

A STUDY OF THE WEEVIL TRIBE CELEUTHETINI
OF THE SOLOMON ISLANDS
(COLEOPTERA: CURCULIONIDAE)

by

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INTRODUCTION

This study is concerned with the genera and species of the tribe Celeuthetini known to occur in the Solomon Islands. The tribe is confined, in the main, to New Guinea and neighboring Islands. With the exception of *Celeuthetes*, the genera and species of Celeuthetini on which this paper is based are endemic to the Solomon Islands. On the basis of collections, *Celeuthetes*, has a wide distribution from Australia to the Moluccas.

The Solomon Islands consist of eleven large islands which form two chains. The northern row of islands are Buka and Bougainville, just south of New Britain, followed by Choiseul, Santa Isabel, and Malaita. The southern group, which essentially parallels the northern row, consists of Vella Lavella, Kolombangara, New Georgia, Russell, Guadalcanal, and San Cristobal.

Bougainville, the largest of the Solomon Islands, has an area of 3,900 square miles, while Guadalcanal, the second largest, is 2,500 square miles in area. The main topographical features of the islands are the 10,000-foot active volcano, Mount Bally, on Bougainville and an 8,000-foot peak on Guadalcanal (map, Fig. 1). The climate is tropical; the average temperature is about 82 degrees Fahrenheit. During the rainy season, from January to March, the temperature and humidity are high. The weather from April to November is fairly cool. In general the climate, flora, and fauna of the Solomon Islands are similar to that of Guadalcanal. The topography, direction of the mountain ranges, and size of the islands have influenced the floral patterns, density of the plant growth, and, to some extent, determined the insect life on each of the islands (Gressitt 1961). The following observations made on the climate and plant life of Guadalcanal may be applicable to the other islands of the Solomon group.

Mr. Robert C. Pendleton, who spent twenty-two months on the Solomon Islands in 1944-45, published his findings on "The Rain Shadow Effect on the Plant Formations of Guadalcanal" (1949). The following excerpts are from this study.

Guadalcanal is well within the true tropic belt and the work of many plant geographers indicates that a rain forest type of vegetation should be expected. However, this island differs in having the major portion of the North Coast covered with coarse grass while a true rain forest vegetation occurs in the south portion and on the mountains.

The main mountain ranges on the island are approximately parallel and occupy a central position. Comprehensive ground studies were made only on the north coastal plain, because travel to other portions was extremely difficult. Guadalcanal is the only island of the group having a mountain chain at right angles to the prevailing wind direction. It is characterized by having a rain forest on the south side and grasslands on the north side of the island. The ecological factors responsible for the grasslands of the island are both climatic and topographic. In the rain shadow insufficient rain falls during several months to support a forest.

This great ecological diversity which prevails in the Solomon Islands, no doubt, accounts for the many species of insects found on the Islands.

Although knowledge of the Celeuthetini has been accumulating since the pioneer contributions of Guérin-Meneville (1841); Wallace (1854-1862); Lacordaire (1861); Pasco (1885); Chevrolat (1885); Faust (1897); Heller (1910, 1934); Gunther (1937); E. C. Zimmerman (1942); and J. L. Gressitt (1966 a & b); the rich insect fauna of the Solomon Islands is still poorly known.

Collecting throughout the year on all areas of the islands will, no doubt, produce many ad-

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ditions to the fauna as well as contribute information concerning the economic importance and life history of the insects. The specimens that have come under my observation have been collected mainly at a few coastal centers on the Solomon Islands.

The monumental study by Sir Guy Marshall (1956) brought order out of a previously disorganized classification of the Celeuthetini. It represents a critical enlargement of the revisional work of Faust (1897). Faust had recognized 31 genera as belonging to the tribe but had failed to discern the generic characters and groupings of the tribe. Marshall pointed out the restricted

range and high endemicity of several of the genera as evidenced by the separation of the 36 species of the old wide-spread genus *Trigonops*. These he considered as confined to the Solomon Islands area.

Several species known to occur on the islands have not been described, since they are represented in collections only by a single specimen. The type material of all new species described in this study have been deposited in the collections from which the specimens came to me by loan. Type specimens are designated and their disposition indicated as a part of each description.

SYSTEMATIC CONSIDERATIONS

The subfamily Otiorrhynchinae,² the broad-nose weevils, as now constituted, is separated into 15 tribes, genera and species many of which are world-wide in their distribution. The tribe Celeuthetini, however, is restricted to the Pacific area, extending from Northern Australia, westward to Java, northward from the Celebes to the Philippine Islands, southeastward to Halmahera, Admiralty, Bismarck, New Britain, New Ireland, Solomon, and New Hebrides Islands. The Philippines and New Guinea seem to be the two focal areas of the tribe since of the 72 known genera 23 are endemic to New Guinea, 10 to the Philippines, and 5 to the Solomon Islands.

The important tribal characteristics of Celeuthetini are rostrum as long or longer than head, robust, bent downward at apex, narrowed in the middle; scrobes angular, well developed, antennae long, scape extending to the anterior portion of the prothorax, funicular club elongate; transverse sulcus separating rostrum from head; elytra not wider than prothorax at base, with shoulders rounded or rectangular; mesepimera much reduced, remote from the base of the elytra; metepisternal suture much abbreviated front coxae more or less separated, except in some very small species; corbels of the hind tibiae placed in a more dorsal position, so that the tarsal cavity is largely, or even entirely concealed when the tibia is viewed on its inner

surface, level of the corbel with its inner edge entirely bare of setae.

The keys to the genera and species are based upon the morphological characters as revealed by careful study of specimen of each species. Since R. M. Heller described many of the species included in this study, it was necessary that specimens from the type series be made available. Through the kindness of Dr. Gotz cotype specimens of all of Heller's species were loaned to me and proved to be invaluable for making comparisons and drawings. As a result specimens of 43 of the species have been studied, 23 of which were designated as *Typus* specimens. A *Typus* (sic) specimen of the distinctive species *Atactophysis cordata* Hllr., rare in collections and unknown to Sir Guy Marshall, was made available to me. The *Typus* specimen is labeled Solomo Ins. T. Bodecker. No other specimens have been observed. A drawing of the *Typus* specimen is included in this study.

Great care has been taken to have the drawings represent the correct proportions of the insect structures as well as the vesture. A drawing of the insect in toto illustrating the rostral shape and sculpturing, along with that of the eyes, antennae, prothorax, and elytra will supplement and clarify the accompanying descriptions. A description is a subjective appraisal of the objective material on the part of the author, which is oft-times brief and minus important at-

²Recently it has been proposed, because of priority, that this subfamily be known as Brachyrhininae. See *Coleopterorum Catalogus* pars 160:290-315 for a listing of the tribes.

tributes of the object. A good drawing, therefore, is more objective and thus is an important supplement to an insect description.

Similarity of genitalia was noted after many species had been studied. Therefore, illustrations of female and male genitalia of only *Trigonops becki* and *T. platessa* are provided as representative of the species of this genus. A widely debated subject today among entomologists is that of species classification. In order to justify the efforts put forth in this study I wish to present the following point of view as it relates to the procedures and proposals of this study. Systematic workers acquainted with the theory and practice of present-day systematic zoology will admit that to continue to describe new species, as some have done in the past, is only to add to the great number of partially known "species" with which taxonomic literature is encumbered. The solution, however, would seem not to go to the extreme and abandon the "species level" activity as suggested by Oldroyd, (1966). Man's knowledge of the animate world is largely due to the results of past practices of segregating, describing, and naming of species. As a result much progress has been made in the categorization of plants and animals. It is granted that some past species taxonomy is inadequate since it is based upon a meager description of a single type-specimen. Presently the refinement of naming a new species is based upon an analysis of a number of specimens, as to internal as well as external morphology, along with data on habitat, life history, distribution, and food habits. A description based upon the above, and accompanied by drawings, conveys information on an objective basis. It makes possible the recording of minute details, which are free from those difficulties which are present in the verbal description. This has been the attempted approach in dealing with the species of this study.

The Celeuthetini are restricted to the oceanic Pacific Islands, as pointed out above, and since so little is known about the insect fauna of the New Guinea-Solomon Islands area (Gressitt, 1961), studies following Marshall (1956), should aid in pointing up the endemicity and distribution of this tribe.

A study of the origin of the insect fauna of the Solomon Islands presents many interesting and difficult problems. The origin of the fauna is closely associated with the origin of the islands. Recently much interest has been manifest in the different theories of continental drift. Darlington (1965) is of the opinion "that the southern continents have drifted." Additional research, how-

ever, must be carried on before the picture of the past relationship of the Solomon Islands with the surrounding island complex is clarified. Along with additional knowledge as to the age and origin of the islands must be added information dealing with the geology, geography, climate, ecology, and a more complete sampling of the islands insect fauna. More intensive collecting, especially in the interior of the larger islands, will, no doubt, extend the range of presently known species, as well as result in the discovery of many new ones. As an example we may cite Gressitt's (1966) paper dealing with the Papuan weevil genus *Gymnopholus* (Leplopiinae) which points up the possibilities of intensive collecting on the mountainous areas of the islands. Prior to Gressitt's study only 14 species were consigned to *Gymnopholus*. Collecting at high altitudes on the northeast interior of New Guinea resulted in his adding 32 new species to the genus.

The faunal relationships of insects, amphibians and reptiles of the Solomon Islands and of New Guinea suggest that at an early geological period these islands were connected. It has also been pointed out by Marshall (1956) and students of the reptiles that there is a faunal relationship among species found in the Solomons, the northern islands, and Asian mainland. The accumulated information on the origin and phylogeny of the fauna of these oceanic islands indicates that it is predominately Oriental.

The following recent report on the "Paleogeography of the Tropical Pacific" by Menard and Hamilton (1961) supports the belief that many of the islands are oceanic:

The oldest known fossil fauna from the Pacific Basin is the Middle Cretaceous reef coral-rudistid fauna from the flat tops of seamounts in the Mid-Pacific Mountains. A number of other localities have been dated as early and late Eocene. There are enough of these dates to indicate that the present topography or ridge, seamounts, and islands probably originated during and after the Cretaceous. The evidence indicates that there were never any sunken continents in the area, but the ideas concerning animal migration by island stepping-stones (between present and former islands) appear to be more and more valid.

The fact that many of the islands are continental while others are oceanic, that some are geologically much older, also, that some have been separated or isolated and surrounded by deep water for longer periods of time, and that climatic and ecological conditions are different on many of the islands, present conditions that

have influenced the rate of evolution, survival, and dispersal of the species of the respective islands. Too little is now known about the rich insect fauna of the Solomon Islands. In this paper 25 species of *Trigonops* are discussed, and of this number 7 are known to occur on Bougainville, and 6 are known from Guadalcanal.

This study has revealed that much more collecting and association of the specimens with

their host plants along with the gathering of ecological information is necessary before conclusions as to the extent of the fauna and its economic importance will be available. A program of this nature will necessitate segregation of the specimens into groups or species and the designation by some symbol or name of each group if we are to deal intelligently with the specimens of this tribe.

ACKNOWLEDGMENT

This study was possible only because of the suggestions, cooperation, and specimen material made available by the late Sir Guy Marshall of the British Museum of Natural History, Herrn Dr. Wilhelm Gotz of the Dresden Museum, and Dr. J. L. Gressitt of the Bishop Museum, Honolulu. Marshall made available specimens of *Trigonops* from the British Museum collection and also determined and made comments on 21 species belonging to the tribe Celeuthetini which I sent to him from the Brigham Young University Collection. My association with him at the British Museum in 1957 was most rewarding. I also wish to thank E. China, R. T. Thompson, and J.P. Doncaster, personnel of the British Museum, who have been patient with the return of museum specimens. Dr. Gotz loaned cotypes of species of *Trigonops*, *Kietana*, *Atactophysis*, *Colposternum* and *Hoplotrigonops* described by Dr. K. M. Keller, and cotypes of four species of *Platyacus* described by J. Faust. I am grateful to these entomologists and staff members for their aid rendered in this project.

I also extend my thanks to J. L. Gressitt, Chairman of the Entomological Staff, Bishop Museum, for a loan of specimens which he collected in the Solomon Islands. Thanks is also due Mr. Hugh B. Leech, Curator of Insects, California Academy of Sciences, San Francisco, and Mrs. Rose Ella Spilman, U. S. National Museum for a loan of specimens of the genus *Trigonops*.

I wish to thank Dr. Carl H. Lindroth of the Department of Entomology, Zoological Institute, University of Lund, Sweden, who interceded in my behalf for a loan of specimens of Celeuthetini from Herrn Dr. Wilhelm Gotz. The aid and

help that came through the loan of type specimens and the cooperation of the personnel of the Dresden Museum is greatly appreciated.

To the late Dr. D Elden Beck, Professor Ernest Reimschuessel, the late Harry P. Chandler, and Dorald Taylor, who were stationed on Guadalcanal and Morotai Islands in 1944 and 1945, as personnel of the United States armed forces, I express my appreciation and thanks for the results of their collecting efforts. They sent to the Brigham Young University, their alma mater, thousands of insect specimens.

I must thank Professor J. Reuben Clark III, Miss Alberta Jacobs of the Classical Language Department, Mr. Kenneth Larson and Gundi Alt of the Zoology and Entomology Department of the Brigham Young University, for their assistance in the translation of some foreign literature.

Finally, I greatly appreciate the ability and cooperation of Professor L. Douglas Hill of the English Department of the Brigham Young University, my artist, who has been so careful and accurate in the execution of the drawings that illustrate the species of this paper. The illustrations accompanying the descriptions of the 45 species dealt with in this study should add to further understanding of the Celeuthetini fauna of the Solomon Islands up to this date. Thanks is also due Dr. H. Tracy Hall and Dr. Lane Compton of the research division of the University for their cooperation in supplying funds for some of the art work of this project. I also extend my thanks to the members of the Editorial Board for the cooperation and financial aid in the publication of this study

KEY TO THE GENERA OF CELEUTHETINI FOUND ON THE SOLOMON ISLANDS

1. (2) Rostrum abruptly declivious dorsally at the apex.
2. (3) Elytra often granulate but without conical tubercles.
3. (4) Tibiae not carinate dorsally.
4. (22) Elytra with more than ten striae, sometimes confused.
5. (7) Rostrum with the basal sulcus broadly interrupted in the middle the rostrum being there continuous with the frons.
6. (5) Head constricted behind the eyes; mentum sessile, prothorax granulate; elytra indistinctly striate, rather densely granulate (Bougainville Is.) *Zeugorrhinus* Marshall
7. (8) Rostrum with the basal sulcus not interrupted.
8. (9) Front tibiae not denticulate.
9. (10) Joint 2 of the funicle, not or but slightly longer than 1.
10. (16) Mesosternal process longer than the shortest distance between the coxae.
11. (12) Rostrum dilated apically.
12. (13) Funicle stout, widest at the base narrowing distally; eyes nearly flat, not projecting beyond the temples, mentum with only two setae; stria 12 on the elytra abbreviated; front coxae in the middle of the prosternum (Solomon Isl.) *Kietana* Heller
13. (12) Funicle slender, not narrowing distally; eyes convex, projecting.
14. (15) Mentum with four or more setae; front coxae in the middle of the prosternum; stria 12 abbreviated.
15. (16) Rostrum with the dorsal area shallowly excised, the narrowest part two to three times as wide as the apex of the scape, the declivity without scales or a dorsal elevation (New Guinea, Solomon Islands) *Celeuthetes* Schonh
16. (10) Mesosternal process as broad as long or broader than long.
17. (18) Front coxae nearer to the front margin of the prosternum; metasternum shorter than a median coxa.
18. (21) Rostrum with the basal sulcus not produced downward in front of the eyes.
19. (20) Prothorax with the basal margin elevated; elytra cordate flattened; metasternum with the deep rugose depression on each side. (Solomon Isl.) *Atactophysis* Heller
20. (19) Prothorax with the base not elevated; elytra ovate, convex, metasternum without depressions.
21. (18) Rostrum with the basal sulcus produced downward in front of the eyes.
22. (4) Elytra with ten regular striae, but the tenth often abbreviated.
23. (28) All of the femora with one or more small teeth; mesosternal process transverse.
24. (25) Front margin of prosternum sinuate; rostrum distinctly longer than broad; frons very steep, nearly vertical, its width less than the length of an eye.

eyes directed obliquely forward; with only four visible ventrites. (Solomon Isl.) *Platyacus* Faust

25. (23) Femora without teeth.

26. (27) Mesosternal process much broader than long.

27. (28) Declivity rostrum squamose.

28. (29) Funicle with joint 2 not longer than 1.

29. (33) Eyes more or less conical, highest behind the middle mostly very strongly produced. Elytra with stria 10 approaching very closely to 9, the punctures comparatively larger in the basal, third, much smaller behind; five visible ventrites, ventrites 3 and 4 narrow in width (Solomons) *Trigonops* Guerin

GENUS *ZEUGORRHINUS* MSHL. (1956)

Marshall, The Otiorrhynchine Curculionidae of the tribe Celeuthetini (Col.), 1956, p. 28, British Museum, London

Fig. 2

Marshall based the genus *Zeugorrhinus* on a species collected at Kieta, Bougainville Islands, in 1937 (J. L. Fraggott). As far as the writer is aware, *granulatus* is the only species now assigned to the genus. No specimens of this species have been available for study. Marshall indicates that this taxon is most nearly allied to *Elytrocheilus* Fst., consisting of some 20 species which are mainly found on New Guinea, Louisiade Archipelago and Woodlark Islands. An examination of several specimens of *Elytrocheilus confinis* Fst. from Oro Bay, New Guinea collected by Harry P. Chandler, 1944, confirms Marshall's statement as to the characteristics of the genus *Elytrocheilus*; "the basal sulcus of the rostrum is complete; the head is not constricted behind the eyes; the prothorax is vertically truncate at the apex; the elytra are strongly carinate at the base; and the mesosternal process is somewhat transverse and almost parallel-sided." *Zeugorrhinus* is characterized as follows: "the head constricted behind the eyes, separated from the rostrum by a deep sulcus which is rather broadly interrupted in the middle but is continuous downward laterally at apex, the basal margin finely carinate. Mesothoracic process narrowly triangular much longer than broad."

A good illustration of *Z. granulatus* Mshl. contained in Marshall's paper is here reproduced for the convenience of those interested in the Celeuthetini of the Solomon Islands.

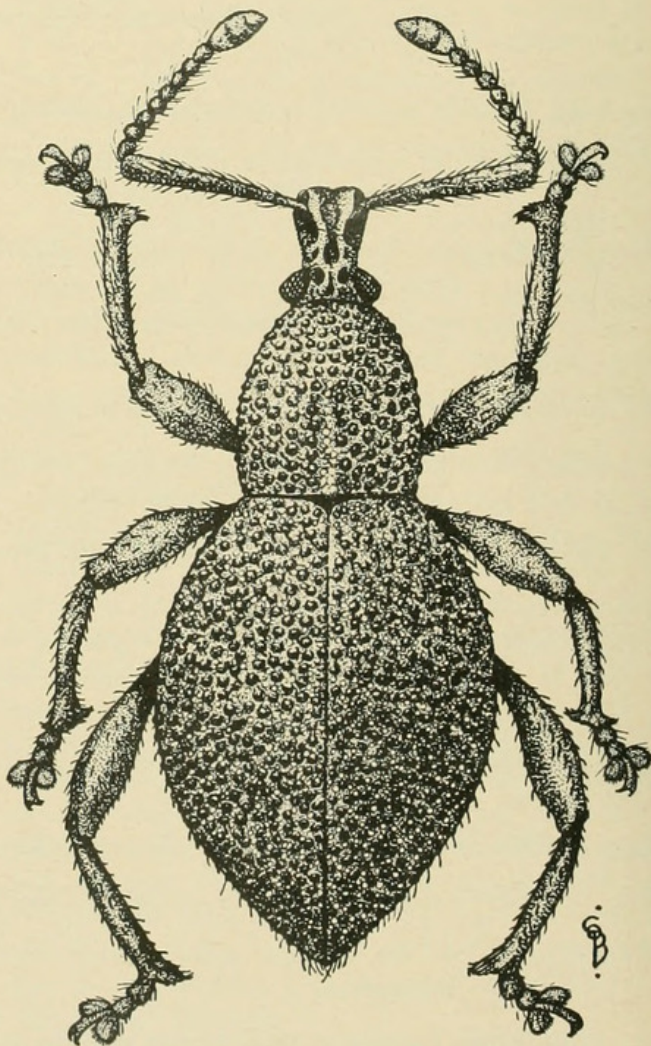


Fig. 2. *Zeugorrhinus granulatus* Mshl. - ♀

GENUS KIETANA HELLER (1910)

Heller, Wien. Ent. Zeit., XXIX, 1910, p. 195
 Marshall, The tribe Celeuthetini, 1956, p. 38

This genus may be characterized as follows:

Head level with rostrum, separated from it by a deep curved sulcus; rostrum longer than broad, dilated at genae, apical declivity devoid of scales, dorsum with two carinae and an eleva-

tion at the top of declivity. Antennae scape stout, rugosely punctuate and parallel sides; funicle stout at base and narrowing distally, joints 1 and 2 equal. *Prothorax* about as long as broad, granulate, not constructed at apex. *Elytra* broadly ovate, with 12 striae, twelfth abbreviated. *Legs*, with femora moderately clavate, hind pair not reaching apex of elytra. Prosternum with coxae in middle and contiguous; ventrite 2 longer than 3 and 4, 1 and 2 granulated laterally.

Key to Species of KIETANA HELLER

Marshall, 1956, p. 38

1. (7) Funicle with joints 4-6 transverse or not longer than broad.
2. (3) Setae on the elytra and declivity spatulate and recumbent; prothorax with kidney-shaped granules (Bougainville Is.) size 9.8 mm in length-4 mm in breadth. Fig. 3 *episomoides* Hllr.
3. (2) Setae on declivity of the elytra not spatulate, longer, stouter erect or suberect.
4. (5) Prothorax without punctures, the granules dense and simply convex; elytra with the indistinct granules in the striae of about the same size as those on the intervals (Russel Is.) size 5.5-8.0 mm., in length-2.5-4.0 mm in breadth *tessellata* Mshl.
5. (4) Prothorax long, feebly rounded laterally, disc flat longitudinally, granules lunate due to a lateral puncture from which a small brown setae issues, granules in the striae about the same size as those on the intervals. (Gualdocalanal Is.) size 8.9-9.1 mm., in length-4.0 mm in breadth. Fig. 4 *gressitti* n. sp.
6. (5) Prothorax distinctly rounded laterally, disc elevated near base slopping toward the apex; discal granules large, lunate owing to a large puncture on the inner side of each; granules in the striae much smaller than those on the intervals (Isabel Is.) size 8.0 mm in length-3.8 mm in breadth *isabellae* Mshl.
7. (1) Funicle with all joints distinctly longer than broad; discal granules on pronotum lunate; setae on the elytra subrecumbent (Shortland Is.) size 8-10 mm in length-3.7-4.8 mm in breadth *aluensis* Mshl.

Kietana episomoides Heller
 Wien. Ent. Zeit. 39: 195, 1910.

Fig. 3

The following description was made from one cotype specimen kindly loaned by Dr. Wilhelm Gotz of the Dresden Museum.

