchia, Freycinetia, Lautea, Metrosideros, Veronica.*

The transfer of *setifer* Broun, 1886, from *Acalles*, creates a homonym of *setifer* Zimmerman, 1938, which thus must be renamed.

Miocalles setosus (Lea), new combination.
Microcryptorhynchus setosus Lea, 1928:87.
Norfolk Island.

Miocalles setulosus (Zimmerman), new combination.
Microcryptorhynchus setulosus Zimmerman, 1938:56, pl. 1, no. 20.
Austral Islands: Rapa. Hostplants: *Asplenium nidus* and *Cyathea* ferns, *Fitchia* (the true host is probably the *Asplenium*).

Miocalles silvestris (Zimmerman), new combination.
Microcryptorhynchus silvestris Zimmerman, 1938:58, pl. 1, no. 22.
Austral Islands: Rapa. Hostplant: *Bidens*.

Miocalles similis (Zimmerman), new combination.
Microcryptorhynchus similis Zimmerman, 1936:27.
Society Islands: Tahiti. Hostplants: ferns and shrubs.

Miocalles spathifer (Zimmerman), new combination.
Microcryptorhynchus spathifer Zimmerman, 1938:62, pl. 1, no. 24.
Austral Islands: Rapa. Hostplant: *Asplenium nidus* fern.

Miocalles spinifer (Zimmerman), new combination.
Microcryptorhynchus spinifer Zimmerman, 1942:117, pl. 3, F.
Mariana Islands: Guam.

Miocalles squamicollis (Zimmerman), new combination.
Microcryptorhynchus squamicollis Zimmerman, 1939:168, fig. 1,a.
New Hebrides: *Erromanga*.

Miocalles squamosus (Zimmerman), new combination.
Microcryptorhynchus squamosus Zimmerman, 1938:43, pl. 1, no. 9.
Austral Islands: Rapa.

Miocalles sternalis (Zimmerman), new combination.
Microcryptorhynchus sternalis Zimmerman, 1938:45, fig. 5,j; pl. 1, no. 11.
Austral Islands: Rapa. Hostplant: *Metrosideros*.

Miocalles subscutellatus (Marshall), new combination.
Microcryptorrhynchus subscutellatus Marshall, 1931:283, fig. 11,b.
Samoa: Upolu.

Miocalles superstes (Zimmerman), new combination.
Microcryptorhynchus superstes Zimmerman, 1936:3, fig. 1.
Austral Islands: Marotiri. Hostplant: probably *Bidens*.

Miocalles tahaae (Zimmerman), new combination.
Microcryptorhynchus tahaae Zimmerman, 1936:19.
Society Islands: Tahaa. Hostplants: shrubs.

Miocalles tenuis (Zimmerman), new combination.
Microcryptorhynchus tenuis Zimmerman, 1938:54, pl. 1, no. 18.
Austral Islands: Rapa. Hostplants: *Cyathea* fern, *Eurya, Fitchia, Freycinetia, Lautea*.

Miocalles testaceus (Zimmerman), new combination.
Microcryptorhynchus testaceus Zimmerman, 1936:14, fig. 2,a.
Austral Islands: Tubuai. Hostplant: fern.

Miocalles thoracicus (Zimmerman), new combination.
Microcryptorhynchus thoracicus Zimmerman, 1938:65, fig. 6,f; pl. 1, no. 28.

Austral Islands: Rapa. Hostplants: *Asplenium nidus* and perhaps other ferns, *Eurya?*

Miocalles trukae (Zimmerman), new combination.
Microcryptorhynchus trukae Zimmerman, 1939:172, fig. 2,b.
Caroline Islands: Truk.

Miocalles tubuaiensis (Zimmerman), new combination.
Microcryptorhynchus tubuaiensis Zimmerman, 1936:13, fig. 2,g.
Austral Islands: Tubuai. Hostplant: fern.