Derm black, with white scales; pronotum with narrow median stripe of denser scales; elytra with scales grouped between large granules on intervals. *Head* slightly punctuate up to vertex, frons convex, eyes obovate, slightly convex. *Rostrum* stout and not so roughly punctuate as in some other species of *Kietana*; lateral and angular area with long white setae. *Antennae* scape

parallel-sided, widening slightly from base to apex; funicle joints 1-2-3-7 equal in length; joints 4-5-6 smaller and equal, with long brown setae. *Prothorax* slightly longer than broad, gently rounded, laterally, widest at middle; dorsum feebly convex longitudinally, granules on disc lunate due to a puncture on the inner side of each one; each bearing a spatulate recumbent white seta. *Elytra* ovate, longer than broad, widest at apical third, declivity abrupt, with long flat setae, disc flat with large granules irregularly placed along intervals making wavy arrangement, seta issuing from side of granule, small granules along stria, and with scales between shining granules. *Legs*, femora and tibia red-

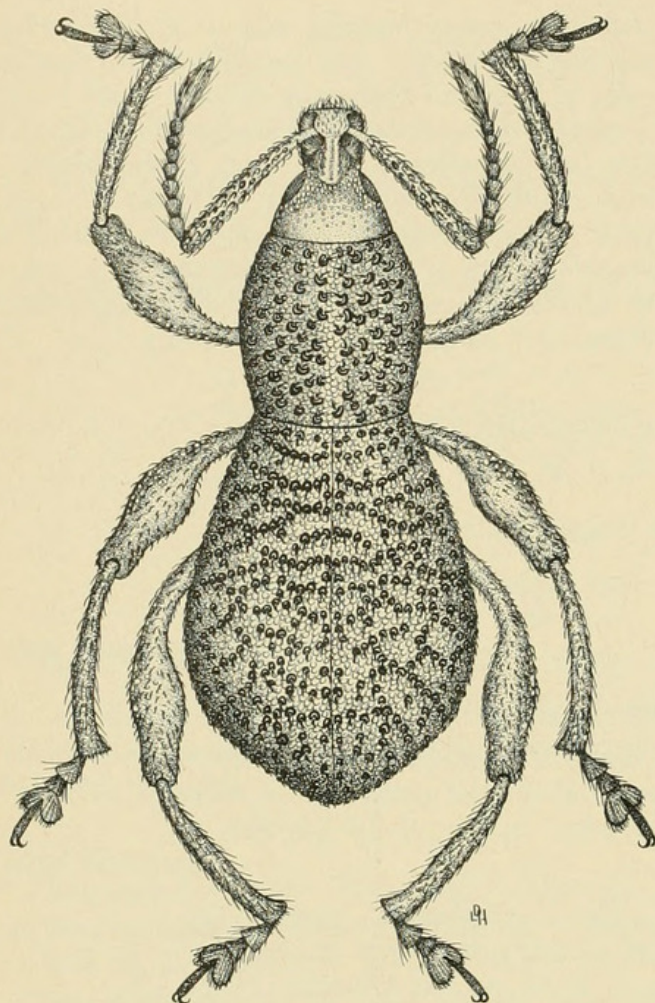


Fig. 3. *Kietana episomoides* Hllr.

brown clothed with white scales and setae, tarsi black; ventral area and ventrites with white scales and setae.

Length 9.8 mm; breadth 4 mm.

Type locality: Bougainville, Kieta (Dr. Schlaginhaufen) 1908-5 *typus*, 1908-5 Staatl. Museum für Tierkunde, Dresden.

Kietana gressitti n. sp.

Fig. 4

Derm black with small pale greenish scales, pronotum with a narrow median strip of scales; elytra, legs, and ventral surface with small groups of green scales.

Head rugose with small punctures on apical portions of frons, diminishing toward base; eyes large, slightly convex, lateral and in contact with rostral suture; rostrum longer than head, dilated at genae, dorsum and apical declivity punctuate, with a slight elevation and fovea at junction of two carinae and declivity. *Antennae* scape widening gradually from base to apex, punctures deep, clothed with long recumbent brownish setae and

a few green scales; scape reaching the anterior two-fifths of prothorax; funicle slightly longer than scape, all segments pyriform, 1 a little larger than 2. *Prothorax* longer than head and rostrum combined; widest at middle, sides practically parallel; truncate at base and apex; disc convex, highest in middle, sloping to apex and base, closely set with rounded granules, from one side of which issues a small brown seta, giving granules a lunate appearance, green scales sparsely placed between granules, median area more heavily covered with scales. *Elytra* broadly ovate, widest behind middle, dorsum convex highest before middle, punctures in striae, granules in main, along intervals, some small ones in striae paths; small brown setae arise from side of granules; some scales between granules of intervals; setae long, brownish and recumbent on precipitous declivity. Underside, prosternum, mesosternum, metasternum, ventrites 1 and 2 sparsely clothed with green scales and short, white setae.

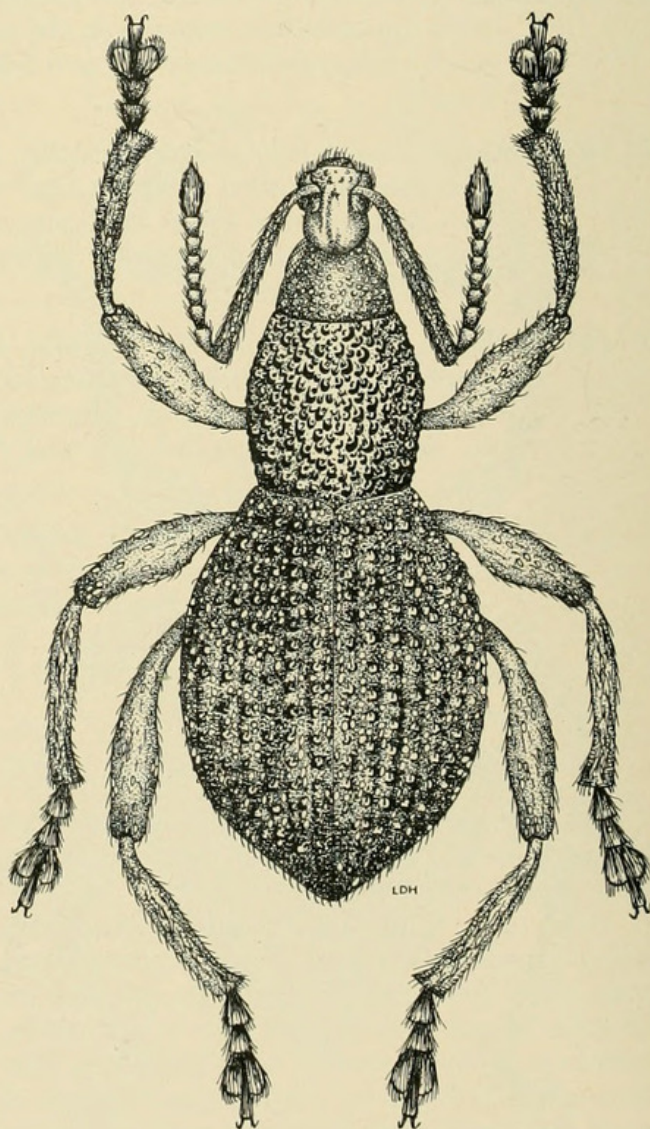


Fig. 4. *Kietana gressitti* n. sp.

Legs, femora, tibia, and coxa reddish-brown, tarsus black with white recumbent setae.

Length 8.0–8.1 mm.; breadth 4.0 mm.

Type locality: Solomon Islands: Holotype Guadalcanal, Gold Ridge, 500 M. June 24, 1956, (J. L. Gressitt). One paratype, same data as the Holotype; one paratype Guadalcanal Is. Gold Ridge, March 21, 1955, E. S. Brown. Holotype, deposited in the Entomological Collection Bishop Museum, Honolulu, Hawaii; one paratype in the Entomological Collection, British Museum of Natural History, London; and one paratype in the Entomological Collection, Brigham Young University, Provo, Utah.

Remarks: The species *gressitti* is black with a narrow prothorax, similar in shape to that of *tessellata*, but is larger, with green scales, and more deep punctures on the dorsal area of the rostral declivity. *K. aluensis* in contrast to *gressitti* has a more rugose and rounded prothorax, and is larger with conspicuous white scales on body and legs. The rostral carina and elevation at top of the declivity is distinctive in each of these species.

GENUS CELEUTHETES SCHONH.

Schöenheer. Gen. Spec. Curc. VII, 1, 1843, p. 250.

Rostrum as long as the head, robust, abruptly declivous dorsally at apex; declivity without scales or a dorsal elevation, scrobes deep, triangular, dorsal area shallowly excised, narrowest part two to three times as wide as apex of scape. *Antennae* submedium, rather long and slightly robust, scaled and with setae; scape subcylindrical, straight except for slight arch at base; funicle segments 1-2 elongate, 1 longer than 2, 3-5 subpyriform, 6-7 subglobular, club oval. *Eyes* rather large, round, protruding. Prothorax subcylindrical, slightly rounded at sides; truncate at apex and base. Elytra short and moderately rounded; concave dorsally in ♂ or regularly convex in ♀. Elytra not wider than prothorax at base, with shoulders rounded or rectangular; often granular, but without conical tubercles. Mesosternal process longer than shortest distance between coxae. Corbel of posterior legs cavernous and claws on tarsus free.

Celeuthetes paganus Gyll

Gyllenhal in Schönh. Gen. Spec. Circ. II, 2, 1834, p. 539.

Fig. 5

Derm reddish black, with small white scales and setae which arise from small polished granules.

Head and rostrum as long as prothorax; *rostrum* with a furrow, narrowest part three times as wide as apex of scape, declivity without scales or a dorsal elevation; a small fovea at base of rostral groove; rostral sulcus extending laterally and forward to anterior margin of eyes; rostrum two-thirds as long as head. *Antennae* scape slightly bowed, same diameter throughout, extending to anterior one-third of prothorax; segments 1-2 of funicle as long as 3-6; segments 3-7 globoid, eyes large, round, flattish and placed well down on lateral portion of head. Prothorax as long as wide; apex slightly concave, base truncate, trans-

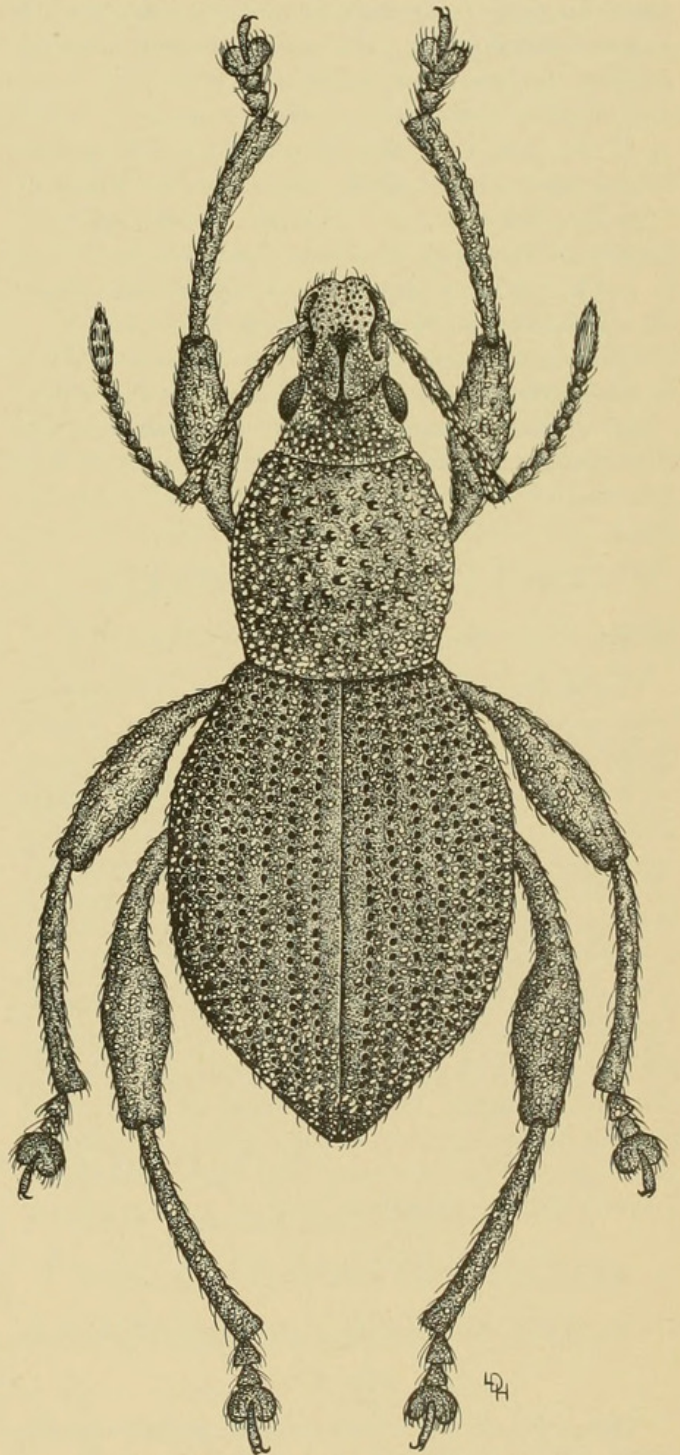


Fig. 5. *Celeuthetes paganus* Gyll.

versely convex, widest at middle, disc and lateral portions granulate and punctate. *Elytra* widest at middle, one-fourth longer than wide, stria 12 abbreviated; intervals on disc twice as wide as striae, interval 6 units just back of humerus with 5 and 7 forming a low obscure carina, (there is also a union of these intervals at the declivity which results in forming a low keel which extends to the apex) shallow closely set punctures in striae, small shining granules with decumbent setae on intervals, scales and setae abundant on declivity down to apex. *Legs* reddish, thickly covered with white scales and setae. Prothoracic coxae large and narrowly separated, ventrites 1-2 rugose laterally free from punctures and setae in middle; 3-5 free from scales and setae.

Length 7.8 mm; breadth 3.2 mm.

Type locality: Santa Cruz Islands, Vanikora Island. Specimen studied: One from the Solomon Islands, Guadalcanal, Teneru River, (D. E. Beck), 1944. Bougainville Is. 2 specimens, June 5, 1944, (A. B. Gurney); two specimens, June 30, 1956, Simba Mission (E. J. Ford, Jr.).

The species assigned to *Celeuthetes* are widely distributed from Australia to New Hebrides, New Guinea, Bismarck, and Solomon Islands. The species *paganus* is the only member of this genus thus far reported from the Solomon Islands.

GENUS *ATACTOPHYSIS* HELLER

Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 9.

Body depressed, with few scales, *rostrum* as long as wide, dorsal without keel, basal sulcus deep and crescent shaped, eyes not in contact with rostrum, due to deep sulcus. *Antennae* scape cylindrical, straight, apically knot shaped; not extending to middle of prothorax, segments 1-2 of funicle elongate; equal in length to segments 3-5 combined; club as long as segments 5-7 combined. *Prothorax* as wide as long, base and apex truncate, convex transversely; with median longitudinal elevation and shallow close set punctures. *Elytra* with eleven striae, depressed, heart-shaped, humerus equal to base of prothorax, sloping from base to obtuse point, in contact with coxa of metathoracic leg, apex acuminate. Femora extending slightly beyond apex of elytra.

ATACTOPHYSIS *CORDATA* HELLER

Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 9.

Fig. 6

Derm black with bluish-white scales, sparse white setae, prothorax finely punctate, elytra

with rows of granules between interspaces.

Head as long as rostrum, vertex rugose; rostral sulcus deep, crescent shape; antennae scape narrow, except at apex, practically devoid of scales and setae, funicle segments 1-2 as long as 3-5, club as long as 5-7; funicle devoid of any vestiture; rostral base broad with deep punctures, no carina, but with a slight elevation at rostral declivity, scrobes large, separated dorsally by about width of apex of scape. *Eyes* lateral, round, flattish and contiguous with rostral sulcus. *Prothorax* greater in breadth than length; base and apex truncate, disc convex transversely punctures shallow and irregular in placement; low median carina, a few white scales on lateral margin, body scales denuded, except for a few scattered bluish and white ones. *Elytra* 4 mm in width at base, 7 mm in greatest width and 7.6 mm in length; disc flat, heart-shaped; striae consisting of shallow punctures and rows of small polished granules. The 11 intervals smooth, on discal area practically free of scales; posterior margin emarginate, gentle slope at declivity, covered with more scales and deeper punctures; anterior lateral margin of metathorax impressed and with deep punctures, lateral margin of elytra in contact with coxa of metathorax leg. *Legs* elongate, prothoracic very narrowly separated; metathoracic coxa widely separated. Ventrites 1-2 rugose laterally with fine wavy lines in medial area, 5 greater in width than 3-4 combined.

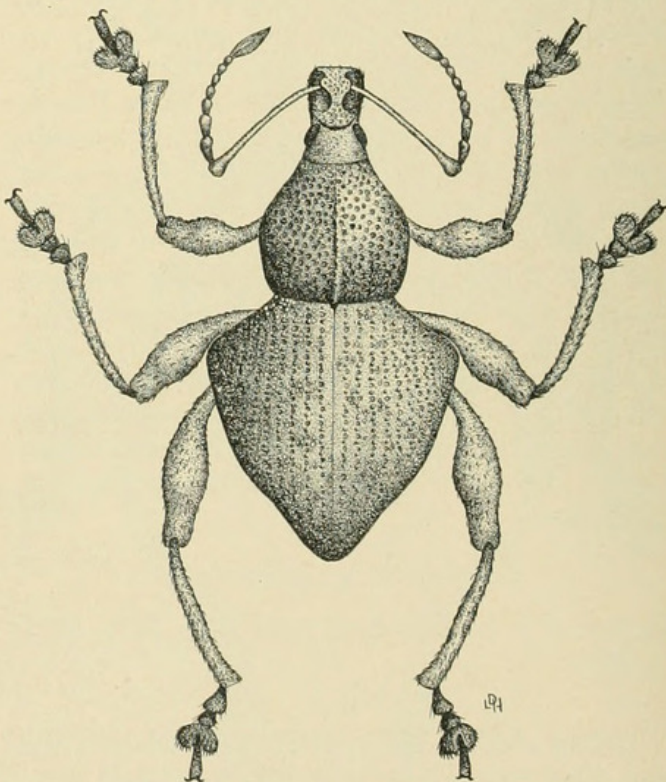


Fig. 6. *Atactophysis cordata* Hllr.

Length 13.5 mm; breadth 7 mm.

Type locality: Solomon Islands (T. Bödecker) *Typhus*, Statl. Museum für Tierkunde, Dresden.

The genus *Atatophysis* is characterized by its elytra which are flattened and heart-shaped. It is widest where the lateral margin of the elytra comes in contact with the coxa of the metathoracic leg. The 11 striae, the rows of small, polished granules, the smooth intervals, shallow punctures and acuminate apex of the elytra, along with the deep rostral sulcus, deep punctures on the base of the rostrum, slender scape of the antennae, and the flat eyes which come in contact with the lateral extension of the rostral suture are all outstanding characters. I have been unable to compare this genus with *Atactus* because of the lack of correctly determined specimens.

GENUS PLATYACUS FAUST (1897)

Platyacus Faust, 1897, Stett. Ent., Zeit. 58: 236, 270

Colposternum Heller, 1910, Wien., Ent. Zeit. 29: 191

Hoplotrigonops Heller, 1934, Verh. Naturf. Ges. Basel 45:21

This genus, peculiar to the Solomon Islands, is characterized by the presence of several small teeth on the femora, a distinct modification of the fourth ventrite, (Figs. 1-4), a sinuation of the front margin of the prosternum, the steep frontal part of the head, with the eyes closely approximate, and a long slender rostrum with an elevated straight keel.

Through the kindness of Dr. Wilhelm Gotz of the Dresden Museum I have seen cotype specimens of *Platyacus subalatus* (Hllr.); *P. laticollis* Hllr.; *P. malachiticus* Hllr.; *P. nigrocristatus* Hllr.; *P. decoratus* Fst.; *P. websteri* Fst.; *Hypotactus ruralis* (Fst.); *H. papillatus* (Fst.); *H. novobritannicus* var. *suturalis* Hllr.; and *Paratactus carbunculus* Hllr.

Drawings have been made of all the species

of *Platyacus* as listed above, also of *Hypotactus ruralis*, *papillatus*, and *novobritannicus* var. *suturalis* Hllr., and *Paratactus carbunculus* Hllr.

Both Faust and Heller were not sure as to the generic characters of some of the species of this complex. Marshall's analysis of the genera *Platyacus*, *Colposternum*, and *Hoplotrigonops* resulted in his concluding that the two latter ones were synonyms of *Platyacus*.

He also observed that the two Faust species *Platyacus ruralis* and *papillatus* were not congeneric with the genotype of *Platyacus* (*websteri* Fst). "They differ from *Platyacus* in the much shorter rostrum, the truncate (not sinuate) front margin of the prosternum, the gently sloping frons, the width of which is as great as, or greater than, the length of an eye, and the more lateral position of the eyes. The female has only four visible ventrites." Marshall thus erected the genus *Hypotactus* for these two species. I have concluded, from my study that *P. novobritannicus* var. *suturalis* Hllr. also belongs in *Hypotactus*.

The species of *Platyacus* are, at this stage of our knowledge, recorded only from the Solomon Islands, while species of *Hypotactus* have been reported only from the Bismarck Archipelago. The cotype specimen *Hypotactus novobritannicus* var. *suturalis* Hllr. bears a locality label "N. Pommern" now known as New Britain. The other two species *ruralis* and *papillatus* are also from New Britain.

This leaves the species *carbunculus* Hllr. which does not belong in *Platyacus*, but has been assigned to *Paratactus* by Marshall.

This study is concerned only with the celeuthetini of the Solomon Islands; but since *Hypotactus ruralis*, *papillatus* and var. *suturalis* and *Paratactus carbunculus* have been dealt with as species of *Platyacus* or in genera now considered as synonyms of *Platyacus* and since they are not well represented in most entomological collections, drawings of cotypes from the Dresden Museum are included. It is my belief that illustrations of rare species will be an aid in future studies of the weevils of the Solomon Islands.

KEY TO THE SPECIES OF PLATYACUS

Sir Guy Marshall's Key to the species of *Platyacus*. Marshall notes that the species *subalatus* and *laticollis* of this Key were known to him from the description only.

1. (4) Prosternum with a projecting tooth on each side of the apical sinuation.
2. (3) Elytra with the dorse-lateral margin raised into a comb-like ridge in the middle two-thirds, the intervals without granules; funicle longer than the scape (Bougainville I.) Fig. 7. *subalatus* Hllr.

3. (2) Elytra without such a ridge, the intervals granulate; funicle shorter than the scape (Bougainville I.) Figs. 8, 14 *laticollis* Hllr.
4. (1) Prosternum without teeth on the front margin.
5. (20) Rostrum slightly widening apically, or at least parallel-sided, the scrobes comparatively large, ill-defined behind, the narrowest space between them not wider than a scape.
6. (7) Elytra with a distinct callus on intervals 4 at the top of the declivity, the apical lateral margin deeply excised in ♀ (Kolombangara I.) Figs. 9, 14 *kolombangarae* Mshl.
7. (6) Elytra with no posterior callus in interval 4, the apical lateral margin straight or shallowly sinuate.
8. (11) Elytra with a callus or short ridge at the top of the declivity on interval 5.
9. (10) Prothorax rounded laterally, flattened on the disk; tibiae with a fine dorsal carina on the basal half; tarsi with joint 2 transverse; elevations on interval 5 of the elytra without suberect black setae; length 6.0–7.5 mm. (Bougainville I.) Fig. 10 *malachiticus* Hllr.
10. (9) Prothorax parallel-sided in the basal half, transversely convex on the disk; tibiae without any dorsal carinae, tarsi with point 2 somewhat longer than broad; elevations on the elytra with short black suberect setae; length 4.5–5.0 mm. (Bougainville I.) Fig. 11 *nigrocristatus* Hllr.
11. (8) Elytra without any trace of a callus or ridge on interval 5.
12. (19) Scape rapidly widened close to the base and then parallel-sided to the apex, compressed, with the lower edge sharply carinate.
13. (14) Elytra with bands of yellowish-green scales; a complete, basal band which emits three backward elongations along the suture and the sixth intervals, a much shorter band behind the middle extending to stria 4 and broadly interrupted at the suture, and a band covering the whole apical area except the suture; scape narrower and dilated apically (Isabel I.) Figs. 12, 14 *decoratus* Fst.
14. (13) Elytra without bands, the green or yellowish scales more generally distributed; scape thicker, almost parallel-sided from near the base to the apex.
15. (16) Elytra with the scales sharply confined to the intervals, the bare striae (as broad as the intervals) appearing like black stripes; ventrite 4 of ♀ with the processes at the external apical angles only half as long as the median process (Alu I.) Fig. 13 *websteri* Fst.
16. (15) Elytra with the green scales covering the septa between the punctures in the striae, the bare punctures producing a tessellated effect, with no sign of stripes; ventrite 4 of ♀ with the external apical processes nearly as long as the median process.
17. (18) Prothorax rounded laterally (Florida I., Giza I.) Fig. 15 *leveri* Mshl.
18. (17) Prothorax parallel-sided in the basal half (Fauro I.) *fauronus* Mshl.
19. (12) Scape more slender, gradually widening from base to apex, not compressed, nor carinate on the lower edge (Bougainville I.) Fig. 14 *minor* Mshl.
20. (5) Rostrum gradually narrowing from base to apex, the scrobes small, ovate, sharply delimited behind, the space between them much wider than a scape (Bougainville I.) *narinus* Mshl.

Platyacus subalatus Hllr.

Heller, Wien. Ent. Zeit. XXIX, 1910, p. 194

Fig. 7

Derm black, except the proximal portions of the femora which are red, with small green and white scales, irregularly and sparsely placed on dorsum of body, antennae and femora.

Rostrum much longer than head, parallel-sided dorsum narrow, carina with small elevation at top of declivity; separated from head by sulcus which extends lateral and anteriorly to scrobes; antennae long, funicle reaching middle of prothorax bowed slightly, same diameter throughout, except for rounded distal end, funi-

cle segments all elongate. *Prothorax*, prosternum with a projecting tooth on each side of apical sinuation, wider than long, widest posterior of middle, truncate at base and apex, slight constriction at apex; disc flat, rugose, with varying-sized granules, no punctures or setae, no marked median area, and few small scales. *Elytra* with dorso-lateral margin raised into a comblike ridge in middle two-thirds, intervals without granules, striae punctured, short white setae at apex. *Legs*, femora red in color on proximal and club areas, reaching just beyond apex of elytra and with small tooth on each femora. Tibia straight with long white setae. Ventral body and ventrites devoid of scales, ventrites with short suberect setae, ventrite 5 longer than 3-4.

Length 9.8 mm; breadth 5.2 mm.

Type locality: Bougainville Island-Kieta. The above description was made from the following specimen: Bougainville - Kieta (Dr. Schläglinhaufen), 1908-5; Typus, Staatl. Museum für Tierkunde, Dresden. Other specimens studied: Solomon Islands: Bougainville Islands, Kokure, Nr. Crown Prince Ra, 900 M. VI-8 1956 (J. L. Gressitt).

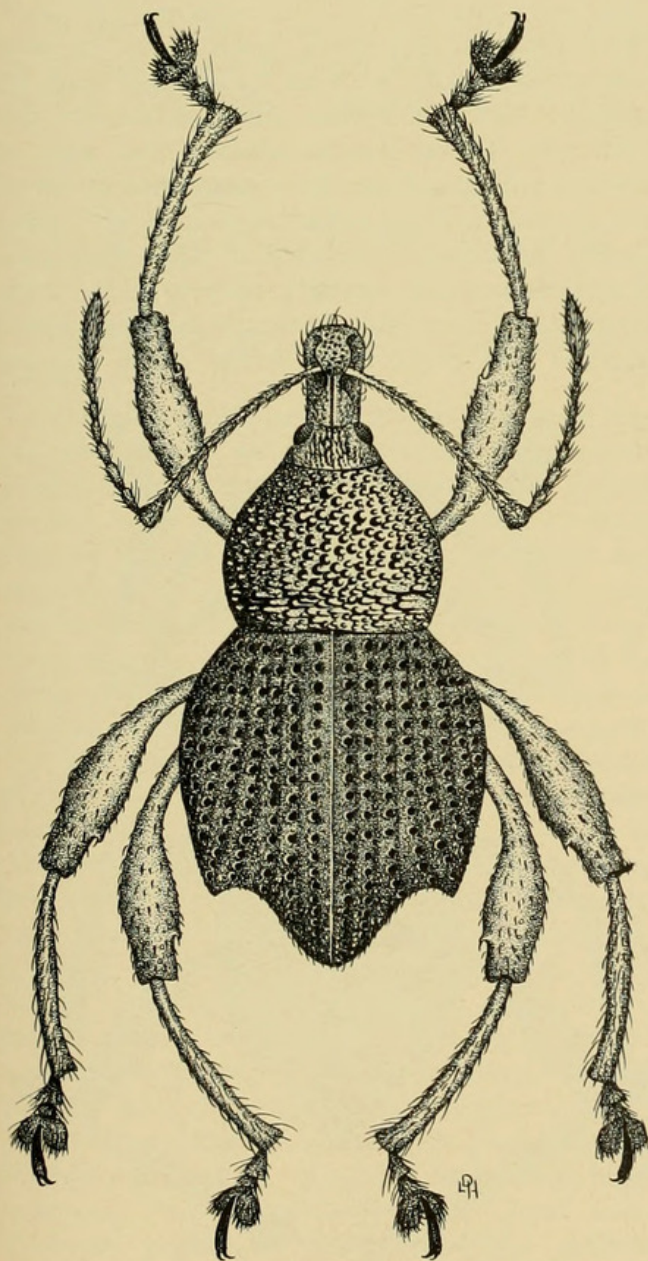
Platyacus laticollis Hllr.

Heller, Wien. Ent. Zeit. XXIX, 1910, p. 193

Fig. 8, 14

Derm black with white scales, some iridescent.

Rostrum twice as long as head, narrow in middle, expanded at apex, carina ending in U-shaped elevation at declivity which is finely punctuate. Sulcus separating rostrum from head circular in shape. *Antenna* scape enlarged at distal end, reaching middle of prothorax, funicle shorter than scape, segments elongate, club as long as segments 5-6-7 combined. *Prothorax*, prosternum with projecting tooth on each side of apical sinuation; more than one-fourth wider than long, widest back of middle, base truncate, apex concave, disc flat, slightly concave along medial area, with granules. *Elytra* widest near base, broadly ovate and acuminate behind, intervals 3-4 slightly elevated at declivity, punctures along striae and granules on interval, granules on intervals 3-4 at declivity prominent, with short setae, white scales in irregular transverse rows across elytra. *Legs*, femora not reaching apex of elytra, one large and several smaller teeth on each of femora, no scales, but few setae on underside of body; fourth ventrite of female deeply bimarginate forming a median lobe as shown in Fig. 14, segment 3 is sparsely covered with setae.

Fig. 7. *Platyacus subalatus* Hllr.

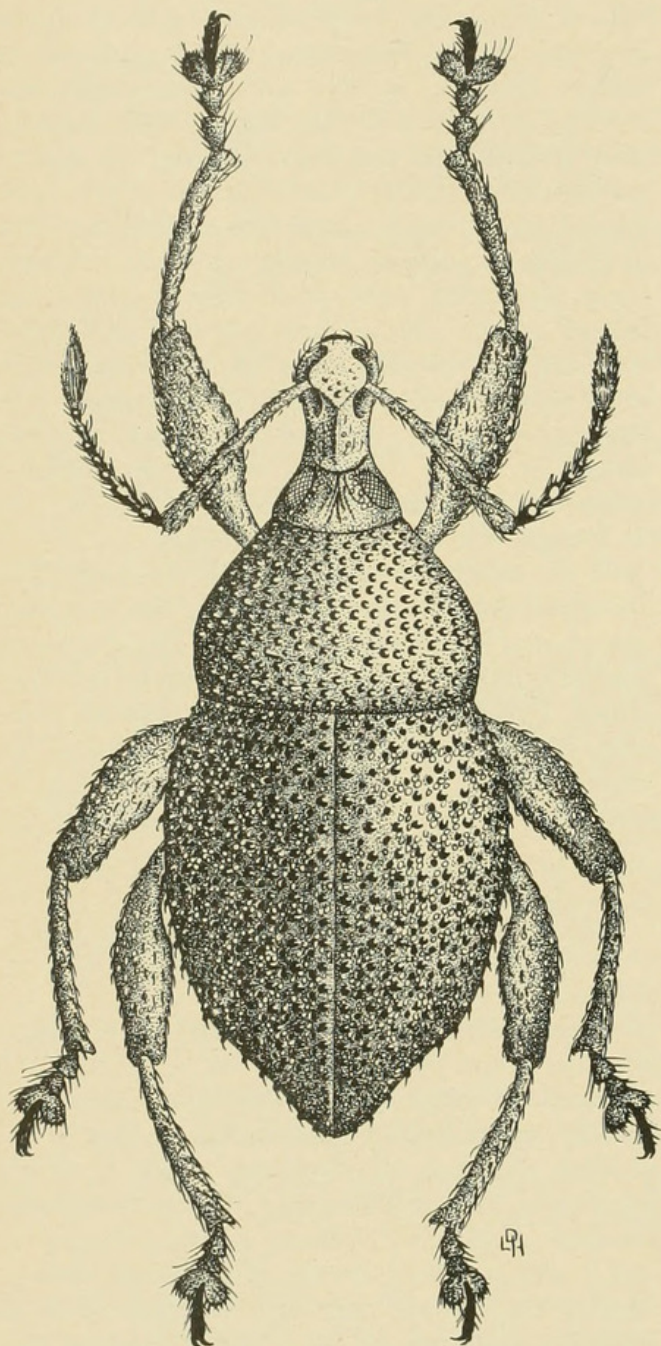
Platyacus kolombangarae Mshl.

Marshall, Otiorrhynchine Curculionidae, Tribe Celeuthetini, 1956, pp. 68-70, Fig. 25, British Mus., Nat. Hist.

Fig. 9

Derm black with dense green scales, except in the middle of the venter.

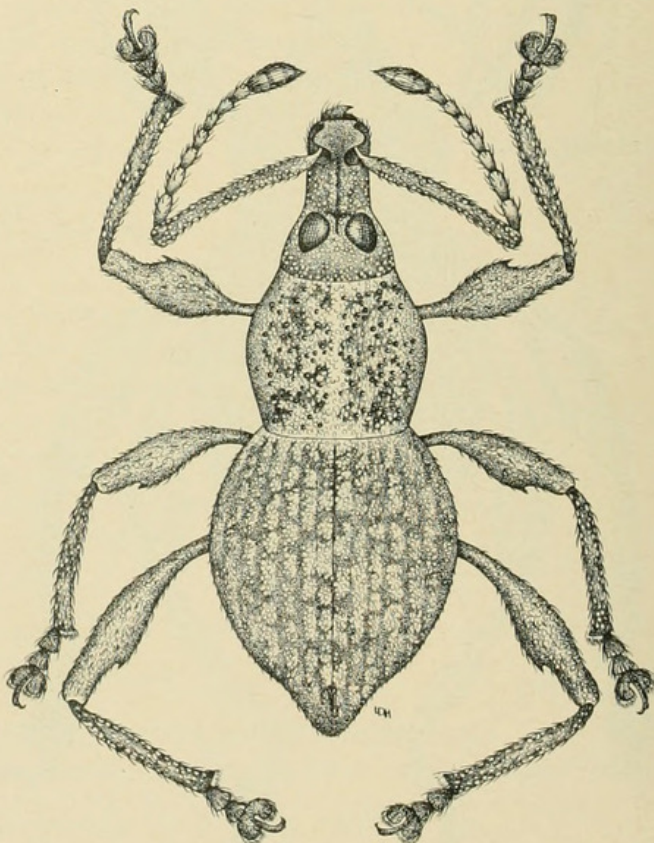
Rostrum narrow, carina ending at declivity without an evident elevation, sulcus V-shaped; antennae wide from origin to apex, slightly bowed, with dense green scales and decumbent black setae, scape reaching slightly beyond middle of prothorax; funicle a little longer than scape, segments elongate, especially 1-2. *Prothorax* wider than long, rounded laterally, slightly constricted near apex, widest behind middle, base and apex truncate, disc convex with small black granules and dense green scales, median area more densely set with scales, punctuate on pleurae. *Elytra* of female ovate, acuminate behind with lateral margin sinuate near apex, a distinct sub-apical elevation near apex of interval 4; male without callus, or margin sinuation, shortly acuminate behind and with apex produced downward; dorsum convex, striae with deep naked punctures, intervals between striae covered with dense green scales which obscure

Fig. 8. *Platyacus laticollis* Hllr.

Length 10.2 mm; breadth 5.0 mm.

Type locality: Bougainville Island. The above description from one specimen from Salamo Inseln-Kieta 1910, 12-typus-Staatl. Museum für Tierkunde, Dresden.

Remarks: The fourth ventrite of *kolombangarae* Mshl. is very different to that of *laticollis*. This is a good ♀ character which may prove to be of aid in separating species of this genus. Fig. 26: p. 70 of Marshall's "Otiorrhynchine, Curculionidae of the tribe Celeuthetini" is mislabeled, it should be venter of *Platyacus kolombangarae* Mshl.

Fig. 9. *Platyacus Kolombangarae* Mshl.

small granules with short setae. *Legs*, black and reddish-brown, all femora with a small tooth, tibia straight. Covered dorsally with green scales. Ventrites without scales, except 1 and 2 with scales laterally and along posterior margin of 2. Fourth ventrite of female modified as shown by Sir Guy Marshall.

Length 5-6 mm; breadth 3.0-3.6 mm.

Type locality: Solomon Islands: Kolombangara Island. Locality of specimens studied: New Georgia Group, Kolombangara, Island Kukundu, S. W. Coast 1-12 M, 10 VII, 1959, (J. L. Gressitt). New Georgia Group: Nr. Ego, 1-25 m. July 16, 1959, (J. L. Gressitt) *Freycinetia*. Solomon Islands: Kolombangara-Iri-iri; 27 VII, 1958, (P. G. Fenemore); Vella Lavella, Tiopari, 26 VII, 1958, (P. G. Fenemore); Choisaul, Luti, 1 VIII, 1958, (P. G. Fenemore).

Remarks: Dr. Gressitt collected specimens of *kolombangarae* on the following plants; *Calophyllum*, *Freycinetia*, *Flagellaria*, and the palm.

Platyacus malachiticus Hllr.

Heller, Wien. Ent. Zeit. XXIX, 1910, p. 192

Fig. 10

Derm black with green and some iridescent scales.

Rostrum short, expanded some at apex, carina acute, small elevations at declivity, declivity scaleless, and punctate; antennae scape slightly bowed, same in diameter throughout, reaching beyond the middle of prothorax, punctate and covered with scales and decumbent setae; funicle segments elongate. Two-longer than 1. *Head* shorter than rostrum, rugose and punctate to the apex; eyes round, slightly convex, frons, between eyes as wide as diameter of eye; sulcus separating head from rostrum circular. *Prothorax* 3.2 mm in breadth, 2.3 mm long, constricted near apex, widest a little behind middle, truncate at base, slightly concave at apex, punctate on pleurae, disc flat, with black shiny granules and punctures obscured by green scales. Prosternum has a slight sinuation and small projection which resembles a tooth. *Elytra* broadly ovate, widest before middle, elevation on interval 5, without subrect black setae, sharply acuminate behind narrow declivity, dorsum only slightly convex transversely; shallow striae with punctures, intervals with cluster of scales and small black granules, small recumbent white setae. *Legs* proximal portion of femora reddish; anterior femora with one large and several small teeth. Ventral surface with setae devoid of scales; ex-

cept lateral portion of metasternum; ventrites scaleless, 4-3 times as long as 3, normal in shape.

Length 9 mm; breadth 5.0 mm.

Type locality: Solomon Islands, Bougainville Islands. The above description from one specimen from Bougainville Island-Kieta (Kapt. Kurtz). 1908-3-Typus Staatl. Museum für Tierkunde, Dresden. Other specimens studied: Bougainville Is.-(S.) Kieta, XI. 30 1959, (T. C. Maa), Bishop Museum Bougainville Is. Pukpuk, Nr. Kieta VI 26, 1956, (E. J. Ford, Jr.). Bougainville Is.-Kaure 690 m. VI -8-18-1956 (J. L. Gressitt). Kokure, Nr. Crown Prince Ra. 900 M. VI-10-1956 (J. L. Gressitt).

Remarks: The specimen of *malachiticus* from Dresden has a small projection on the proster-

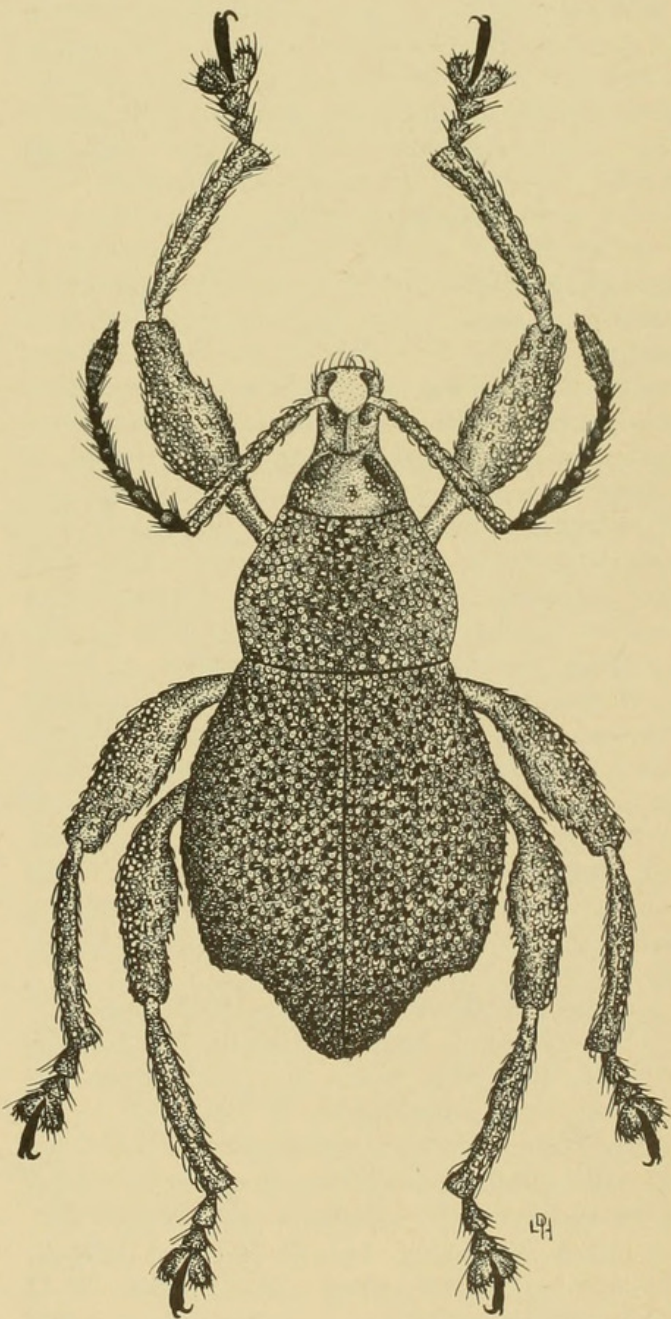


Fig. 10. *Platyacus malachiticus* Hllr.

nal apical situation, likewise, some specimens collected by Dr. Gressitt. This should be considered when using the above key by Sir Guy Marshall.

Platyacus nigrocristatus Hllr.

Heller, Verh. Naturf. Ver. Basel XLV, 1934, p.22

Fig. 11

Derm brownish, black, with dense white scales. *Rostrum* a little longer than head, parallel sides, carina distinct, scales dense with small black granules showing through, slight elevation at declivity which is reddish-brown with sparse white setae, scrobes small separated by a greater width than diameter of antennae scape. *Antennae* slightly bowed, gradually increasing in diameter to apex, densely covered with white scales and decumbent black setae, extending beyond middle of prothorax, funicle a little longer than scape; segments 1-2-3 as long as segments 4-5-6-7 combined. *Head* densely covered with scales, a frontal carina which meets rostral carina at curved sulcus; punctate extending to apex of head, granules interspersed among scales; eyes large, ovate, space between them less than diameter of eye. *Prothorax* 1.6 mm. long, 1.8 mm. in breadth, parallel sided in basal half, transversely convex on disc with granules and punctures, scales on septa around punctures (except in medial area which is sparsely covered); base and apex truncate, pleurae punctate and densely covered with scales; a short white setae issuing from each puncture. *Elytra*, greatest width just before middle, shallow striae with punctures similar to those on prothorax; white scales on septa between punctures and on intervals; slightly convex at middle becoming concave between black elevations on fifth interval, shortly acuminate behind with apex produced downward. *Legs* brownish covered with white scales and setae; all femora with a large brown-colored tooth; venter and ventrites 3-4-5, with white decumbent setae, ventrite 4 of ♀ sculptured similarly to that of *websteri* Faust.

Length 5.0-6.8 mm; breadth 3.0-4.0 mm.

Type locality: Solomon Islands, Bougainville Islands. This description was made from one specimen from Bougainville, 30-5-60, 1926-5 *Platyacus* (*Hoplotrigonops*) *nigrocristata* L'N H typus 33 (the genus and species is in Heller's hand writing) Staatl. Museum für Tierkunde, Dresden.

Other specimens studied: Solomon Islands: Bougainville Is. (5). Kieta, XI. 27, 1959, (T. C. Maa). Bishop and Simba Mission, June 29, 1956, (E. J. Ford, Jr.).

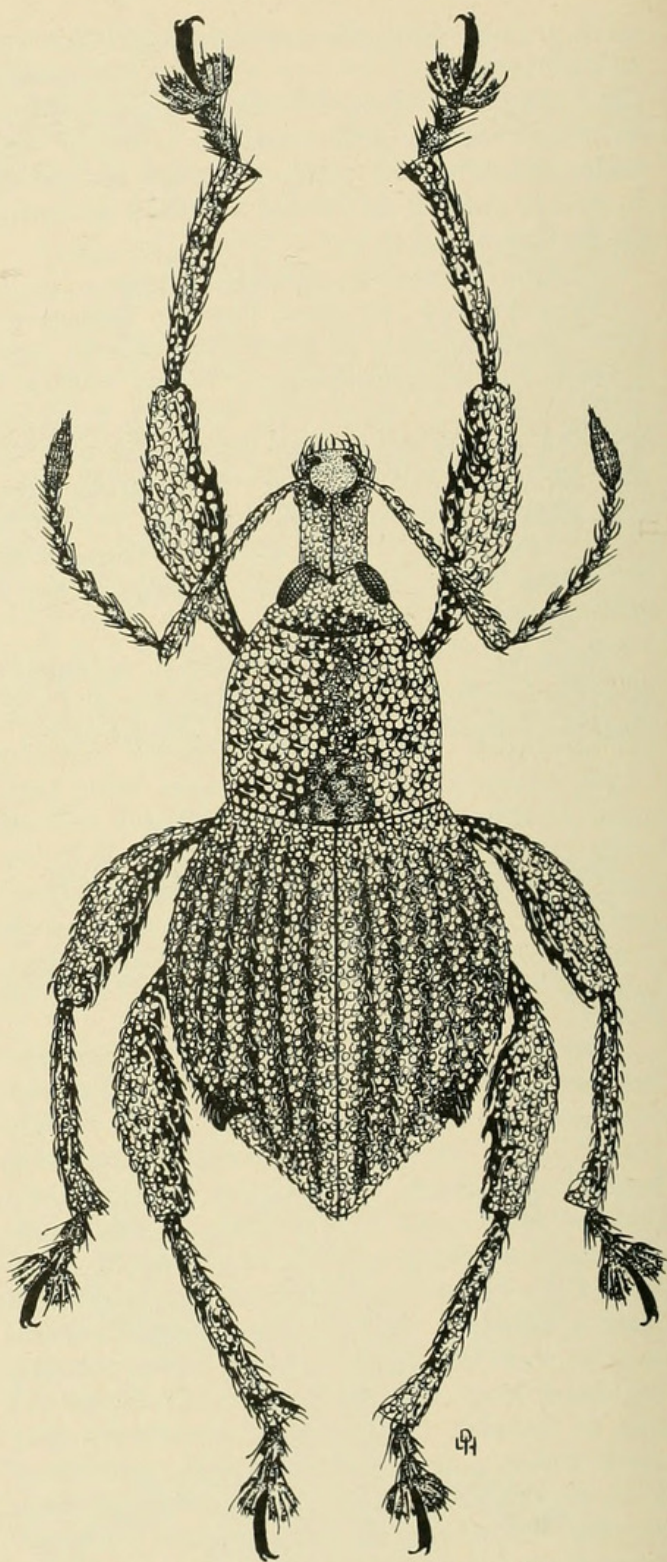


Fig. 11. *Platyacus nigrocristatus* Hllr.