Miocalles tumidus (Zimmerman), new combination.
Microcryptorhynchus tumidus Zimmerman, 1938:60, pl. 2, no. 4.
Austral Islands: Rapa. Hostplant: *Asplenium nidus* fern.

Miocalles vagus (Zimmerman), new combination.
Microcryptorhynchus vagus Zimmerman, 1936:17, fig. 4,p.
Society Islands: Borabora, Huahine, Moorea, Tahiti. Hostplants: *Alyxia,* a species of Celastraceae.

Miocalles varians (Zimmerman), new combination.
Microcryptorhynchus varians Zimmerman, 1938:55, fig. 5,f; pl. 2, no. 6.
Austral Islands: Rapa. Hostplants: *Bidens, Cyathea* ferns, *Eurya, Fitchia, Metrosideros.*

Miocalles ventralis (Zimmerman), new combination.
Microcryptorhynchus ventralis Zimmerman, 1938:52, pl. 1, no. 17.
Austral Islands: Rapa. Hostplant: *Asplenium nidus* fern.

Miocalles vitiensis (Lea), new combination.
Microcryptorhynchus vitiensis Lea, 1928:89.
Fiji: Viti Levu, Ovalau, Taveuni.

Miocalles wilkesii (Perkins), new combination.
Acalles wilkesii Perkins, 1926:63.
Acalles Wilkesi, alteration of spelling by Hustache, 1936:124.
Microcryptorhynchus wilkesii (Perkins) Zimmerman, 1938:151.
Wake Island: Wilkes Islet. Hostplant: *Sida.*

Miocalles williamsi (Zimmerman), new combination.
Microcryptorhynchus williamsi Zimmerman, 1942:86, fig. 1,c,d.
New Caledonia.

GEOGRAPHICAL ARRANGEMENT OF THE SPECIES OF MIOCALLES

ARU

notatus Pascoe, Aru and Mysol.

CAROLINE

kondoi (Zimmerman), Ponape.
trukae (Zimmerman), Truk.

MARIANA

basipennis (Zimmerman), Guam.
guamae (Zimmerman), Guam, Tinian, Saipan.
premnae (Zimmerman), Guam.
spinifer (Zimmerman), Guam.

WAKE ISLAND

wilkesii (Perkins).

NEW HEBRIDES

cheesmanae (Zimmerman), Erromanga.
squamicollis (Zimmerman), Erromanga.

FIJI

angustior (Lea), Viti Levu.

rotundipennis (Lea), Viti Levu, Ovalau, Mokondronga.
vitiensis (Lea), Viti Levu, Ovalau, Taveuni.

SAMOA

anilis (Marshall), Tutuila, Upolu.
glomus (Marshall), Tutuila, Upolu.
subscutellatus (Marshall), Upolu.

SOCIETY

ambiguus (Zimmerman), Tahiti.
angustatus (Zimmerman), Tahiti.
brevis (Zimmerman), Tahiti.
caudatus (Zimmerman), Huahine.
confinis (Zimmerman), Tahiti.
convexus (Zimmerman), Tahiti.
discretus (Zimmerman), Tahiti.
exilis (Zimmerman), Tahiti.
fosbergi (Zimmerman), Tahiti.
fraudator (Zimmerman), Tahiti.
freycinetiae (Zimmerman), Tahiti.
fulgidus (Zimmerman), Tahiti.
irroratus (Zimmerman), Tahiti.
minutus (Zimmerman), Raiatea.
modicus (Zimmerman), Tahiti.
montevagus (Zimmerman), Tahiti.
orofenae (Zimmerman), Tahiti.
pallidus (Zimmerman), Huahine.
pervisus (Zimmerman), Tahiti
planatus (Zimmerman), Tahiti.
rubellus (Zimmerman), Huahine.
similis (Zimmerman), Tahiti.
tahaae (Zimmerman), Tahaa.
vagus (Zimmerman), Borabora, Huahine, Moorea, Tahiti.