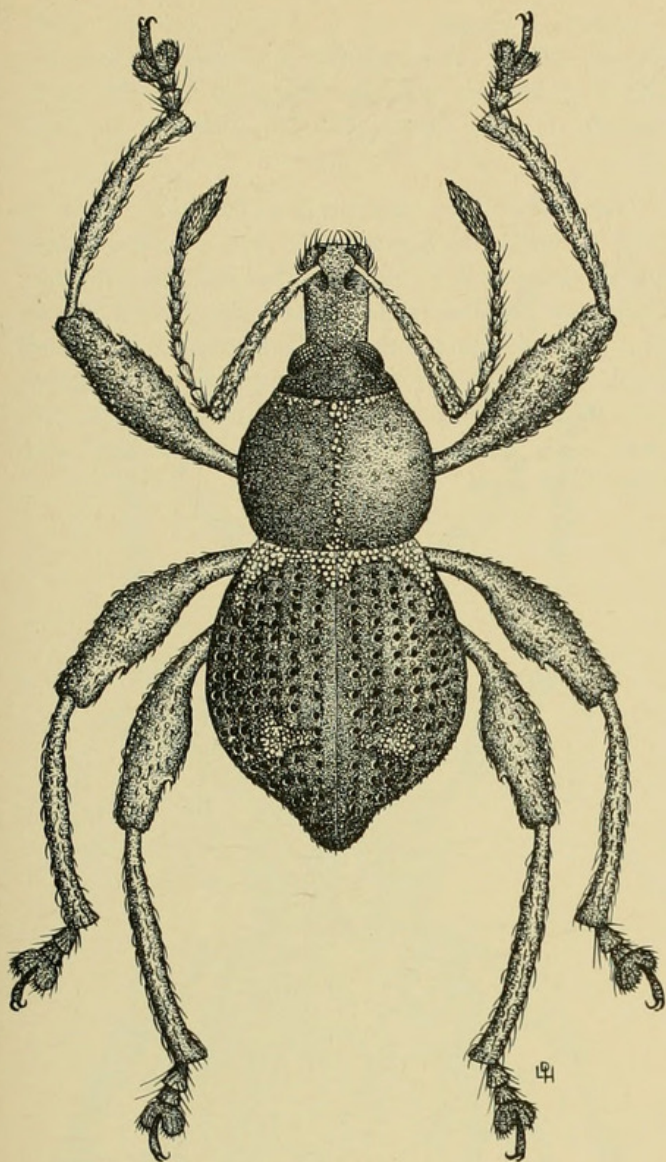
Platyacus decoratus Fst.

Faust, Stett. Ent. Zeit. LVIII, 1897, p. 272

Fig. 12

Derm with black small blue-green and yellowish scales.

Rostrum, sides parallel, one and one-half time as long as head, carina with small elevation at declivity; antennae scape narrow at origin, en-

Fig. 12. *Platyacus decoratus* Fst.

covering entire apical except suture, striae with larged at apex, reaching anterior half of prothorax, funicular segments 1-4 pyriform, 5-6-7 diameter equal to length, club slightly longer than preceding three funicular segments. *Head* short, with small blue scales and irregular wavy elevated lines from between eyes to apex, frons between eyes narrower than width of eye. *Eyes* frontal and moderatley convex. *Prothorax* wider than long, base and apex truncate, slightly constricted near apex, widest before middle, transversely convex, disc rather rugose, granules showing through scales which obscure punctures. Medial line with dense green scales. *Elytra* ovate, sharply acuminate especially in ♀ with bands of yellowish green scales, a complete basal band from which extends three backward elongations along the suture and 5-6-7 intervals, a shorter band behind middle extending to stria 4 and broadly interrupted on suture and a band

punctures, septa and intervals with small blue and green scales. ♀ with tuft of setae on suture of declivity. Small granules with short setae on intervals. *Legs* black with blue and green scales on femora with a large tooth and several smaller ones. *Tibia* slender, straight, and long. *Venter* covered with scales, except middle area of ventrites 1-2 and all of 3-4-5. Ventrites 4 with modified fourth segment (Fig. 14).

Length 5.1-6.5 mm; breadth 2.9-3.2 mm.

Type locality: Solomon Islands: Isabel Island. The above description was made from one specimen with the following notation on the small gold-colored square label on the pin - Isabel I. (Webster). *Decoratus* Faust; Coll. J. Faust, Ankauf 1900 - Typhus - Staatl. Museum für Tierkunde, Dresden. Other specimens studied: Solomon Islands - New Georgia Group, N. Georgia Is. - Munda 1 - 30 M. VII - 15 - 1959 (J. L. Gressitt) *acalypha*.

Remarks: The fourth ventrite of the ♀ is distinctive, Fig. 14.

Platyacus websteri Faust

Faust, Stett. Ent. Zeit. LVIII, 1897, p. 270

Fig. 13

Derm black, clothed with a mixture of green-white and blue scales or entirely all blue scales.

Rostrum parallel-sided and almost twice as long as wide; dorsum narrow with a central carina, bordered on each side with a small carina, very small elevation at top of declivity; separated from head by a sulcus. Carina of rostrum continuous with carina of frons. *Antennae* long, scape reaches beyond three-fifths of prothorax; slightly curved, as wide at base as apex, funicle segments elongate, segments 1-2 as long as 3-4-5 combined, club long and slender; scales on dorsal portion of scape. *Prothorax* wider than long, widest at middle, truncate at base and apex, slightly constricted at apex; dorsum flat toward base, closely set with small granules and punctures, median line densely covered with scales. *Prosternum* without teeth on front margin. *Elytra* widest at anterior third, gently sloping to apex, 10 striae with deep punctures, distinctly separated from intervals which are covered with rows of scales. Declivity and apex practically devoid of setae. *Legs*, femora reaching tip of elytra, basal portion of femora narrow, club not robust, teeth on all femora, tibia straight, ventral surface of body covered by scales except median portion of ventrites 1-2 and all of 3-4-5 with densely covered fine setae.

? *websteri* Faust; Coll. J. Faust, Ankauf, 1900, Typus, Staatl. Museum für Tierkunde, Dresden. Other specimens studies: Solomon Islands; Buka Islands: Gagon, 40 M. VI - 15 - 1956 (J. L. Gressitt).

Remarks: The statement in the key, "ventrite 4 of ♀ with the processes at the external apical angles only half as long as the median process," could not be observed on specimens listed above. The one specimen labeled "*Solomonus*?" is well marked with blue scales in contrast to the specimen labeled "*Alu I* - Shortland Is." which is covered with scales colored green-white and with some blue ones.

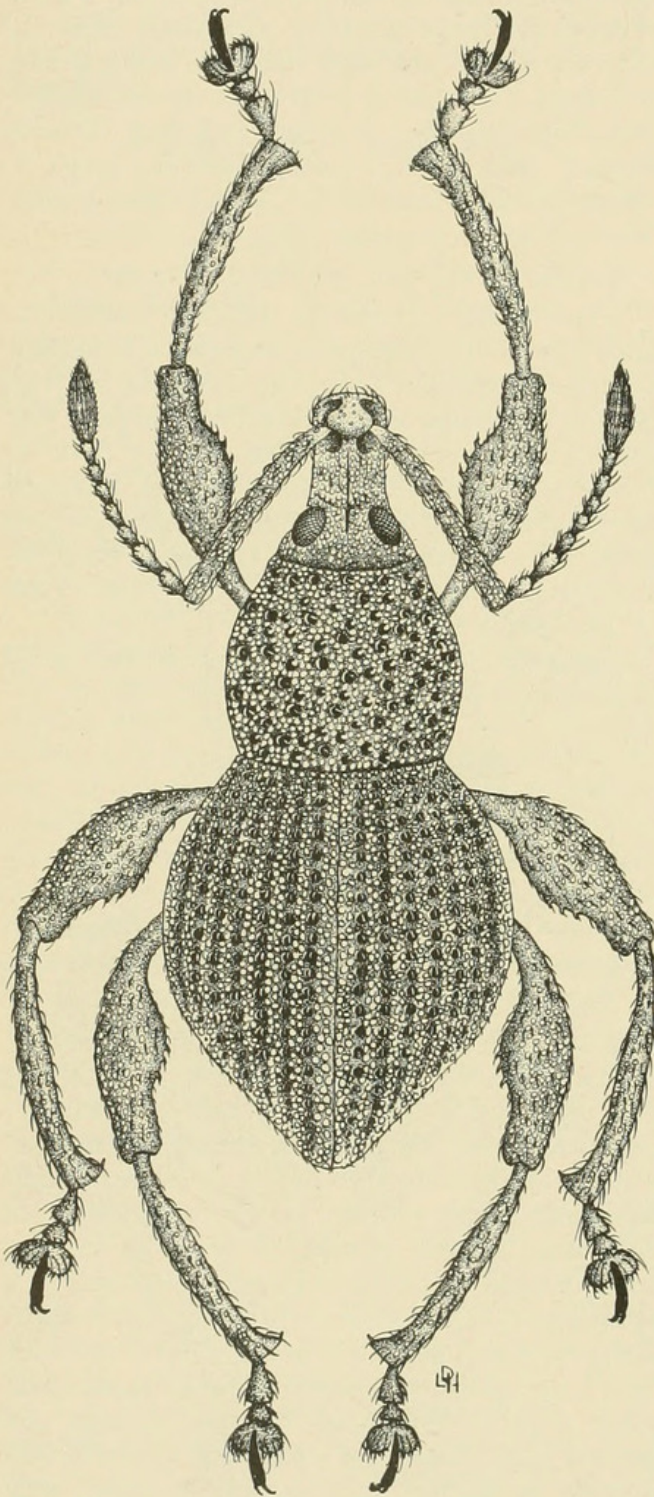


Fig. 13. *Platylacus websteri* Faust.

Length 6.0-6.2 mm; breadth 2.9-3.0 mm.

Type locality: Solomon Islands: Alu Island (Webster). The above description was made from two specimens; one with a small gold-colored square, Alu I - Shortland Is. (Webster); *websteri* Faust; Coll. J. Faust, Ankauf 1900; Typus, Staatl. Museum für Tierkunde, Dresden, one with small gold-colored square; *Solomonus*

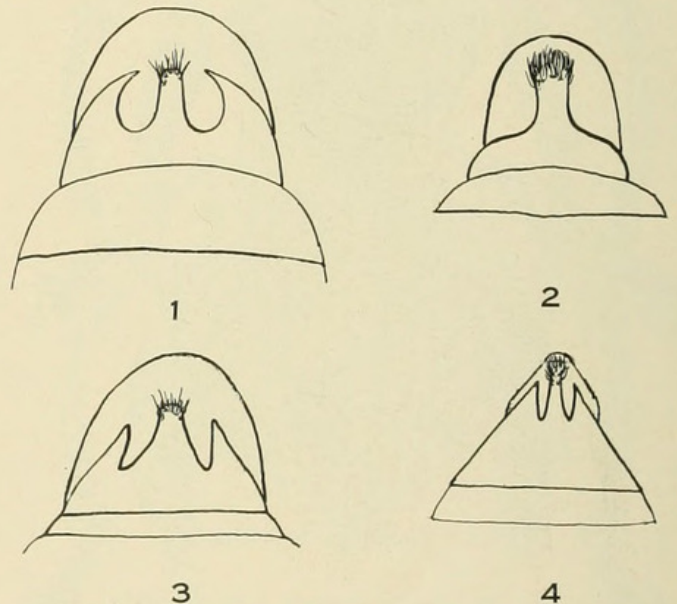


Fig. 14. Female ventrites of species of *Platylacus*. (1) *P. laticollis* Hllr.; (2) *P. Kolombangasae* Mshl.; (3) *P. decoratus* Fst.; (4) *P. minor* Mshl. The fourth ventrite is structurally distinctive.

GENUS *HYPOTACTUS* MARSHALL

Marshall, the Otiorrhynchine Curculionidae of the tribe Celeuthetini (Col.), 1956; p. 66, British Museum, London.

The genus *Hypotactus* was erected for two species, *Platylacus ruralis* and *papillatus* Fst. As noted above I have referred *P. novobritannicus* var. *suturalis* Hllr. to this genus. These species are recorded only from the Bismarck Islands. Species of *Platylacus* are known only from the Solomon Islands.

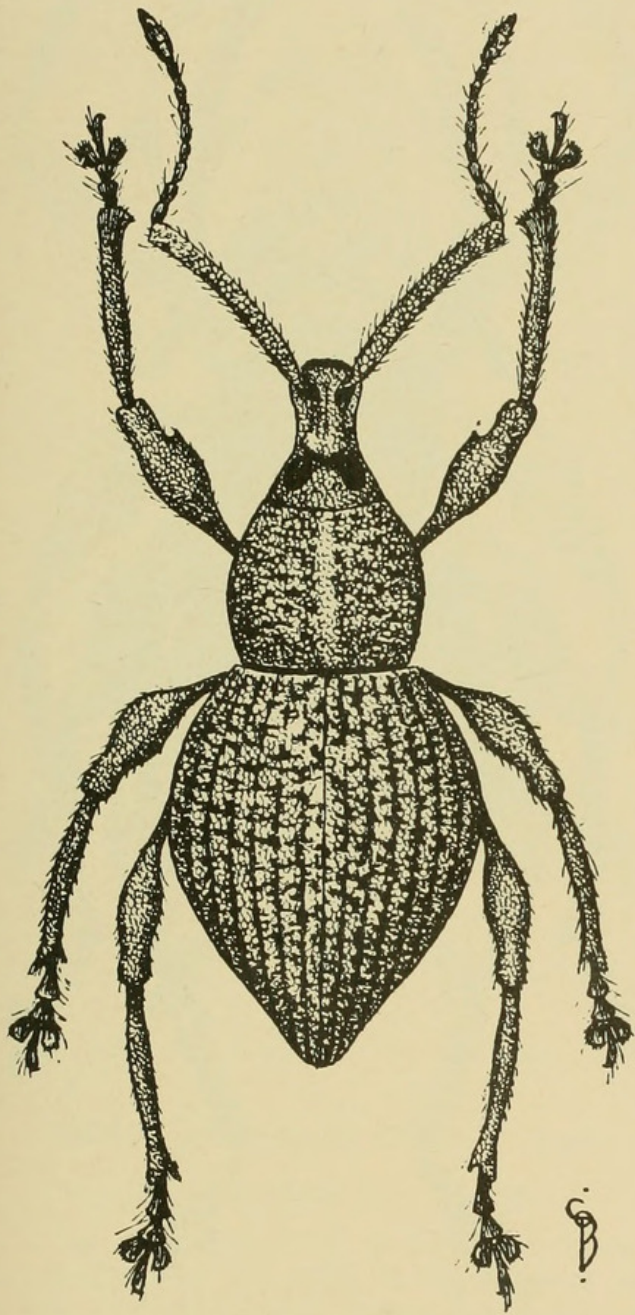


Fig. 15. *Platyacus leveri* Mshl.

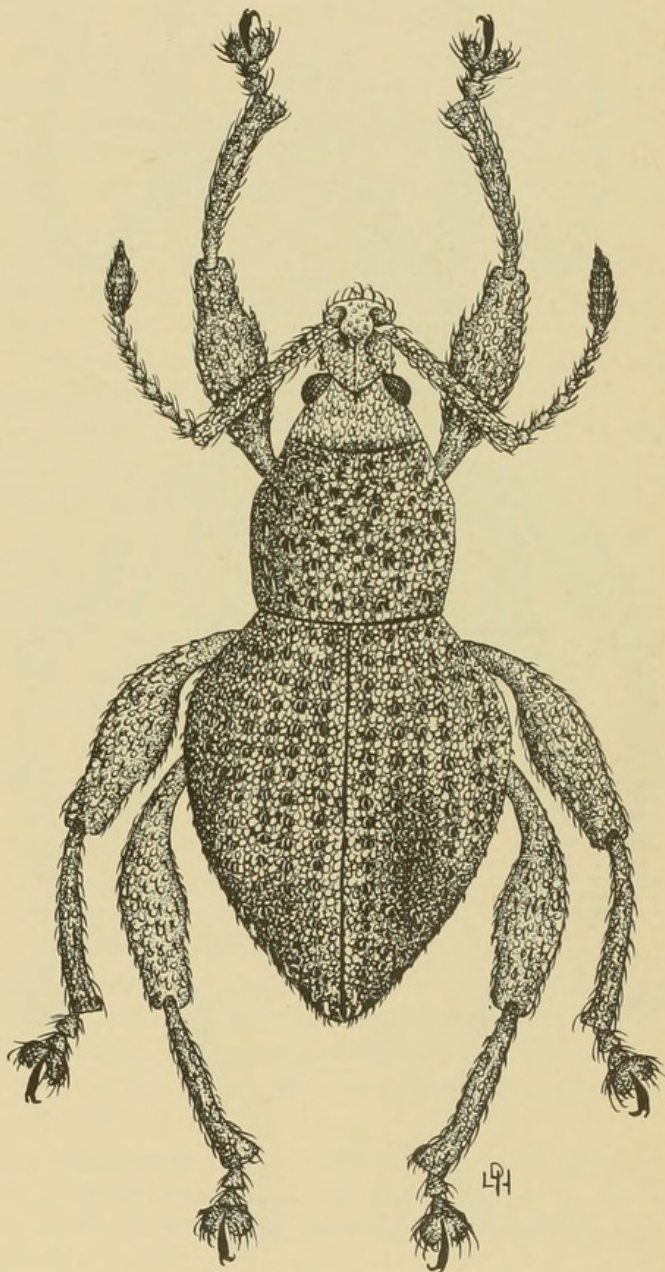


Fig. 16. *Hypotactus ruralis* Fst.

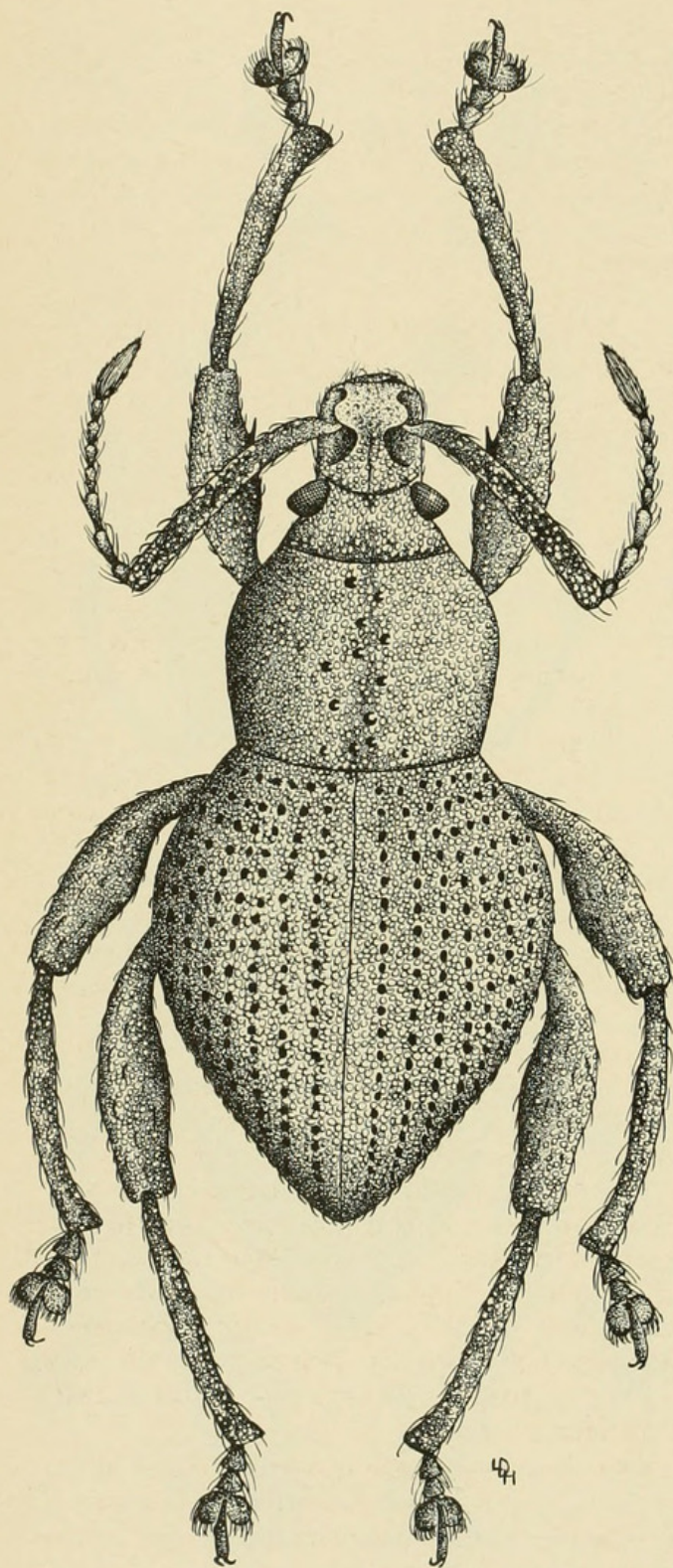


Fig. 17. *Hypotactus papillatus* Fst.