MARQUESAS

collenettei (Marshall), Hivaoa.
orbiculus (Marshall), Hivaoa.
planiceps (Marshall), Hivaoa.

AUSTRAL

abditiceps (Zimmerman), Rapa.
abnormis (Zimmerman), Rapa.
andersoni (Zimmerman), Rapa.
ater (Zimmerman), Rapa.
bicolor (Zimmerman), Rapa.
carinatus (Zimmerman), Rapa.
chaetectetoroides (Zimmerman), Rapa.
cookei (Zimmerman), Raivavae.
crinitus (Zimmerman), Rapa.
curtus (Zimmerman), Rapa.
curvus (Zimmerman), Rapa.
fasciatus (Zimmerman), Rapa.
fitchiae (Zimmerman), Rapa.
foveaventris (Zimmerman), Rapa.
glaber (Zimmerman), Rapa.
gracilis (Zimmerman), Tubuai.
hirtus (Zimmerman), Tubuai.
humeralis (Zimmerman), Rapa.
impressicollis (Zimmerman), Rapa.
impressus (Zimmerman), Rapa.
irregularis (Zimmerman), Rapa.
lucens (Zimmerman), Rapa.
mangaoae (Zimmerman), Rapa.
morongotae (Zimmerman), Rapa.
niger (Zimmerman), Rapa.
nitidus (Zimmerman), Rapa.
obesus (Zimmerman), Rapa.
paenulatus (Zimmerman), Rapa.
parvus (Zimmerman), Rurutu.
proximus (Zimmerman), Rapa.
punctipennis (Zimmerman), Rapa.
pusillus (Zimmerman), Rapa.
raivavaensis (Zimmerman), Raivavae.
reticulatus (Zimmerman), Rapa.
rurutuensis (Zimmerman), Rurutu.
sancti-johni (Zimmerman), Rapa.
setigerus (Zimmerman), Rapa.
setulosus (Zimmerman), Rapa.
silvestris (Zimmerman), Rapa.
spathifer (Zimmerman), Rapa.
squamosus (Zimmerman), Rapa.
sternalis (Zimmerman), Rapa.
superstes (Zimmerman), Marotiri.
tenuis (Zimmerman), Rapa.
testaceus (Zimmerman), Tubuai.
thoracicus (Zimmerman), Rapa.
tubuaiensis (Zimmerman), Tubuai.
tumidus (Zimmerman), Rapa.
varians (Zimmerman), Rapa.
ventralis (Zimmerman), Rapa.

MANGAREVA

mangarevae (Zimmerman), Mangareva.

HENDERSON ISLAND

orientissimus (Zimmerman).

AUSTRALIA

cylindricollis (Lea), West Australia.
echinatus (Lea), New South Wales.
evanescens (Lea), Queensland.
pygmaeus (Lea), King Island (Bass Strait), Tasmania?

NEW CALEDONIA

caledonicus (Lea).
globus (Zimmerman).
williamsi (Zimmerman).

NORFOLK ISLAND

norfolcensis (Lea).
rufimanus (Lea).
setosus (Lea).

LORD HOWE ISLAND

fasciculatus (Lea).
howensis (Lea).
interruptus (Lea).
oreas (Lea).
rufirostris (Lea).

NEW ZEALAND

leviculus (Broun).
perpusillus (Pascoe).
setifer (Broun).

AUCKLAND ISLAND

piciventris (Broun).

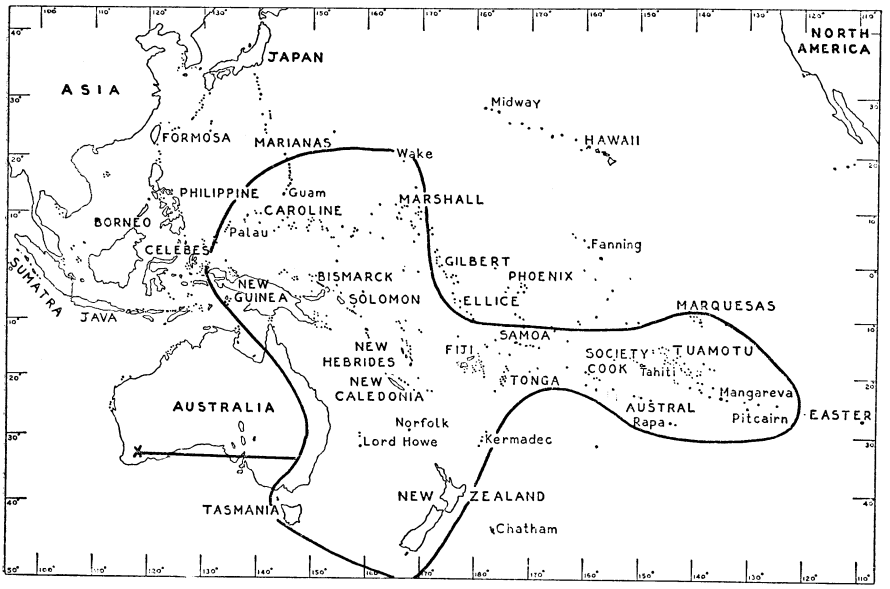

FIGURE 3—The area known to be occupied by *Miocalles*. No species has been recorded from many areas within these boundaries, however. For example, I have no records from the vast areas from New Guinea through the Solomons, but it is probable that many species occur there.

Bibliography

Broun, Thomas.

1880. Manual of the New Zealand Coleoptera. i-xix, 1-651. Colonial Mus. and Geological Survey Dept., Wellington.

———

1881. The same work, part II:i-viii, 653-744, xxi-xxiii.

———

1886. The same work, parts III and IV:i-xvii, 745-973.

———

1909. Descriptions of Coleoptera From the Subantarctic Islands of New Zealand; with Remarks on the Affinities of the Genera, etc. In, The Subantarctic Islands of New Zealand 1:78-123, pls. 3, 5.

Hustache, A.

1936. Cryptorrhynchinae, In W. Junk's Coleopterorum Catalogus, pars 151:1-317.

Lea, A. M.

1908. The Coleoptera of King Island, Bass Strait. Proc. Royal Soc. Victoria (new series) 20:143-207.

———

1912. Descriptions of Australian Curculionidae, With Notes on Previously described Species, part X. Trans. Royal Soc. South Australia 36:76-139.

———

1913. Revision of the Australian Curculionidae Belonging to the Subfamily Cryptorhynchides, part XII. Proc. Linn. Soc. New South Wales 38:451-489.

———

1928. Cryptorhynchides (Curculionidae) Mostly from Australia. Records South Australian Mus. 4:49-90.

Marshall, G. A. K.

1931. On New Curculionidae from the Pacific Islands. Ann. Mag. Nat. Hist. (X)8:447-456, figs. 1-5.

———

1931. Curculionidae, in Insects of Samoa 4(5):249-346, figs. 1-31. British Mus. (Nat. Hist.)

Pascoe, F. P.

1877. Descriptions of New Genera and Species of New-Zealand Coleoptera.—Part IV. Ann. Mag. Nat. Hist (IV)19:140-147.

1883. Descriptions of Some New Genera and Species of Curculionidae, Mostly Asiatic.—Part II. Ann. Mag. Nat. Hist. (V)12: 88-101.

PERKINS, R. C. L.

1926. Coleoptera, Weevils, in Swezey and Bryan, Insects of Hawaii, Johnston Island and Wake Island. Bishop Mus. Bull. 31: 53-66.

ZIMMERMAN, E. C.