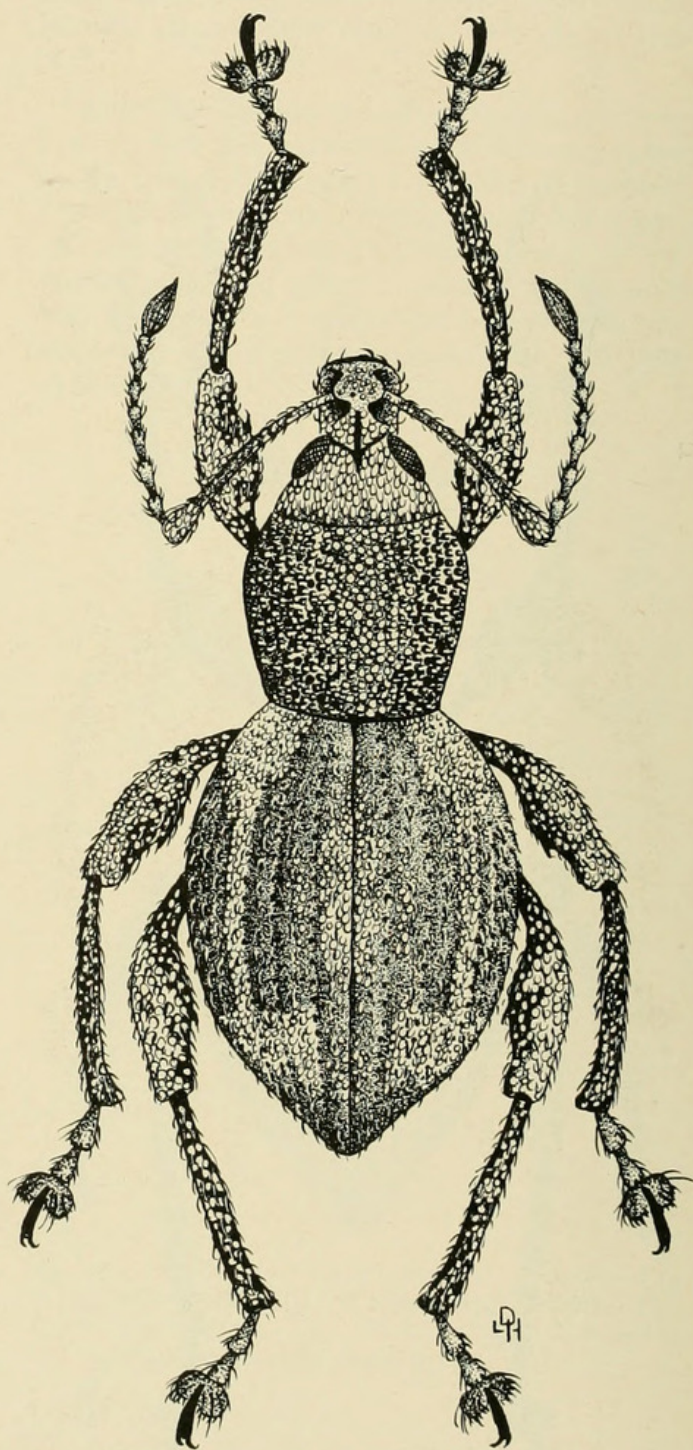
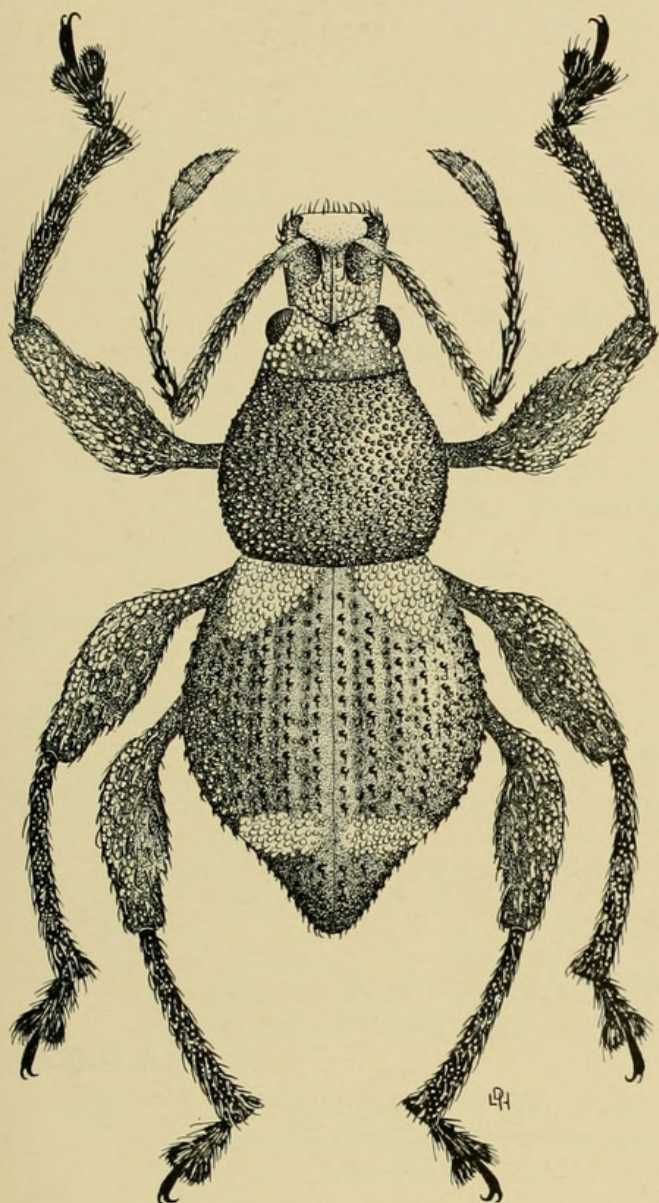


Fig. 18. *Hypotactus novobritamicus* var. *suturalis* Hllr.

Fig. 19. *Paratastus carbunculus* Hllr.

GENUS TRIGONOPS GUERIN (1841)

Guer. Rev. Zool. 1841, 10. 128.

The genus *Trigonops*, so far as now known, is confined, in the main, to the Solomon and New Hebrides Islands. It was first recognized

and described by Guerin in 1841, the genotype being *rugosa* Guerin.

The salient characteristics of the genus are: Body and prothorax globular; rostrum abruptly declivous dorsally at apex, declivity of rostrum squamose; scape similar in both sexes, not compressed, subcylindrical, very gradually widening from base to apex; funicle with joint 2 not longer than 1, eyes highest behind middle, mostly very strongly produced; elytra often granulate but without conical tubercles, with ten regular striae, but tenth often abbreviated and approaching very closely to 9, punctures comparatively large in basal third, much smaller behind, female in many species with tuft of setae on posterior declivity of elytra. Tibiae not carinate dorsally; metasternal suture, visible only near its base; femora without teeth; mesosternal process much broader than long; legs rather long with femora swollen toward extremity.

Sir Guy A. K. Marshall in his study of the tribe Celeuthetini divided the thirty-six species of the old widespread genus *Trigonops* as listed in the *Coleopterorum Catalogus*, pars 160, 1937, pp. 313-315, into six genera thus leaving only fifteen species as typical *Trigonops*, these he considered as confined to the Solomon Islands area. Since K. M. Heller of the Dresden Museum had described eleven of the fifteen species it was most necessary that specimens from the type series be made available for study. Through the kindness of Herrn Dr. Wilhelm Gotz, Hauptdirektor, Staatliches Museum für Tierkunde, Dresden, a loan of cotype specimens of all of the Heller species was made available. Drawings and comparisons with specimens from the assembled collections of *Trigonops* from the Solomon Islands were made. I have studied specimens of all twenty-five species included in this report, with the exception of *vitticollis* Fairm, which is unknown to me.

Since some species are rare and not in most collections, much care has been taken to provide a carefully prepared illustration of each species dealt with in this genus.

KEY TO SPECIES OF GENUS TRIGONOPS GUERIN

1. Elytra punctate with longitudinal series of strongly elevated tubercles, close to each other, forming lines or ribs between which are a series of smaller tubercles; prothorax rugose; size 5.5-6.5 mm in length-3.5-3.6 mm in width. Solomon Islands. genotype, Fig. 20 *rugosa* Guerin
- Elytra without strongly elevated tubercles, close to each other, forming lines or ribs 2

2. Humeral margin of elytra, on both sides, with an outward projecting tooth 3
- Humeral margin of elytra without an outward projecting tooth 4
3. Prothorax flattened on the disc; sides strongly rounded, wider than long. Size 5.5 mm in length—3 mm in width. Kolombangara, Western Group. Fig. 21 *planicollis* Hllr.
- Prothorax not flattened, sides moderately rounded; rugulae; wider than long. Size 5.0–6.5 mm in length—2.5–3.0 in width. New Georgia Island. Fig. 22 *paravicinii* Hllr.
- Prothorax longer than wide, reduced at apex; with large gray and greenish scales; small species, size 3.0 mm in length—1.5 mm in width. Shortland Island. Fig. 23 *minuta* n. sp.
4. Lateral margin of prothorax in basal half not angular; longer than wide, tapering from base to apex; with deep punctures; elytra with deep punctures; small iridescent scales. Size 5.0 mm in length—2.9 mm in width, Bougainville Island. Fig. 24 *irrorata* Hllr.
- Lateral margin of prothorax in basal half angular; as long as wide; coarsely and deeply punctured; lateral border with a sharp edge; scales green; elytra rotundate, punctures regular and shallow. Size 5.0 mm in length—2.5 mm in width. Bougainville Island. Fig. 25 *salomonis* Hllr.
5. Eyes blunt and conical, the vertex shifted toward the back 6
- Eyes round, less conical 8
6. Prothorax as wide as long, punctures not as large as the interspaces; elytral punctures deep, small keel on fourth interval at declivity on the ♂. Size 5.0–5.6 mm in length—2.7–2.9 mm in breadth. Russel Island. Fig. 26 *froggatti* Hllr.
- Prothorax wider than long, sparsely punctate, elytral punctures shallow; deeply emarginate at apex. Size 7.2 in length—3.5 mm in breadth. Solomon Islands. Fig. 27 *coerulescens* Blanch.
7. Prothorax wider than long; surface closely tuberculate, tips of tubercles black, shining; scales sparsely placed on the interspaces; elytra longer than wide; punctures deep with clusters of scales and small black tubercles showing through from the intervals between the punctures. Size 4.5–5.2 mm in length—2.5–2.0 mm in breadth. Santa Isabel Island. Fig. 28 *marshalli* n. sp.
8. Rostrum narrow, as long as head; sulcus deep and more crescent shaped; eyes prominent; prothorax wider than long, convex; keel on 4-5 intervals of elytra at declivity; size 6.0–7.1 mm in length—3.0–3.8 mm in breadth. Malaita Island. Fig. 29 *exophthalmus* Hllr.
- Rostrum narrow, as long as head; sulcus shallow V shaped; eyes conical; prothorax as wide as long; clothed with closely set green scales; body compact, punctures prominent and deep on elytra; keel on declivity less prominent. Size 4.5–5.2 mm in length—3.0–3.4 mm in breadth. Guadalcanal Island. Figs. 30-31 *becki* n. sp.
9. Eyes round, large, convex; rostrum wider than long; scrobes large, hollow, sulcus deep, straight, prothorax with large lateral punctures; keel extending from middle of elytra to declivity; body robust. Size 7.1–9.2 mm in length—3.5–4.2 mm in breadth. Guadalcanal Island. Figs. 32-34. *platessa* Hllr.
10. Eyes round, placed well down on side of head; antennae scape slender, scrobes open posteriorly; carina with prominent elevation at rostral declivity, declivity scaleless; prothorax surface granular, with a fine black medium carina;

elytra with small anterior elevation on intervals 2-3; and on intervals 4-5 at declivity. Derm black with small, round, brown scales. Size 4.8-8.0 mm in length-2.5-3.1 mm in breadth. Florida and Guadalcanal Islands. Fig. 35.

..... *granulosa* n. sp.

- Eye round, small, slightly pointed; rostrum wider than long, scrobes prominent, sulcus crescent-like; scape slender; prothorax with distinctive scale pattern; elytra with deep punctures, small species. Size 4.0-4.3 mm in length-2.0-2.3 mm in breadth. Isabel, Florida, and Guadalcanal Islands. Fig. 36 *isabellae* n. sp.
- 11. Prothorax much wider than long; median carina extending the full length of prothorax, elytra emarginate at apex; interval 9 enlarged and thickly covered by gray scales and short setae; size 8.5-8.6 mm in length-3.1-3.3 mm in breadth. Bougainville Island. Fig. 37 *carinithorax* Hllr.
- Prothorax wider than long; median carina obscure; elytra less emarginate at apex, apical enlargement of interval 9 more pronounced; scales green with distinctive pattern; size 7.8-12.3 mm in length-3.5-5.0 mm in breadth. Buka and Bougainville Island. Fig. 38 *bougainvillensis* n. sp.
- 12. Prothorax much wider at base than apex; wider at middle, antenna scape slender; body rotund, ventrites 1-2 with deep punctures; sparse setae and no scales 13
- Prothorax strongly emarginate at base, disc flattened; scrobes large and open, narrowly separated by the rostral carina 14
- 13. Body rotund, elytral apex precipitous; prothorax longer than wide, tapering from base to apex; elytral punctures deep; closely surrounded by small gray scales. Size 4.0-4.8 mm in length-2.1-2.4 mm in breadth. Guadalcanal Island. Fig. 39 *guadalcanalensis* n. sp.
- Body with elytra slightly longer than wide; apex acute; prothorax as long as wide; rostrum longer than head; scales whitish-gray; size 3.5-5.5 mm in length-2.0-3.6 mm in breadth, Kolombangara Island. Fig. 40 *helleri* n. sp.
- Body elytra similar to *helleri*; sides of prothorax almost parallel, disc flat, as wide as long, no median carina or punctures showing, evenly covered, with pearl gray scales. Size 4.0-5.0 mm in length-2.0-2.3 mm in breadth. New Georgia Island. Fig. 41 *seriatopunctata* Hllr.
- 14. Elytra elongate, prothorax angular at base, both flat transversely, punctures and striae obscured by gray and brown scales-size 5.0-6.8 mm in length-3.1-3.8 mm in breadth. San Cristobol Island. Fig. 42 *dilaticollis* Gunther
- Elytra ovate, short, apex obtusely acuminate; base not all latioribus; prothorax narrow longitudinally, greatly narrowed toward the apex; eyes convex, but not pointed; ventrites 1-2 connate. Size 7.0 mm in length. Duke of York Islands. Description page *vitticollis* Fairm
- 15. Rostrum shorter than head; sulcus crescent-shaped; two dark blotches at base of prothorax; elytra flattened, covered by blue-gray scales. Size 4.5-2.6 mm in length-2.5-2.6 mm in breadth. Specimens studied were collected on Sikaiana or Steward Coral Island; about 110 miles east of Malaita Island. Type locality; Nukumanu, an atoll about 250 miles ENE of Bougainville, sometimes called Tasman Island. Fig. 43 *notaticollis* Hllr.
- Rostrum as long as wide; sulcus straight, a V-shaped fovea at head junction with sulcus: Prothorax wider than long, dorsally flattened; constructed near apex; puncture with small, black tubercles showing through scales, elytra are evenly and fairly deeply punctate; covered with bluish-green scales. Size 7.0-

7.2 mm in length—3.2–3.5 mm in width; Russel and Guadalcanal Islands. Fig. 44 *forticornis* Hllr.

16. Prothorax with deep angular punctures, rostrum longer than wide; base tumid, sulcus deep, wide and straight, elytra with deep punctures, size 4.8–6.1 mm in length—2.6–3.6 in breadth. Bougainville Island. Fig. 45 *gressitti* n. sp.

— Prothorax without deep angular punctures; rostrum much longer than wide, antennae scape slender and curved; scales greenish blue, forming a distinctive pattern, a small species; size 3.1–3.2 in length—1.4–1.5 mm in breadth. Bougainville Island. Fig. 46 *gloriosa* n. sp.

Trigonops rugosa Guérin

Guérin-Meneville. Rv. Zool., 1841, p. 128.

Fig. 20

Derm dull black with small blue scales on rostrum, head, prothorax, elytra, legs, and under side of body, decumbent setae sparse.

Rostrum as long as head, with a conic elevation on its superior extremity. Scrobes deep and wide, separated by conic elevation, rostrum separated from the head by a curved sulcus. Head short, wider than long, eyes situated well down on side of head, in the form of two cones, with points directed slightly toward rear. Antennae rather slender, scape reaching middle of prothorax, gradually expanding toward apex, funicle as long as scape, segments 1-2 longer than 3-4-5 combined, club as long as segments 5-7 combined. Prothorax wider than long, convex, widest just back of middle, slightly constricted near apex, base and apex truncate, disc rugose, with few small blue scales. Elytra much wider than prothorax, almost as wide as long, globular, a little attenuated at apex, disc with longitudinal series of elevated tubercles, close to each other and forming ribs or rows between a series of smaller tubercles; declivity and lateral areas with short white setae; stria 10 complete with small punctures. Legs, hind femora not reaching apex of elytra, club of femora moderate in size, blue scales short setae on femora and tibia, coxae separated, ventrites 1-2 with few scales and setae, ventrite 5 as wide as 3-4 combined; 5 with long straight setae on distal margin.

Length 5.1 mm; breadth 2.9 mm.

Type locality: Solomon Islands. This species is the genotype of *Trigonops*. The genus was established on one species from the Solomon Islands, collected by members of the expedition to the South Pole, 1841.

In this study I have seen just two specimens. Sir Guy Marshall furnished one specimen labeled *Solomon Pacific Islands*. The illustration, Fig. 20,

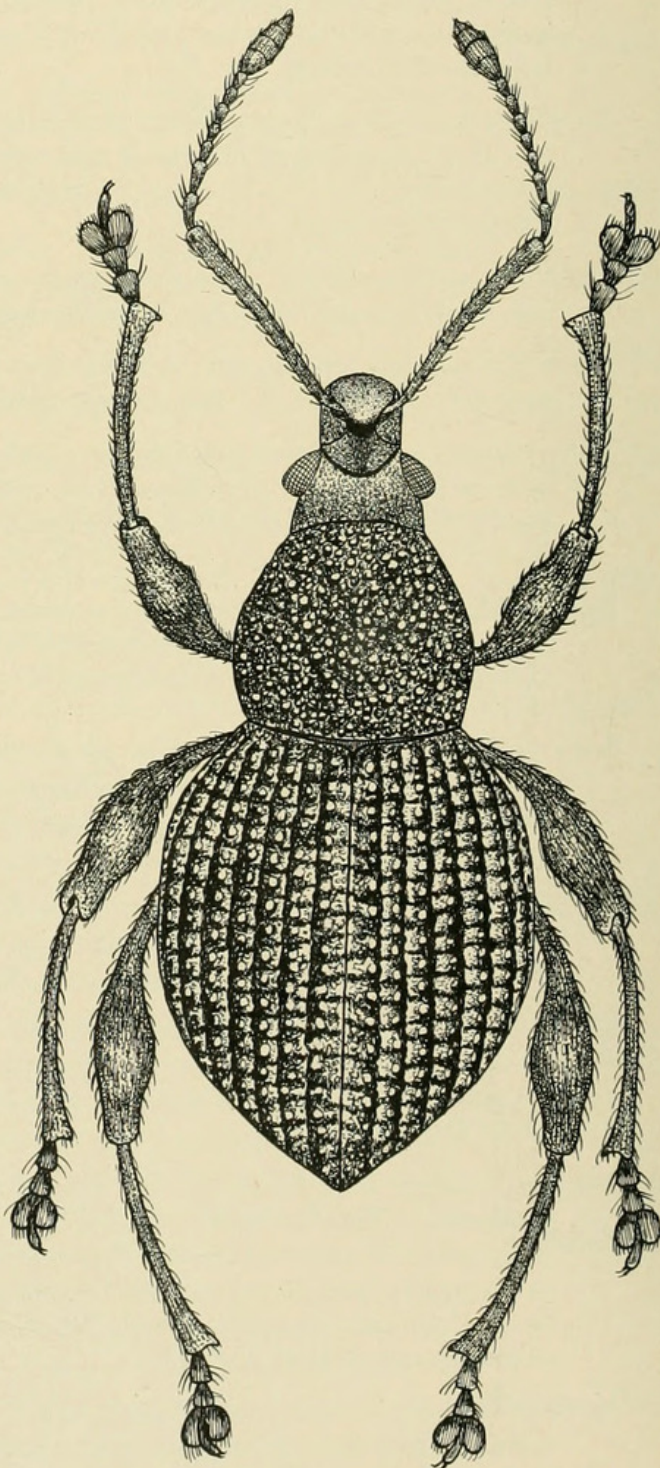


Fig. 20. *Trigonops rugosa* Guérin

was made from this specimen. It was returned to the Natural History Museum in London. One specimen is now in the Brigham Young University Entomological Collection. The right prothoracic leg, the tibia, and tarsus of the mesothoracic and the left metathoracic leg are missing, otherwise it is a perfect specimen. It bears a label *Solomon Islands*. There have been no other specimens of this species come to my attention during this study of hundreds of specimens of *Trigonops* from most of the islands of the Solomon Group.

The prominent round, rostral elevation, small, blue scales, rugosity of the prothorax and elytra, and small size are distinctive characters of *rugosa*.

Trigonops planicollis Heller

Heller, Verh. Naturf. Ges. Basel XLX, 1934, p. 16, 21.

Fig. 21

Derm rubescent, scales green and iridescent. *Head* small, rostrum as long as head. Vertex rugose with few blue, some green, and iridescent scales; rostral carina fine, ending in small elevation on gently sloping declivity, declivity red-

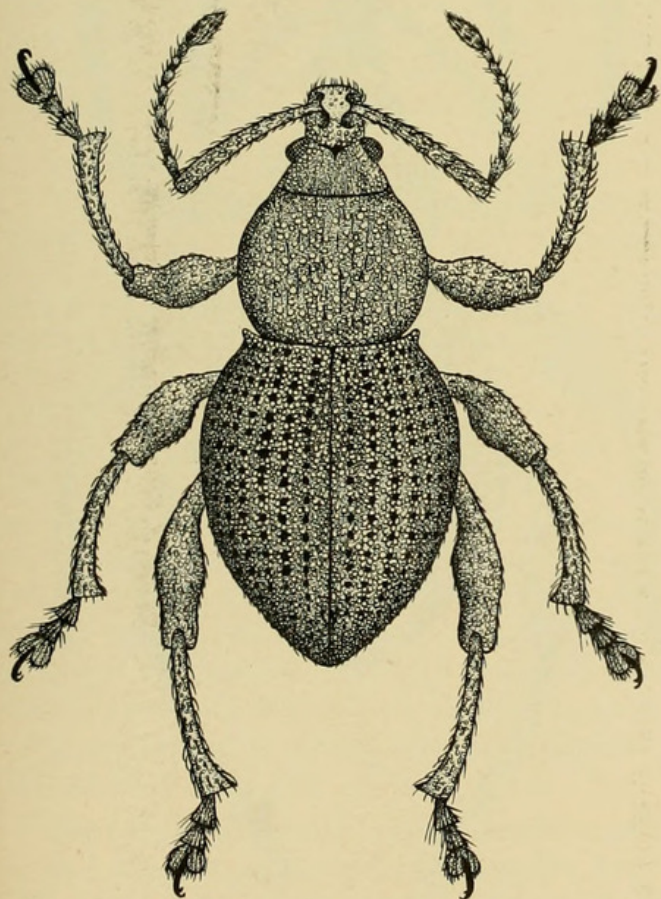


Fig. 21. *Trigonops planicollis* Hllr.

dish, practically devoid of scales and setae; scrobes small, *antennae* scape slightly larger at apex than at base, reaching to middle of prothorax. Densely covered with black, curved setae and iridescent scales; segments 1-3 of funicle elongate; 4-7 rotundate, club small, as long as segments 5-7; segments with black setae; eyes large, rather flat and placed well down on side of head, sulcus shallow, a row of scales between eyes and sulcus. *Prothorax* wider than long; widest near middle, flat transversely, scales roundish and more dense on lateral margins, no median carina, punctures small and close, apex and trunk truncate. *Elytra* one-fourth longer than broad, broadest near base, base slightly concave; humeral spine near base of striae 8-9, disc convex transversely; striae with deep punctures, scales on intervals of declivity in female; ten regular striae, somewhat emarginate near apex which is rather acuminate. *Legs* reddish with hind femora extending beyond apex of elytra, bulbous part three times width of base; dorsal surface of femora and tibia covered with green scales, lateral and ventral surfaces with light-colored setae; anterior and middle tibia bowed. Venter and ventrites sparsely covered with scales, punctures deep, but widely separated, ventrites 3-5 devoid of scales and setae.

Length 5.5 mm; breadth 3.0 mm.

Type locality: Solomon Islands, July 1909 (W. W. Froggatt).

Distribution of specimens studied: Solomon Islands, Western Group, Kolombangara, Kuli, October 2, 1954 (E. S. Brown); Arundel Isl., Nauru, ♂ and ♀, August 6, 1936 (R. A. Lever); Rendova, May 1957, (R. G. Fenemore). Collected on cocoa foliage.

The specimens collected by Lever and Fenemore agreed with the cotype specimen loaned to the author by Herrn Dr. Gotz of the Museum für Tierkunde, Dresden.