1936. Cryptorrhynchinae of the Austral Islands. Bishop Mus. Occas. Papers 12(17) :1-19, figs. 1-2.

———

1936. Cryptorrhynchinae of Henderson, Pitcairn, and Mangareva Islands. Bishop Mus. Occas. Papers 12(20) :1-8, fig. 1.

———

1936. A Cryptorrhynchid from Marotiri. Bishop Mus. Occas. Papers 12(21) :1-4, fig. 1.

———

1936. Cryptorhynchinae of the Society Islands. Bishop Mus. Occas. Papers 12(23) :1-48, figs. 1-4.

———

1938. Cryptorhynchinae of Rapa. Bishop Mus. Bull. 151:1-75, figs. 1-5, pls. 1-2.

———

1938. The Status of Acalles wilkesii. Proc. Hawaiian Ent. Soc. 10(1) :150-151.

———

1939. Four New Microcryptorhynchus from the New Hebrides and Caroline Islands. Bishop Mus. Occasional Papers 15 (15): 167-173, figs. 1-2.

———

1941. Report on a Collection of Samoan Coleoptera. Bishop Mus. Occas. Papers 16(7) :159-176, fig. 1.

———

1942. Distribution and Origin of Some Eastern Oceanic Insects. American Naturalist 76:280-307, figs. 1-10.

———

1942. Curculionidae of Guam. Bishop Mus. Bull. 172:73-146, fig. 1, pls. 1-7.

1942. New Caledonian Microcryptorhynchus. Bishop Mus. Occas. Papers 17(8):85-89, fig. 1.

1948. Notes on Marianas Islands Curculionidae. Proc. Hawaiian Ent. Soc. 13(2):305-315, figs. 1-2.

1948. Insects of Hawaii 1:1-206, figs. 1-52. Univ. Hawaii Press.

REVIEW OF THE POLISH SPECIES OF THE GENUS RHANTUS DEJEAN (Coleoptera: Dytiscidae)

[Prezeglad krajowych gatunków z rodzaju *Rhantus* DeJean (Coleoptera: Dystiscidae)]. By Kazimierz Galewski (in *Annales Zoologici* (Polaska Akademia Nauk), Vol. 16, No. 17 pp. 223-319, 10 maps, 13 plates. 1957).

This detailed morphological study of the 10 Polish species of *Rhantus* (=*Rantus*) should be useful to workers interested in the central European fauna. The many fine illustrations of structures used in taxonomy make the paper usable even for those who do not read Polish. The distribution of each species is illustrated by a map, and detailed keys for identification are included. The bibliography is extensive, but contains few references to recent works by eastern Europeans. Summaries in Russian and English are appended.

In addition to the morphological and taxonomic portions the ecology of each species is discussed. The author finds that the forms in general are eurytopic, but some show preference for definite types of aquatic situations. *Rhantus suturellus* (Harris)*, for example, prefers acid waters in wooded situations, while *R. bistriatus* (Bergstr.) (= *adspersus* Fabr.) frequents bodies of water in meadows, pastures, and other open areas. *R. incognitus* Sholz is definitely recorded from Europe for the first time. About 40 specimens have been collected since 1952 in the little river Hwezna in the National Park at Bialowieza, and another record is given for Kopanki near Kalusz in the Ukrainian S. S. R. One species, *R. consputus* (Sturm), formerly widely distributed appears to be dying out and has been found in recent years only in Lower Silesia. All but three of the Polish species of *Rhantus* have been found in forests under moss and in litter during the winter months indicating that they hiberate as adults.—FRANK N. YOUNG, *Indiana University*

*This is the continental European usage of this name which according to F. Balfour-Browne (*British Water Beetles*, Vol. II, Ray Society, London, 1950: 235-239) refers to *bistriatus* (Bergstr.) which name is used on the continent to refer to *adspersus* Fabr.

Bibliography

Distribution and Origin of Some Eastern Oceanic Insects
Elwood C. Zimmerman
The American Naturalist, Vol. 76, No. 764. (May - Jun., 1942), pp. 280-307.
Stable URL:
http://links.jstor.org/sici?sici=0003-0147%28194205%2F06%2976%3A764%3C280%3ADAOOSE%3E2.0.CO%3B2-V