Heller in commenting on *planicollis* said it is in the stature, on the average, a little smaller, the tooth on both sides of the elytral humerus, smaller and blunter, the prothorax wider; elytra uniform; punctures covered with green scales, femora extending beyond the tip of the elytra in contrast to *paravicinii*.

Trigonops paravicinii Heller

K. M. Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 16.

Fig. 22

Derm black, except the legs and rostrum which are reddish in color.

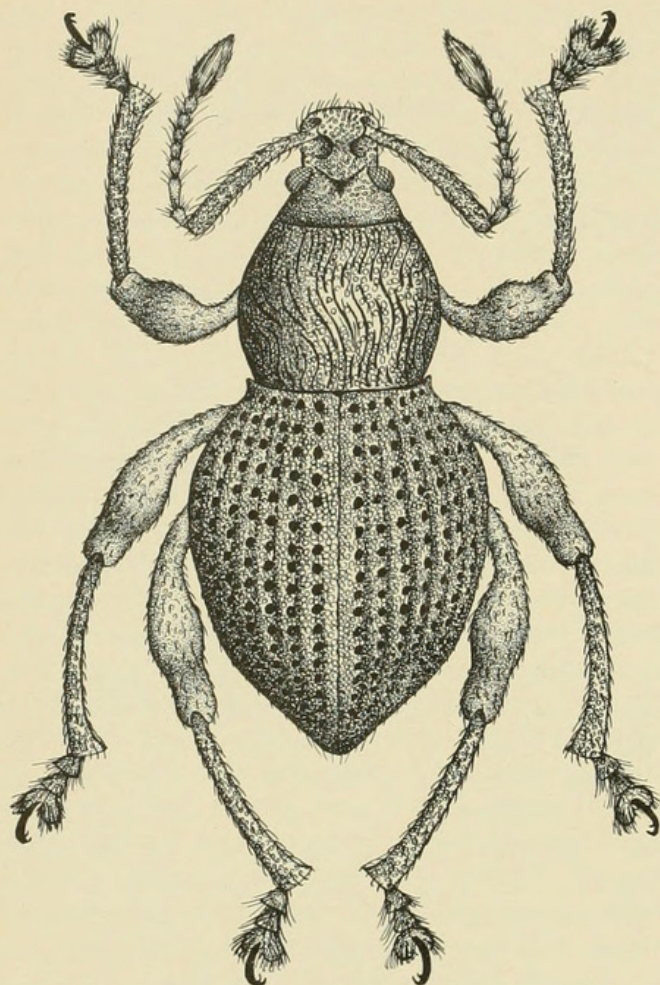


Fig. 22. *Trigonops paravicinii* Hllr.

Head shorter than rostrum rostral sulcus V-shaped; carina fine, distinct and black, blending into declivity without an elevation; eyes placed well down on side of head, flattened, vertex mildly rugose with small blue and greenish scales, widely separated; scape of antennae large gradually expanding in diameter towards apex, segments 1-2 of funicle elongate, others cylindrical, club longer than segments 5-7. *Prothorax* truncate at apex and base, width at middle 2.2 mm; length 2.1 mm, disc slightly convex with longitudinal wavy ridges, punctures in intervals, small blue-green scales on costae. *Elytra* oval, widest near base, convex transversely, deep punctures in striae, intervals with small, bluish scales, some larger scales scattered around punctures; declivity precipitous, lateral humeral area of elytra with small, sharp tooth. *Legs* reddish in color; femora club enlarged near apex, not reaching tip of elytra, femora and tibia with small, green scales, ventrites 1-2 laterally sparsely clad with small scales, punctures few and shallow with decumbent setae; 3-5 ventrites devoid of scales.

Length 6.9 mm; breadth 3.8 mm.

Type locality: New Georgia, Ratuna; July 1932.

Two cotype specimens, a male and a female, from the Heller Collection in the Museum für Tierkunde, Dresden, were compared with a specimen from Sir Guy Marshall, which he had compared with a cotype female specimen. These three specimens are from the type locality.

This rare species is characterized by the reddish legs and rostrum, prothorax slightly convex with longitudinal wavy ridges, lateral humeral area of elytra with a small, sharp tooth, and body clothed with small blue-greenish scales.

Trigonops minuta n. sp.

Fig. 23

Derm black, with pale green scales in longitudinal pattern, prothorax with a narrow median line devoid of scales, showing well-developed punctures.

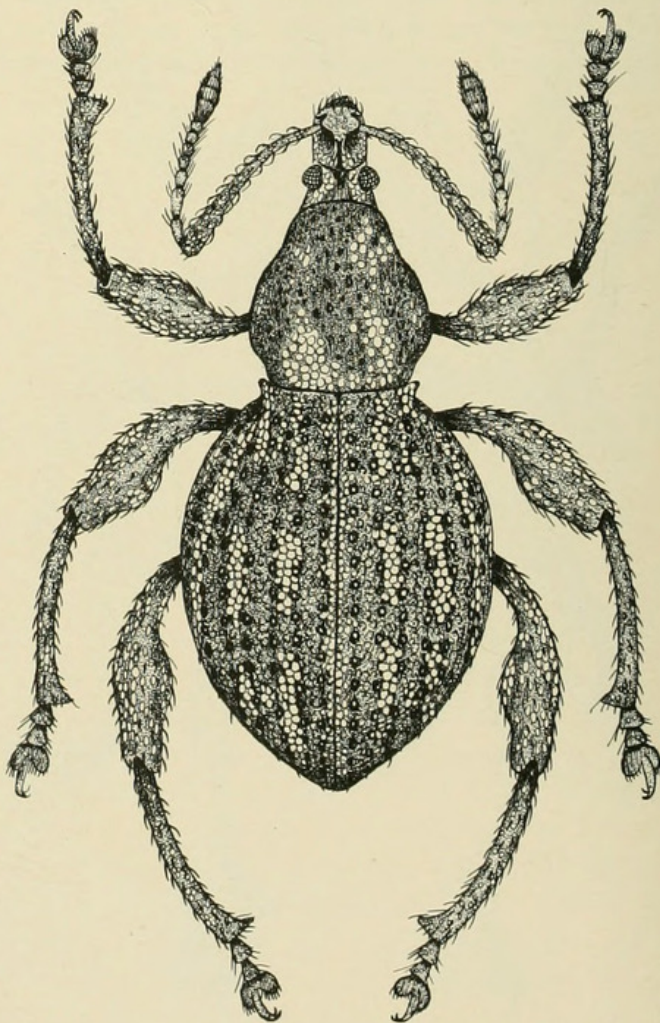


Fig. 23. *Trigonops minuta* n. sp.

Head and rostrum as long as prothorax, separated from rostrum by a curved carina slightly elevated and acute at junction of apical declivity sparsely covered with small, pale green scales. *Antennae* with scape densely squamose with decumbent setae which appear in circular rows; scape widening from proximal to distal end; funicle segments 1 and 2 longer than combined length of segments 3-5; club stoutly oval, as long as three preceding funicular segments; scrobes large, open dorsally. Eyes rather large, round, in contact with lateral rostral sulcus. *Prothorax* wider than long, broadest just back of middle; apex narrower than base; slightly constricted near apex; disc flattish, densely and rather coarsely punctured, scales same size as those on elytra. *Elytra* two-fifths of millimeter longer than wide, widest at middle, base slightly concave, humeral angle with prominent spine; disc convex with prominent interstrial punctures covered by pale green scales in irregular patterns, except a row of uniform scales along elytral suture; sparse decumbent white setae along lateral and declivitous portion of elytra; stria 10 approaching very closely to 9. *Legs*, with hind femora reaching to apex of elytra; densely covered with pale green scales; sternum, prosternum, and mesosternum densely covered with pale green scales, punctures and white decumbent setae. First and second ventrites covered laterally with pale green scales, 3-5 devoid of scales, fifth ventrite large with decumbent setae.

Length 3 mm; breadth 1.8 mm.

Type locality: Solomon Islands: Holotype, Shortland Island, Lofung, 9-X-1936; Collector R. A. Lever. Holotype and one paratype from Shortland Island, same data as holotype, also one paratype 659, Choiseul Island, Luti I-VIII, 1958, Collected by F. G. Fenemore, C. L. E. Coll. No. 16234, and one paratype Fauro Island, 89.3 all deposited in the British Museum of Natural History, London. Two paratypes deposited in Entomological Collection, Brigham Young University, 1-659 Choiseul Island, Luti, 1-VIII, 1958, Coll. F. G. Fenemore, and 1 Ysabel Island, March, 1932, Coll. R. A. Lever. One paratype Bougainville Island (S), Kokure, Nr. Crown Prince Rd. 900 m. June 11, 1956, deposited in the Bernice P. Bishop Museum, Honolulu, Hawaii (E. J. Ford, Jr.).

Remarks: The small size, humeral tooth, curved setae on scape and round, rather large eyes for a small species, serves to distinguish it from other *Trigonops* species of this study.

Trigonops irrorata Heller

K. M. Heller, Verh. Naturf. Ges. Basel XLV 1934, p. 20, 21, T. 1, Fig. 14

Fig. 24

Derm black, with iridescent, roundish scales. *Head*, rostrum narrow, but longer than head, sulcus falciform and deep extending laterally to scrobes, rostral carina narrow and prominent, declivity with small scales and erect setae. *Antennae* scape gradually widening from origin to apex, extending to middle of prothorax, segments 1-4 of funicle long, 5-7 shorter. *Eyes* rather flat, extending down on to rostrum similarly to that of *T. solomonis*. Club large as long as segments 5-7; setae on scape and segments black and bent in a circular shape. *Prothorax* narrow gradually widening from apex to base; apex slightly emarginate, base truncate, slightly widest at middle; with deep punctures on rather flat disc, median area without scales, an area of scales between median line and lateral margin; lateral margin without scales. *Elytra* with deep punctures, intervals narrow, scale pattern cross-wise except on median suture and at base; oval in shape, con-

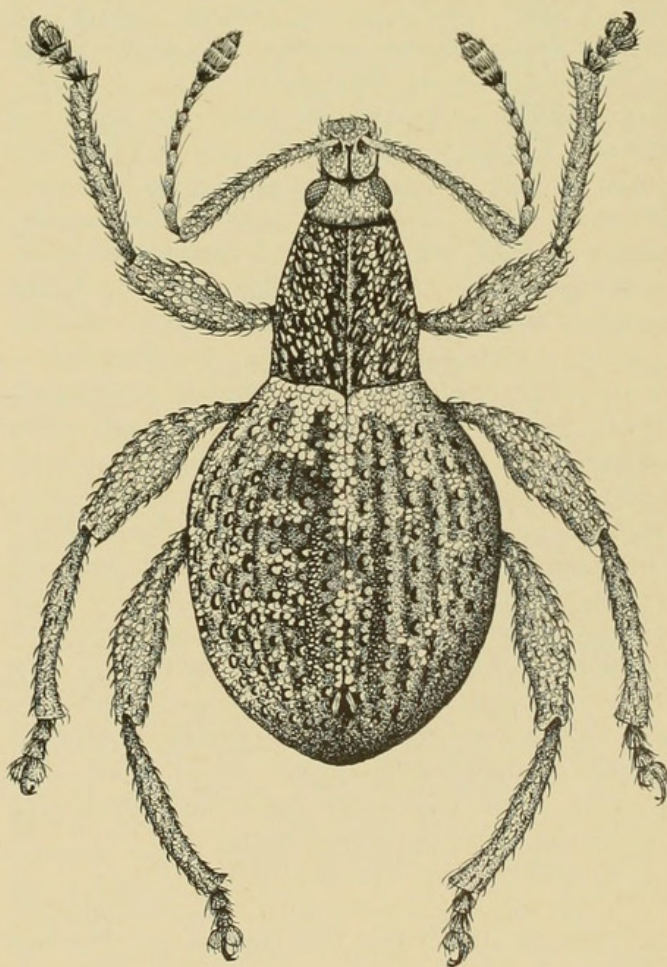


Fig. 24. *Trigonops irrorata* Hllr.

vex transversely; with tuft of setae on declivity. *Legs* black, femora swollen at posterior third, not reaching apex of elytra.

Length 4.5-5 mm; breadth 2.7-2.9 mm.

Type locality: Solomon Islands, Bougainville, 1930-2 (Dr. Staudinger and Haas).

T. irrorata is known to me, only through the kindness of Herrn Dr. Wilhelm Gotz of Dresden, who loaned me a single cotype specimen. The above description and Fig. 24 are based on it. I have examined hundreds of specimens of *Trigonops* from the Solomon Islands, but have not found a specimen of this species. All the cotype specimens of *Trigonops* were returned to the Dresden Museum.

The falciform rostral sulcus, rather flat eyes, narrow elongate prothorax and globose elytra serves to distinguish *irrorata* from other species of *Trigonops* thus far studied.

Trigonops solomonis Heller

Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 19

Fig. 25

Derm black with covering of greenish and blue scales. *Head* with long rostrum, carina fine and prominent closely covered with scales; scape of antennae bowed, enlarged at apex, not reaching middle of prothorax, funicular segments slender, segments 1-2 long, 4-5 one and one-half times as long as thick; *eyes* prominent and well down on side of head, apex pointing backwards, vertex of head with few small punctures, scales well separated. *Prothorax* longer than wide; greatest breadth near middle, surface of disc deeply punctured, lateral margins forming a sharp edge; mid-strip black, thickly punctured, apex concave at middle, width within one-tenth of elytra length giving elytra a globose appearance; elytra widest one third distance from base; slightly convex transversely; striae deep, punctures surrounded with a circle of small, greenish scales; intervals double width of striae; slight emargination near apex, female with tuft of setae on declivity. *Legs* prothoracic femora with club enlargement extending to apex; metathoracic femora not extending to apex of elytra, club poorly developed, ventrites stout, thick and marked with needle-like scratches, these segments somewhat concave in male.

Length 5.9 mm; breadth 2.9 mm.

Type locality: Solomon Islands, Bougainville Is. 1908 (Kurtz). This description and drawing was made from a cotype specimen from Staatlichen Museum für Tierkunde in Dresden, loaned

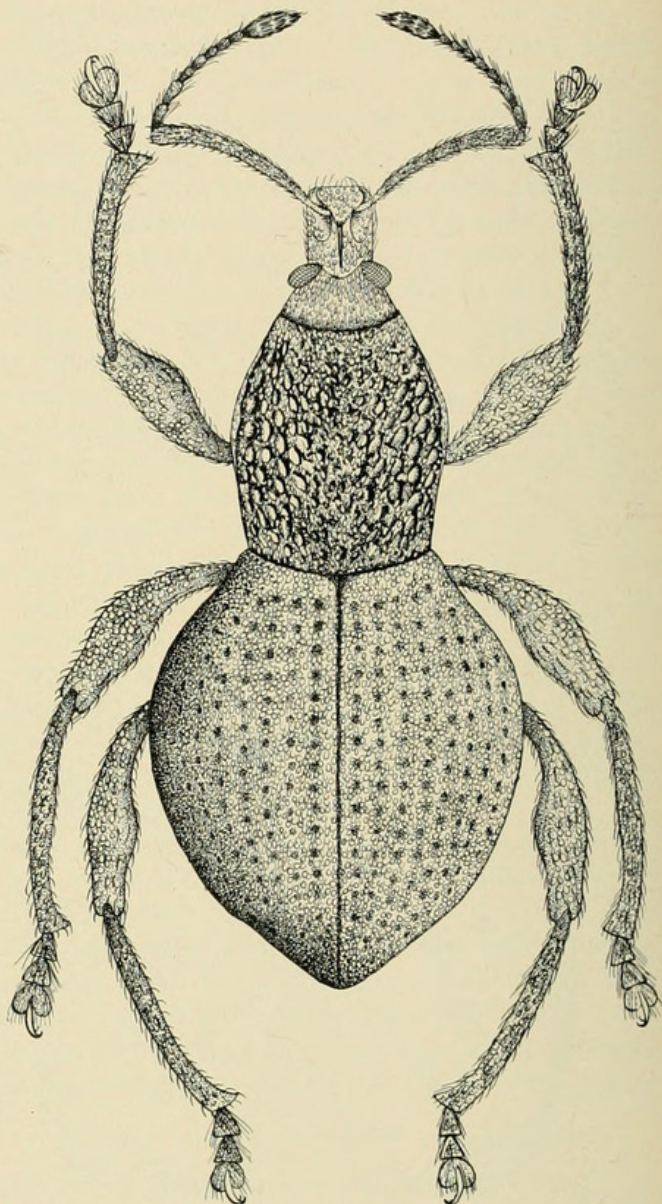


Fig. 25. *Trigonops solomonis* Hllr.

to the writer by Herrn Dr. Wilhelm Gotz, Hauptdirektor of the Museum.

Remarks: Heller points out that when *solomonis* and *froggatti* are compared with *forticornis* and *exophthalmus*, they vary sufficiently to be separated as a subgenus in the *T. rugosa* group. Lack of specimens precluded his making such a separation. *T. solomonis* is a distinctive species because of its rounded shape, size, lack of rostral hump, femoral club, and rugose prothorax.

Trigonops froggatti Heller

Heller, Wein. Ent. Zeit. XXIX, 1910, p. 189. Fig. 4

Fig. 26

Derm black, covered with green scales except on the prothorax where there are some scattered iridescent ones.

Rostrum longer than wide, separated from head by a V-shaped sulcus; carina as wide as distal end of scape, not elevated at rostral declivity which bears a few small green scales. *Antennae* scape bowed, becoming enlarged at distal end, scape short, extending only to anterior third of prothorax; segments 1-2 of funicle equal in length, and as long as segments 3-6 combined, club as long as segments 5-7; scales on scape black, setae on funicle. *Head* shorter than rostrum, eyes placed well on side of head, frons with small granules and a mixture of green-blue scales. *Prothorax* as wide as long, widest at middle constricted near apex; greatly sloping to base, apex and base truncate, strongly convex, with median line of small tubercles devoid of scales; covered mainly with green scales, intermixed with scattered iridescent and blue scales, punctures obscured by scales. *Elytra* about three-fourths as broad as long; base slightly concave, broadest before middle, rather evenly rounded laterally behind middle, pointedly narrowed to apex, disc convex; striae deep and distinct, each puncture surrounded by a rosette of scales, intervals 3-4 slightly elevated caudad. *Legs*, hind femora extending slightly beyond apex of elytra, densely squamose, setae obscure, club about three-fourths of distance from base

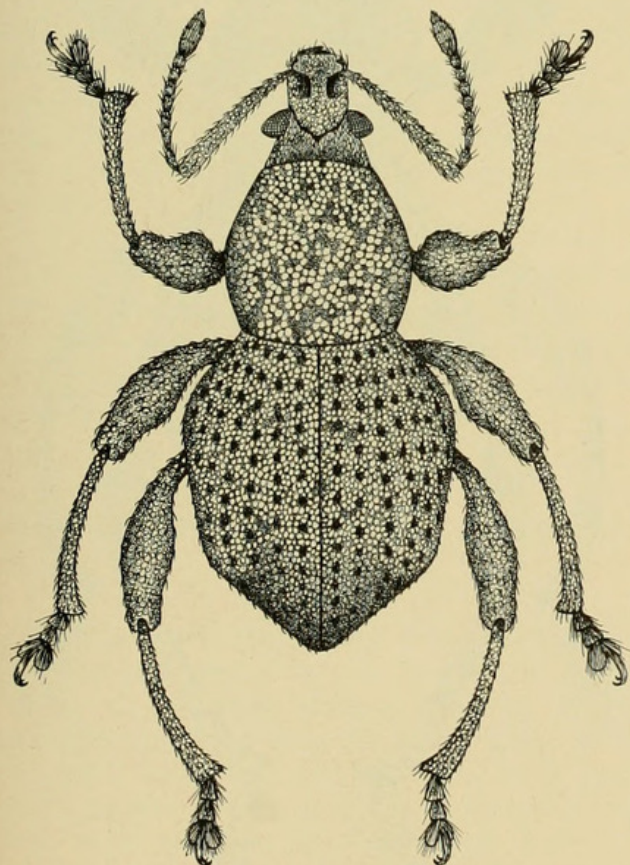


Fig. 26. *Trigonops froggatti* Hllr.

to apex and twice as broad as base, all legs black in color. Undersurface covered with green scales, except center portion of ventrites 1-2; 4-5, with setae sparse, white and decumbent.

Length 5.2-6.1 mm; breadth 2.9-3.1 mm.

Type locality: Solomon Islands, Russell Island, (W. W. Froggatt), July-August 1909.

Distribution of specimens of this study: Florida Islands: April 14, 1944 (Harry P. Chandler), September 1932 (R. A. Lever); Tulagi Island: January to October 1932 (R. A. Lever), April 22, 23, 1922 (E. A. Armytage), August 12, 1933 (H. T. Pagden); Guadalcanal Island: June 24, 1954, Reva Vatu (E. S. Brown), June 21, 1954; Kua Vatu (E. S. Brown), July 15, 1944, Tenasu River Area (D E. Beck); August 3, 1957 (P. T. Fenemore).

D E. Beck collected this species on a dead log near the Kulinigrass Area, R. A. Lever found it on hibiscus leaves, and H. T. Pagden reports it from coconut.

Heller points out that *froggatti* may be confused with *coerulescens* Blanch.

From the results of this study these two species are found to be quite different. In *froggatti* the rostral suture, and base of the rostrum are more angular and tumid; the prothoracic femora are shorter and more robust, the prothorax is widest at about the middle and with deeper punctures, and the elytra are less parallel and more apically pointed than in *coerulescens*.

Trigonops coerulescens Blanch

Blanchard, Voy. Pole Sud. IV, 1853, p. 232, Fig. 5

Fig. 27

Dern black, body completely covered with light blue scales.

Rostrum short, as long as head, heavy set, declivity at apex wide with small blue scales, long white setae laterally, conical elevation at apex of carina, basal area with blue scales and white setae, separated from head by a curved V-shaped sulcus. *Antennae* large, scape reaching to middle of prothorax, rotund, same diameter throughout, covered with blue scales and low lying white setae; funicle segments 1-2-3 elongate oval, segments 4-7 shorter and smaller, club downy, slender, as long as segments 5-7 combined, segments with long gray setae. *Head* convex, scaly, lightly striated in middle, punctures few and small; eyes large, not strongly convex, slightly inclined posteriorly. *Prothorax* with greater breadth than length, widest at middle, base and apex truncate; slightly constricted

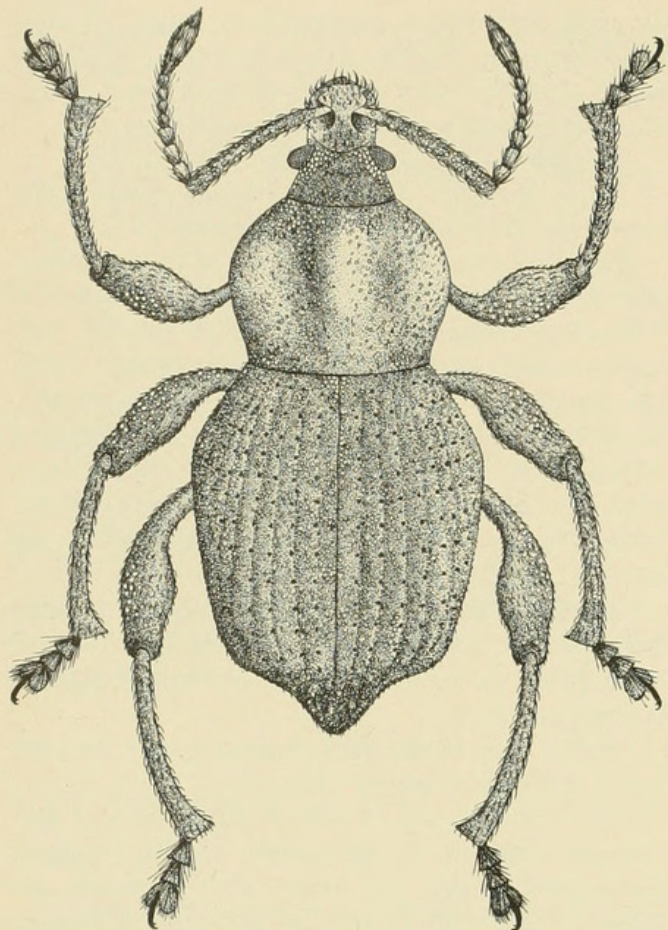


Fig. 27. *Trigonops coerulescens* Blanch.

near apex, lateral margins elevated; center of disc flat, with slight elevation toward apex; surface rough due to small tubercles and punctures; stripes of blue scales border the median area. *Elytra* widest near base; tapering to a slender apex; elevated near declivity along 5-6 striae, central part of disc flat or slightly cupped; punctures deep covered with scales, intervals prominent, declivity abrupt. *Legs*, femora clubs large, scales sparse, color reddish-brown, not reaching end of elytra, underside of body with blue scales, except ventrites 3-5; ventrite 5 with white setae.

Length 7.8 mm; breadth 4.1 mm.

Type locality: Solomon Islands: Saint George Island, 1941 (H. Gúerin). Specimens available for this study: Guadalcanal Island: -3 specimens from Wanderers Bay (Woodford). Two specimens in the British Museum of Natural History, London, England. One specimen in the Brigham Young University Entomological Collection.

T. coerulescens may be readily recognized due to the following characteristics: the conical elevation at apex of rostral carina; wide prothorax; elytra with lateral elevations and cupped center, abrupt apical emargination, and its size. This species resembles *carinithorax* in the shape of the prothorax and elytra. The eyes, sulcus of

rostrum, antennae, scale color and shape are different.

Trigonops marshalli n. sp.

Fig. 28

Body derm black, clothed blue and green scales.

Rostrum as broad as long, as long as head, carina short, narrow, and tumid at base, with a small elevation at declivity which bears a few small scales; sulcus crescent-shaped with a fovea at apex of head; scrobes deep and open. *Antennae* scape slender, enlarged a little at apex, segments 1-3 of funicle elongate and equal, segments 4-7 obpyriform, club as long as 5-7 combined. *Head* punctate with waved lines converging on apical fovea, and with small scales. *Eyes*

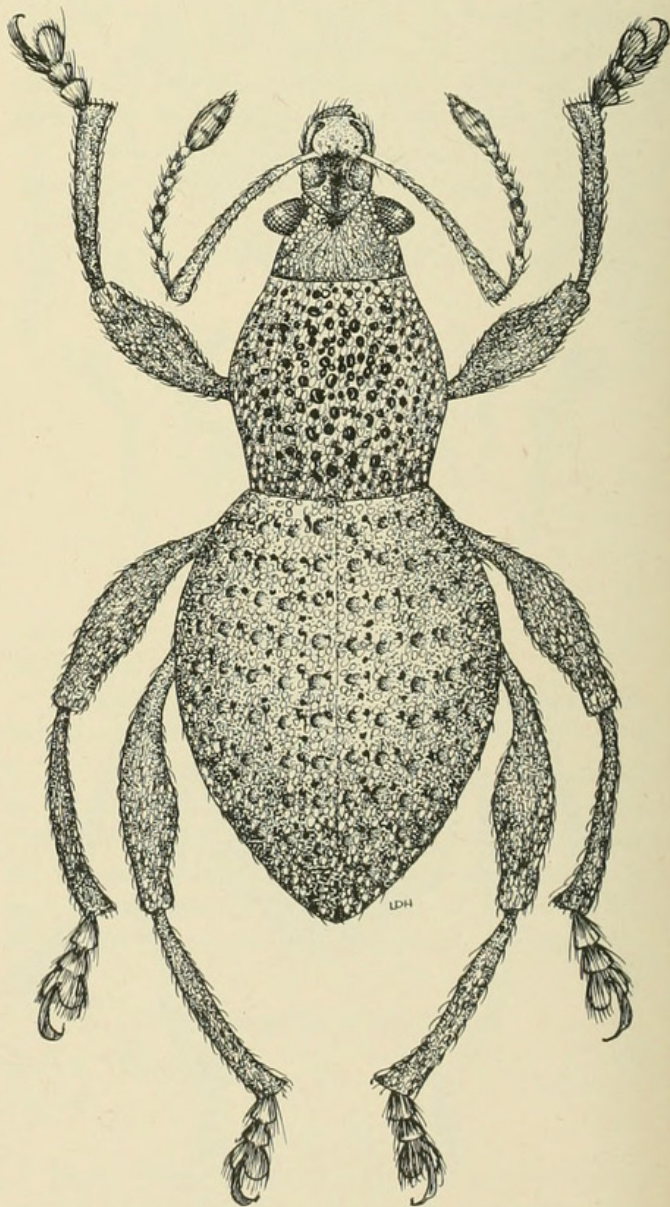


Fig. 28. *Trigonops marshalli* n. sp.

prominent, conical, tapering part directed backward. *Prothorax* wider than long, greatest width at middle, base and apex truncate; constricted slightly near apex; convex transversely; surface closely tuberculate, tips of tubercles black, shining; scales sparsely placed on interspaces. *Elytra* ovate, longer than wide, greatest width at middle, punctures deep with cluster of scales and small, black tubercles showing through from intervals between punctures; lateral emargination at apex of elytra; femora, tibia and tarsus with blue or green scales; ventrites 1-2 covered laterally with scales, 3-5 scaleless, with small setae.

Length 4.5-5.2 mm; breadth 2.5-3.0 mm.

Type locality: Solomon Islands; Holotype, Santa Isabel Island, B. S. I., Soasokera, X-19-1960 (J. Tuhua); Allotype, Santa Isabel, II-1933 (R. A. Lever); 11 Paratypes, Santa Isabel Island.

Allotype and three paratypes deposited in the Entomological collections of the British Museum of Natural History, London. Holotype and three paratypes deposited in the Entomological Type collection of Brigham Young University, Provo, Utah; paratypes deposited in the Bishop Museum, Honolulu; U. S. Natural Museum, Washington, D. C., and California Academy of Science, San Francisco.

T. marshalli is a distinctive, handsome species. The color of the scales, scape of antenna slender, prominent elevation on the rostral carina, wavy lines on the vertex of head, shining tubercles on the prothorax and elytra, ovate shape of the abdomen and size characterize this species.

I am pleased to dedicate this species to the memory of Sir Guy Marshall, distinguished authority and student of the Circulionidae, and as an expression of my appreciation for his cooperation and suggestions at the inception of this project.

Trigonops exophthalmus Heller

Heller, Wien Ent. Zeit. XXIX, 1910, p. 187.

Fig. 29

Derm black with small blue-green and or white scales, rostral suture curved and slightly V-shaped, prothorax globose. Rostrum one and one-half times as long as wide, sides parallel, basal union of rostrum with head tumid and circular, carina slightly elevated at narrow area between scrobes, small scales on rostral declivity. *Antennae* scape bowed, enlarging toward apex, extending gradually to

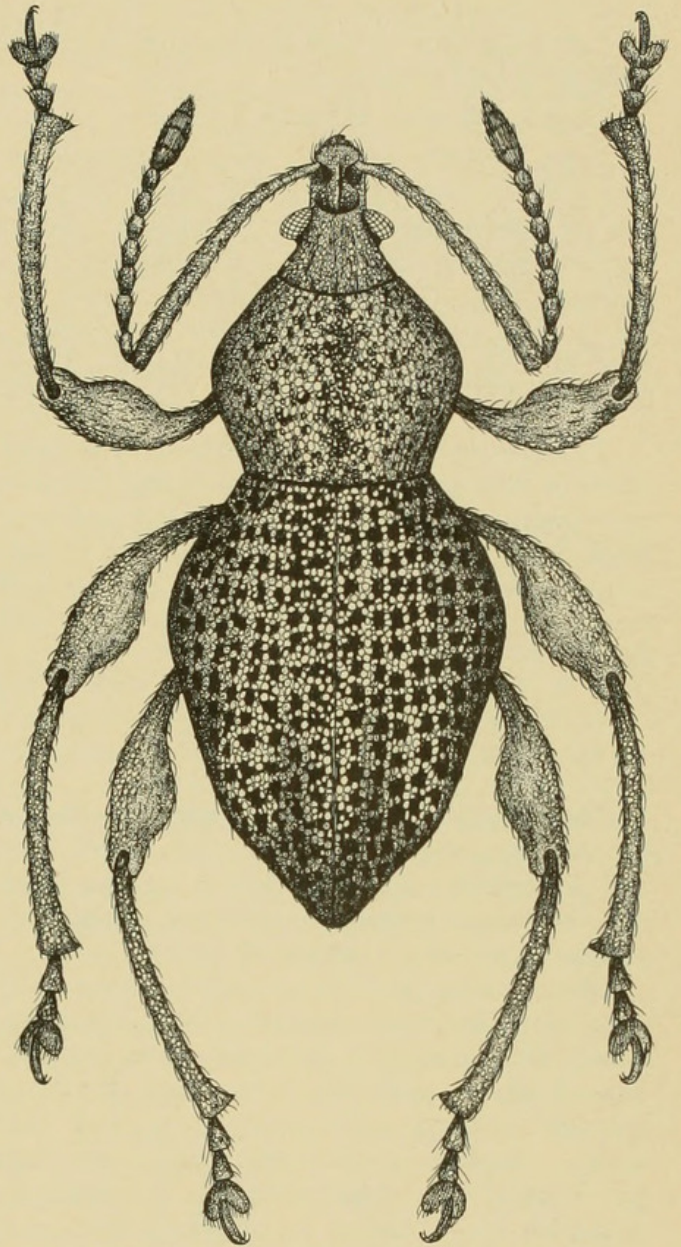


Fig. 29. *Trigonops exophthalmus* Hllr.

middle of prothorax, segments 1 and 2 of funicle slender and equal in length, club longer than three preceding ones. *Head* slightly convex, frons heavily scaled with small scales between rugose surface and small granules; eyes prominent, their crowns receding and rounded. *Prothorax* globose, widest before middle, retracted near apex, wider than long, small, black granules showing through scales, short median carina, punctures obscured; base and apex truncate. *Elytra* widest just before middle, three-fifths as wide as long, elevated on 4-5 striae, flat along elytral suture in males, punctures deep and prominent, scales around punctures and along intervals, apex pointed. *Legs* reddish, femora club bear except dorsal surface covered with scales and white setae, femora not reaching apex

of elytra, under surface sparsely clad with scales. Ventrites 1-2 bare except on margins, 3-5 with small, blue and white setae.

Length 7-8 mm; breadth 3-4.2 mm.

Type locality: Solomon Islands: Russell Island (W. W. Fraggatt) VII-VIII, 1909. Distribution of specimens studied: Malaita Is., Kualo district, Oct. 19, 1957 (P. G. Fenemore); Su'u-Baunani, May 1933 (R. A. Lever); Russel Is., Hui 1. Feb. 18, 1934 (R. A. Lever), Tulagi Is., May 28, 1922 (E. A. Armytage); Malaita, Tang-talau 150-200 m. Sept. 25, 1957 (J. L. Gressitt).

T. exophthalmus is characterized by a basal union of rostrum with head tumid, and circular; eyes prominent, their apices rounded and projected backward; club of antennae elongate, segments slender and short; prothorax globose and proximal portion of hind femora long and slender.

Trigonops becki n. sp.

Fig. 30-31

Derm black, with roundish scales, elevated in the center, green in the main, with a few blue and iridescent ones interspersed on the head, rostrum, scape, prothorax, ventrites, except segments 3-5 which are devoid of scales.

Head twice as wide at base as apex, eyes prominent. Rostrum longer than broad, parallel-sided, with a median area extending from V-shaped union with head to apical declivity, sparsely covered with small green and blue scales. Median scrobal area separated from the declivity by a slight elevation. Scrobes large. Antennae scape almost as broad at base as at apex, reaching middle of prothorax, with decumbent black and light-colored setae, green and bluish scale; funicle segments 1-2 as long as segments 3-5 combined, segment 1 thicker than 2, club rather stoutly oval, shorter than preceding three funicular segments. Prothorax slightly broader than long, gently rounded laterally, widest a little beyond middle, dorsum convex longitudinally, sparsely convexed with scales along middle, punctures distinct, surrounded by cluster of scales, each puncture with small decumbent setae. Elytra ovate, acuminate behind in male, more so in female, slightly emarginate at base. Three-fourths as broad as long; more than one-third wider than prothorax, broadest before middle, 10 striae well developed, punctures large, deep, densely surrounded by scales on interspaces, and especially area along elytral suture, tuft of setae on declivity of female, fourth and fifth striae distinctly elevated and carinate,

before declivity in male, sparse light setae on apical area of elytra. Legs with hind femora reaching to slightly beyond apex of elytra, femora and tibiae densely covered dorsally with small, green scales, ventral surface of tibiae scaleless, but with light setae in male. Femora in female reaching fifth ventrite, femora in both sexes bulbous, proximal portion of hind femora twice as long as bulbous area. Exposed portion of legs brownish. Trochanter, prosternum, mesosternum, and metasternum covered with green scales; middle of ventrites 1 and 2 sparsely covered with scales, scattered short seta issuing from each puncture, in some males these ventrites rather rugose. Female genitalia elongate, small, more or less membranous structure. When fully extended it is as long as the total length of the five ventrites. The styli are at the apex of the coxites and terminated by a long setae; the genital structure similar to that found in species of *Pantomorus*.

Named in honor of Captain D Elden Beck who devoted much of his time and energy in

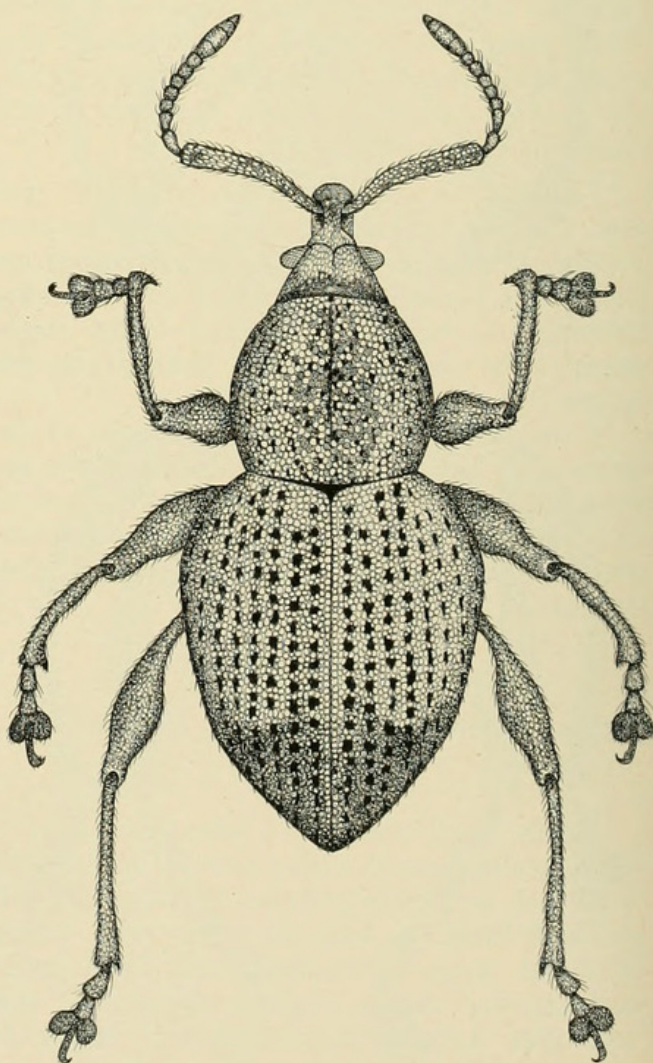


Fig. 30. *Trigonops becki* n. sp.

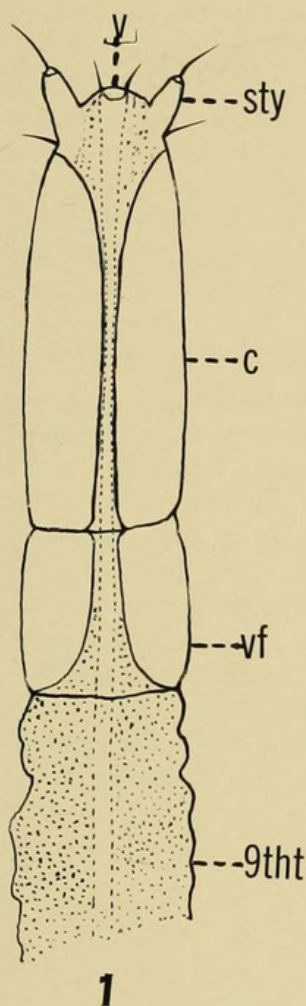


Fig. 31. *Trigonops becki* n.sp. - ♀ genitalia.

collecting and sending a representative collection of insects and reptiles from Guadalcanal Island to his Alma Mater, the Brigham Young University.

Type locality: Solomon Islands: Holotype: ♀ Guadalcanal Island, Tenura River Area, 1944 (D Elden Beck); Allotype ♂ same data as holotype; paratypes: 19 ♀♀, Guadalcanal, Teneru River, Henderson Field Area, 1944-45 (D Elden Beck, E. Ramey, J. Johnson); 8 ♂♂, Guadalcanal Teneru River Area, 1944-45 (D Elden Beck, Ernest Reimschuessel); 1 ♀ Guadalcanal, May 1, 1922 (E. A. Armytage); 3 ♀♀ Teneru River Area, June 16 and December 16, 1957; 3 ♀♀ Honiara District, Kukum, December 15, 1957 (P. G. Fenemore); 2 ♀♀ Guadalcanal Tunga River Bridge, August 23, 1960 (Jan Schenk); 1 ♀ Guadalcanal, Kua Vara, June 21, 1954 (E. R. Brown); 1 ♂ Malaita, su-u Baunani, April, 1933 (R. A. Lever). The type specimens and some paratypes are in the Brigham Young University Entomological Type Collection. Paratype specimens have been deposited in the British Museum of Natural History, London; the United

States National Museum, Entomological Collection; the California Academy of Sciences, Entomological Collection; and the Entomological Collection, Bishop Museum, Honolulu, Hawaii.

This common weevil species was collected mainly on trees and in the forests. Beck found a number of specimens in a cluster of seeds on a leguminous tree, on large leaves of a forest plant, on the bark of a dead tree, and by sweeping the forest shrubs. H. T. Pagden collected *becki* on coconut trees; E. Ramey collected them by sweeping in the forest jungle.

Trigonops platessa Heller

Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 19

Fig. 32-33-34.

Derm black with cinereous, iridescent and some blue scales. Head slightly wider at base than apex; rostrum as long as wide, sulcus separating head from rostrum, crescent shape; scrobes large, rostral ridge reduced to one-third width of rostrum; scales sparse on rostral declivity; antennae scape large at base, filling scrobel cavity, not reaching middle of prothorax, as large at apex as at base; covered dorsally with blue and green scales and decumbent setae; first funicle joint elongate, greater in diameter than following short round segments, club as long as three preceding segments. Eyes moderately convex, pointed posteriorly. Prothorax considerably wider than long, widest at posterior third, dorsum flat transversely sloping towards apex, margin somewhat irregular due to close rather deep punctures which bear decurved setae; median space slightly keeled, bordered with small black granules, base and apex truncate, slightly constricted near apex. Central portion of disc with small green and blue scales, marginal scales larger and cinereous. Elytra widest at apical fourth sloping to declivity at posterior fourth; pointedly narrowed to apex; intervals 4-5 slightly elevated caudad, more so in males, which results in a longitudinal concavity; stria 10 with small punctures, curved due to lateral emargination of elytra, scales mainly on intervals, striae punctures distinct, with small black granules along side of punctures, female with tuft of setae on suture at declivity. Legs, hind femora not reaching the apex of elytra; club of femora heavily covered by cinereous and green scales, hind tibia straight, middle and front tibiae slightly curved. Dorsal lateral margin of the mesothorax with a prominent conical elevation; ventral lateral portions and posterior margin of ventrites 1-2

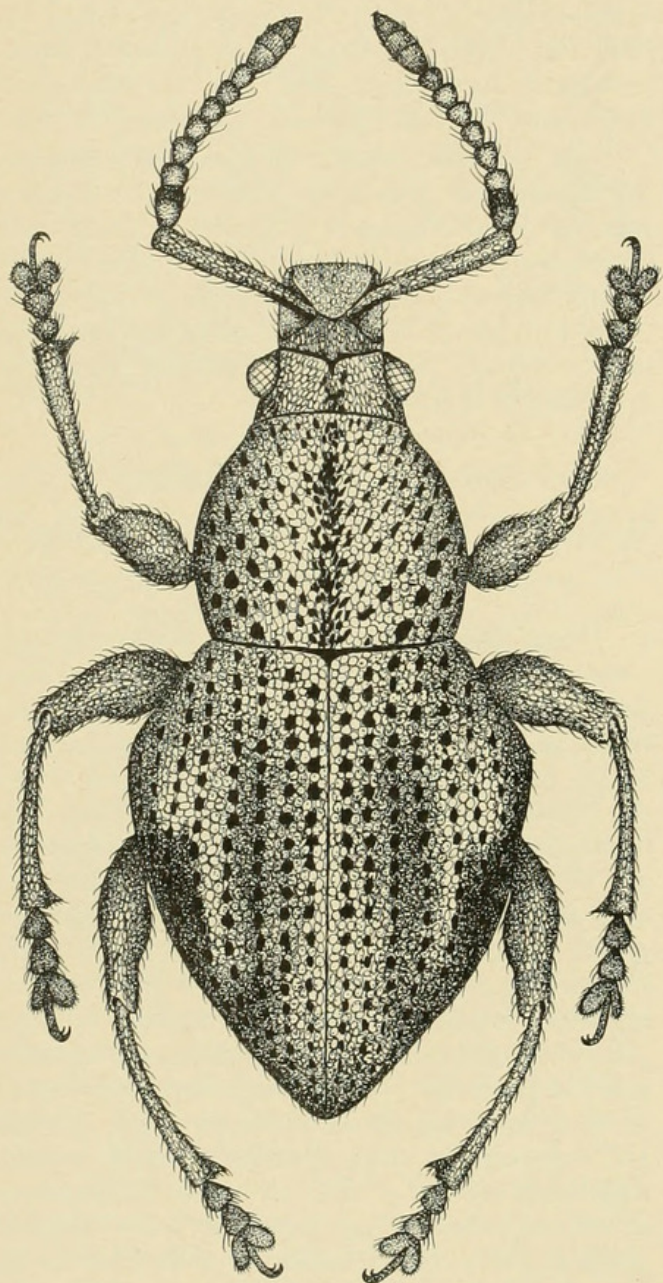


Fig. 32. *Trigonops platessa* Hllr.

with cinereous and green scales, punctures sparse. Ventrites 3-5 sparsely punctuate, with setae on 5.

Length 8.1-9.2 mm; breadth 3.2-4.9 mm.

Type locality: Solomon Islands (Dr. Staudinger and Bang Hass supplied a single damaged specimen.)

Distribution of specimens studied: Guadalcanal: Tengeru River Area, 1944-45 (D E. Beck, Ernest Reimschuessel, E. Ramey, and Doyle Taylor); Tunga River Bridge, and Nalimbu River, July-August, 1960, (Jan Schenk); Honiara District, Kukum, January 27, 1957 (P. G. Fennimore); Wanderers Bay (data and collector not known); Florida Island: April 15, 1944 (Harry P. Chandler).

T. platessa is a common species around the Henderson Field area. Beck, Reimschuessel, Ramey, and Taylor collected 150 specimens. Practically no information dealing with the host plants or the life history of this species is available. Captain Beck did report collecting specimens of *platessa* "on the under-surface of a dead log," "found on all the plants of the forest and on the yellow hibiscus tree," "on the leaves of the torch ginger plant," and, "at random in the forest." Ramey collected many specimens of this species in the "jungle forest."

Since so few specimens of most of the species dealt with are at hand, the study of the genitalia has been limited to a few species. A number of specimens of *platessa* were dissected. The female ovipositor is one of the elongate type. When fully extruded it is as long as the insect abdomen. The ninth segment, valvifer and coxite are partially sclerotised making it possible to have it folded in the body cavity until in use when depositing eggs. The spermatheca of *platessa* is distinctive, differing in detail from that

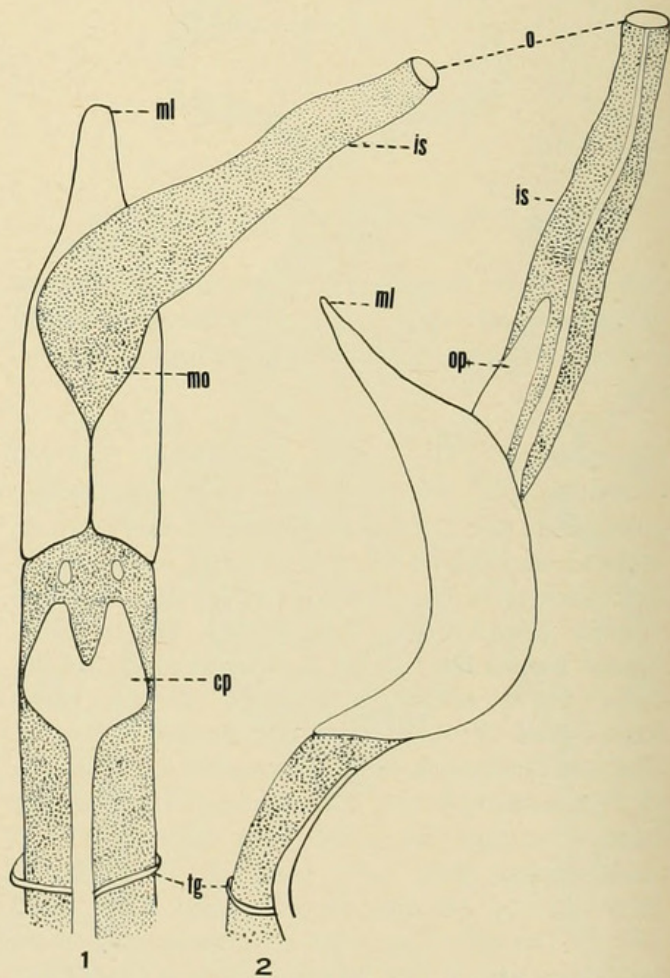


Fig. 33. *Trigonops platessa* Hllr. ♂ genitalia o-orifice of internal sac; ml-median lobe; mo-median orifice; tg-tegmen; op-orificial plate; is-internal sac; cp-cap-piece of tegmen.

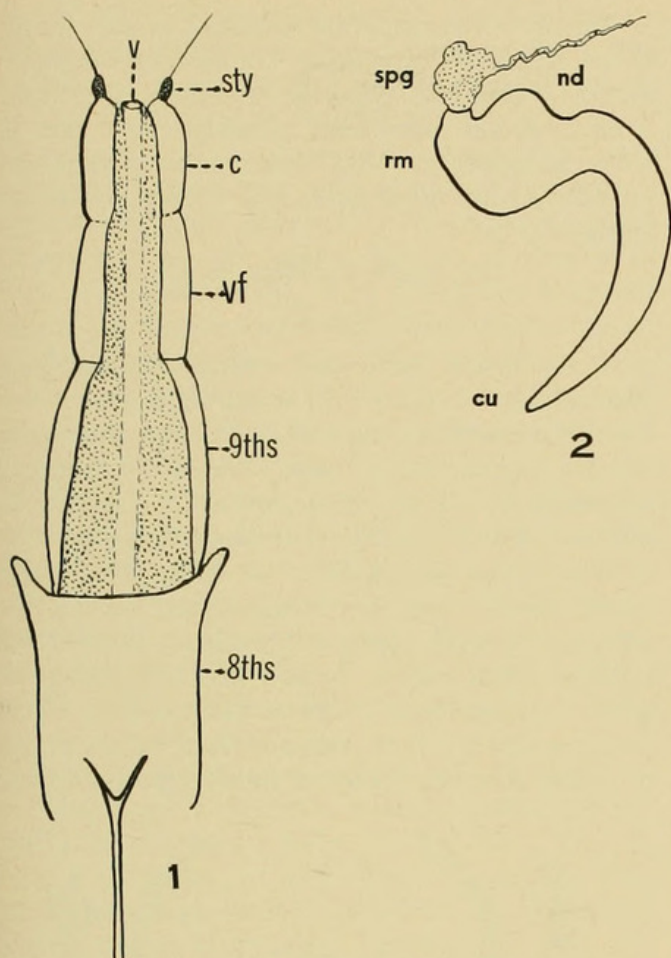


Fig. 34. *Trigonops platessa* Hllr. 1 ♀ genitalia and 2 spermatheca sty-stylus; c-coxite; vf-valvifer; 9ths-ninth sternite; 8ths-eight sternite; spg-spermathecal gland; nd-nodulus; rm-ramus; cu-cornu.

found in other species of this genus. The internal sac of the male genital tube was successfully extruded as shown in Fig. 33.

These structures serve as a pattern of the genitalia found in other species of *Trigonops*.

T. platessa is rather uniform in size, the females a little larger than the males, rostral space between the scrobes narrow; rostral base tumid, sulcus straight, eyes prominent, not conically pointed, prothorax wider than long; elytra widest near the humerus, transversely concave, intervals 4-5 elevated at declivity and with conical elevation on the dorsolateral margin of the mesothorax. This species is similar in many respects to *T. coerulescens*.

Trigonops granulosa n. sp.

Fig. 35

Body derm black, legs, antennae and tip of rostrum reddish-brown, clothed with sparse small round brown and some gray scales.

Rostrum as long as head, separated from head by a lunulate suture; base of rostrum tumid and punctate, corina short terminating at declivity in a small elevation, declivity sparsely punctate and free of scales; rostrum narrow, scrobes small, separated by width of distal end of scape. *Antennae* slender, scape reaching anterior two-fifths of prothorax; funicle segments 1 as long as 2, 3 almost as long as 2; 4-7 mainly obpyriform, club as long as 5-7 combined; small punctures and colorless scales on scape, none on funicle, setae short, bowed and brownish in color. *Head* very rugous, frons concave near junction with rostral suture, forming a shallow depression, small brown scales on elevated thickened lines;

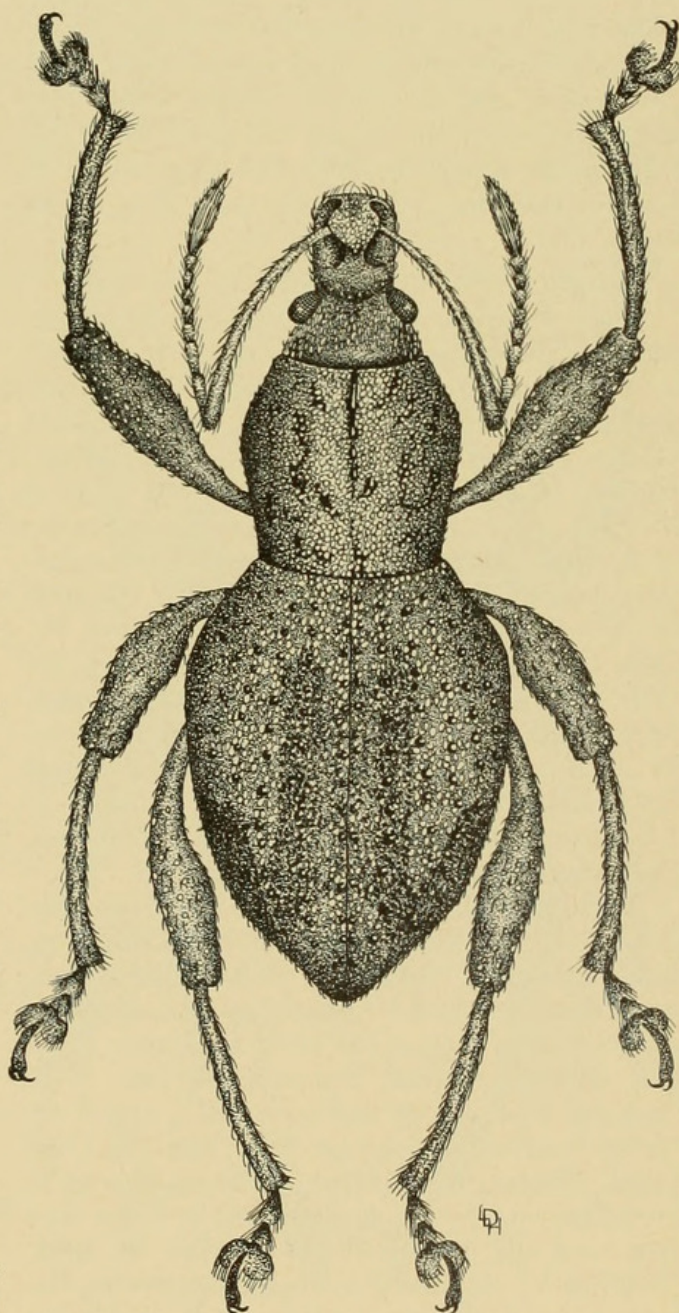


Fig. 35. *Trigonops granulosa* n. sp.

eyes round, slightly conical. *Prothorax* as wide as long, greatest width at middle, base and apex truncate, entire surface granular, each granule with polished apex and separated by deep punctures and lines; brownish, iridescent scales placed irregularly on granules, convex transversely, sloping longitudinally from center of disc to apex and base. *Elytra* subovate, three-fourths as broad as long, broadest before middle, flat or concave on basal disc, becoming concave along elytral suture and between fourth intervals, which in some specimens become slightly to greatly elevated at declivity and rather precipitous in some others; elytra emarginate near acuminate apex; 10 striae, tenth narrow and close to ninth, striae punctate; intervals narrow, each with a row of black, shining granules, scales few, brown to iridescent in color. *Legs*, femora not extending beyond end of elytra; club near apical end of femora; brown scales and short white setae on femora and tibia. Ventriles 1-2 connate except laterally free from scales in middle, ventrites 3-5 narrow, with few or no scales.

Length 4.8-6.0 mm.; breadth 2.5-3.1 mm.

Type locality: Solomon Islands: Holotype, Florida Island, April 4, 1944 (Harry P. Chandler); Allotype: Florida Island, April 4, 1944, 100 feet, 4-paratypes, Florida Islands, April 15, 1944 (Harry P. Chandler); 1-Florida Island, Tulagi, January, 1933 (R. A. Lever); 1-Isle of Savo, April 25, 1922 (E. A. Armytage); 1-Kalambangara Island, April 4, 1922 (E. A. Armytage); 1-Guadalcanal Island, Upper Matanikau R., Jan. 26, 1958 (P. G. Fenemore); 3-Guadalcanal Teneru R., 1944 (D. E. Beck), 1-Guadalcanal Teneru R., 1945 (E. Reimschuessel); 6-Guadalcanal Island, (Suta-Gold Ridge) Jonapau Mt. 1000 M., June 29, 1966 (J. L. Gressitt). 1-Guadalcanal Island Gold Ridge, March 21, 1955 (E. S. Brown); 1-Guadalcanal Island, Popaner, 3000-5000 feet, December 1934 (R. A. Lever, C. Bird).

Holotype, allotype and four paratypes deposited in the Entomological Type Collection, Brigham Young University, Provo, Utah. Paratypes deposited in the Entomological Collections of the British Museum of Natural History, London; Bishop Museum, Honolulu, Hawaii; U. S. National Museum, Washington D.C., and California Academy of Sciences, San Francisco, California. Captain Beck collected two specimens of *granulosa* under an overturned log in a cut over area near the Teneru River on May 30, 1944. No other information is available concerning the habitat or conditions under which specimens were collected.

There is considerable variation in the shape of the elytra of this species. The slender, reddish-brown antennae, shape of the eyes, furrowed frons, rugose prothorax, granules and brown scales on prothorax and elytra serve to separate *granulosa* from other species of *Trigonops* of this study.

Trigonops isabellae n. sp.

Fig. 36

Body derm black and reddish-brown, legs and antennae brown with scales light green and some brownish and cupreous. *Rostrum* short and narrow, slightly longer than head, scrobes large, separated by narrow ridge, which is elevated at junction with declivity. *Antennae* scape narrow at base, expanded a little at apex, with some small scales, and low-lying setae; sulcus V-shaped, laterally joining posterior portion of scrobes. *Head* rugose densely covered with pale green and cupreous scales; a distinct line, separating scales on frons, extends from acute angle of sulcus towards vertex of head; eyes practical-

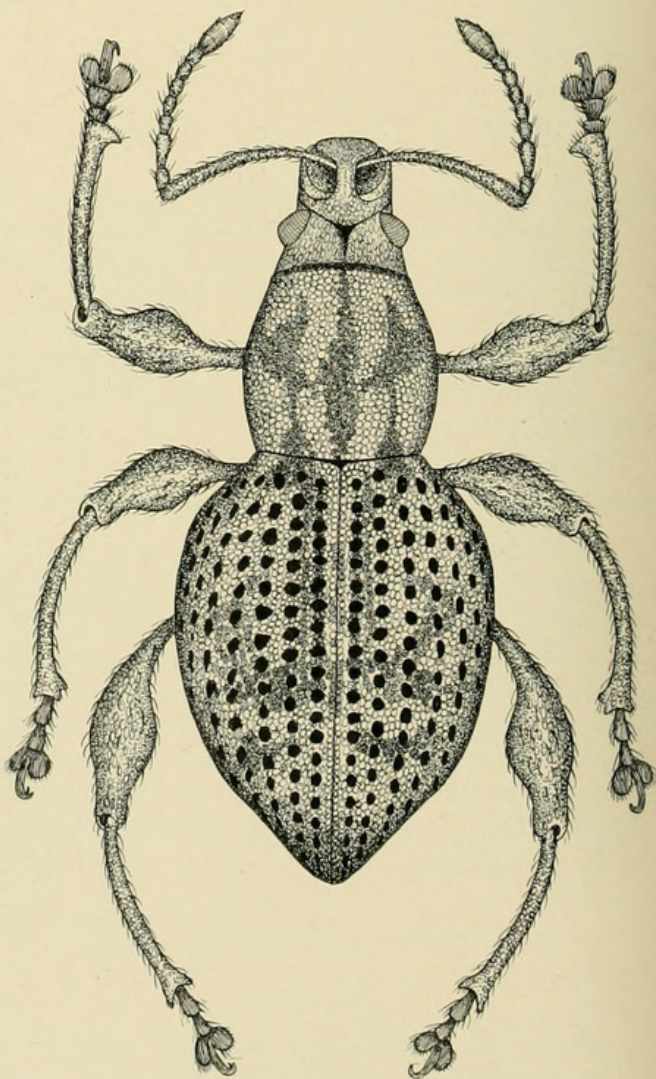


Fig. 36. *Trigonops isabellae* n. sp.

ly round, only slightly conical, separated from the rostral sulcus by a row of scales. *Prothorax* as long as wide, greatest width at middle, gradually rounding from middle to apex and base, slight constriction near apex; base and apex truncate; transversely convex; dorsum punctate, granulated, and covered with cupreous, pale green and brown scales; pattern as shown in Fig. 36. *Elytra* ovate, with 10 striae, striae 10 complete, but narrow and very near edge of elytra; greatest width near base; punctures deep with small granule on septa partially obscured by scales; scales mainly pale green with some brown and iridescent ones near base and on disc of elytra, transversely convex tapering from declivity to a point at apex. *Legs*, femora and tibia densely covered with round, pale green scales and white low-lying setae. Venter with scales, ventrites 1 medium area with few deep punctures, devoid of scales; 2 lateral and posterior portion with small scales and setae, 3-4-5 without scales and setae.

Length 5-6.9 mm; breadth 2.5-3.1 mm.

Holotype ♀ Solomon Islands; Ysabel Island, Margine Lagoon, February 8, 1955 (E. S. Brown); allotype ♂ same data as holotype. Two paratypes same data as holotype; six paratypes Ysabel Island, Huhurangi, February 18, 1956 (E. S. Brown); eight paratypes, Guadalcanal Island, 1944 (D. E. Beck); one paratype Florida Island, March 1945 (John Stuntz); one New Georgia Island, Segi; no other data.

Holotype, allotype and eight paratypes deposited in the Entomological Collection, Museum of Natural History, London, England; two paratypes, Bishop Museum, Honolulu, Hawaii; two paratypes, Entomological Collection, California Academy of Science, San Francisco; two paratypes, Entomological Collection, U.S. National Museum, Washington, D.C.; eight paratypes in the Entomological Collection, Brigham Young University, Provo, Utah. *T. Isabellae* is characterized by a short, slender rostrum, scape of antennae slender, small subconical round eyes separated from the rostral suture by a row of scales, pale green and iridescent scales on the body, scale pattern on the prothorax and elytra, (Fig. 36), with deep rather widely separated punctures on the elytra, and on obovate body.

Trigonops carinithorax Heller

Heller, Verh. Naturf. Ges. Basel XLV, 1934, p. 20

Fig. 37

Derm black with ash-colored scales. *Rostrum* as long as head, ridge with sharp carina, termi-

nating in a slight elevation at declivity; declivity finely punctured, with small gray scales near apex; sulcus curved, extending to posterior border of scrobes; antennae scape bowed near origin, same diameter throughout, reaches middle of prothorax, funicle segments pyriform, 1-2 longer than discal ones. *Head* sloping rapidly from apex to sulcus, short carina from middle of frons to sulcus, lightly rugose, small granules densely covered with gray scales. *Eyes* round, convex, placed well down on lateral side of head, separated by 1 mm from rostral sulcus. *Prothorax* wider than long, subcircular, slightly convex transversely at middle, sloping longitudinally from center to base and apex, constricted near apex; base and apex truncate, densely covered with small scales and decumbent setae which obscure to some extent granules and punctures, lateral areas deeply punctate and with some iridescent scales; median carina shiny black, not so densely covered with scales as balance of prothorax. *Elytra* with greatest width near

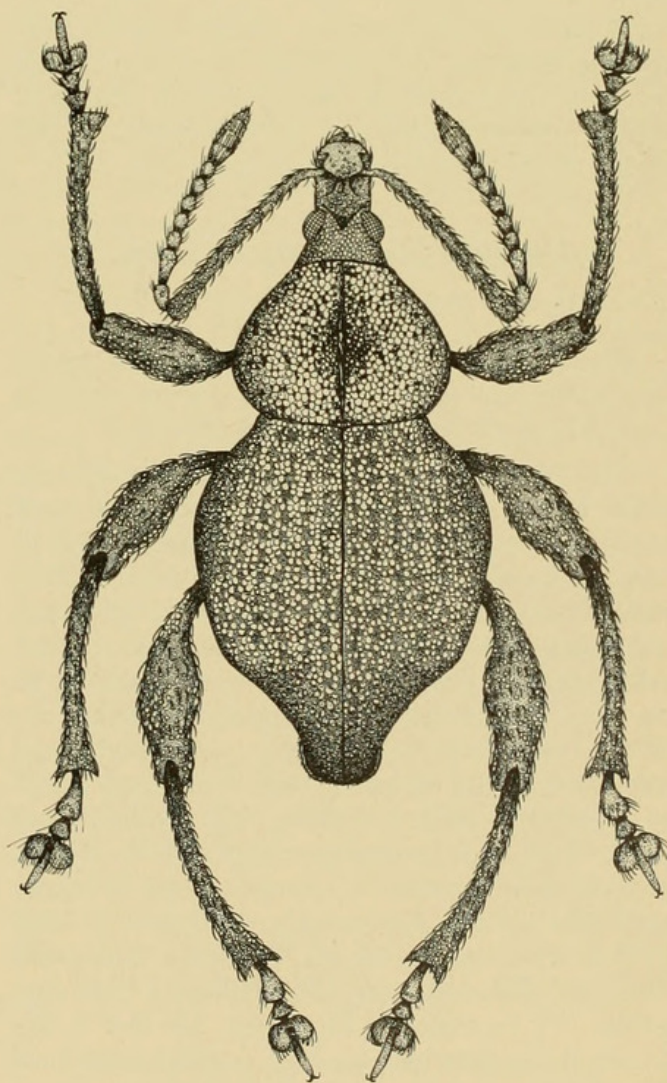


Fig. 37. *Trigonops carinithorax* Hllr.

humerus, interval 6 elevated near declivity, emarginate at posterior area, termination rather acuminate, sutural area slightly concave, striae punctate, intervals densely covered with scales; female with tuft of setae on declivity; transversely convex and only slightly elevated. *Legs*, femora extending to tip of elytra, femora and tibia densely covered with ash-colored scales and setae, ventrites 1-2 covered with scales laterally, free from scales in median area, no punctures and only a few setae; 1 with greater breadth than 2; 5 as wide as 3-4.

Length 8.5-9.8 mm; breadth 3.5-5 mm.

Type locality: Solomon Islands: Bougainville Island.

Specimens studies: One cotype from Bougainville Island loaned from Museum für Tierkunde in Dresden, and five other specimens from Bougainville; 1 Kieta IX-X-1937 (J. L. Froggatt); 1 Simba Mission, VI-28-VII-22, 1956 (B. J. Ford, Jr.); 1 Bougainville Is. VII, 1945 (A. J. Walz), and 3 Bougainville Is. - no other data.

T. carinithorax is readily separated from other species included in this study by the roundish ash-gray scales, shape and width of the prothorax, elevated fifth and sixth intervals of the elytra at the declivity, and its size.

Trigonops bougainvillensis n. sp.

Fig. 38

Dern black, with small, round, green scales on body, antennae, legs and venter, except medial area of ventrites 1-2 and all of 3-5.

Head as long as rostrum, separated from rostrum by a curved sulcus, eyes prominent and round; trace of a carina extending from apex to rostral suture ending in a fovea; scales thickly placed around eyes and rugose lateral and venter areas. *Rostrum* deeply incised by scrobes with trace of precipitous carina, terminating in an angular elevation at junction with the declivity, declivity precipitous, punctured near apex and devoid of scales. *Antennae* scape deeply punctured and with long, light-colored and short, dark setae; scape reaching middle of prothorax; distal expanded; funicle as long as scape, segments 1-2 equal in length, combined as long as 3-5, the latter pyriform, 7 smaller and more elongate, club sericeous, slightly longer than segments 5-7 combined. *Prothorax* 3.5 mm wide, 3 mm long, greatest width at middle; apex and base truncate; transversely slightly convex; constricted near apex, median carina prominent,

elevated some at apical end; medial area with few scales, discal surface with granules and punctures, which are largely obscured by scale covering. *Elytra* widest near base, gradually narrowing to apex, surface flat except for a slight elevation of intervals 5-6 at declivity, striae with punctures, each puncture contains a granule with small setae, intervals with scales and very small granules, interval 9 coalescing with other intervals at apex, forming a raised strip, densely covered with light setae and scales. *Legs*, femora reaching apex of elytra; femora and tibia densely covered on dorsum with scales and short setae; clubs of femora median-sized and strongly rugose on inner surface. Ventrites 1-2 devoid of scales in median area.

Length 8.1-12.9 mm; breadth 3.5-5.1 mm.

Type locality: Solomon Islands: Bougainville Island, Boku, VI-4-1956 (J. L. Gressitt). Type deposited in the Entomological Collection, Bishop Museum, Honolulu, Hawaii. Paratypes in the Bishop Museum; British Museum of Natural History, London, England, and Entomological

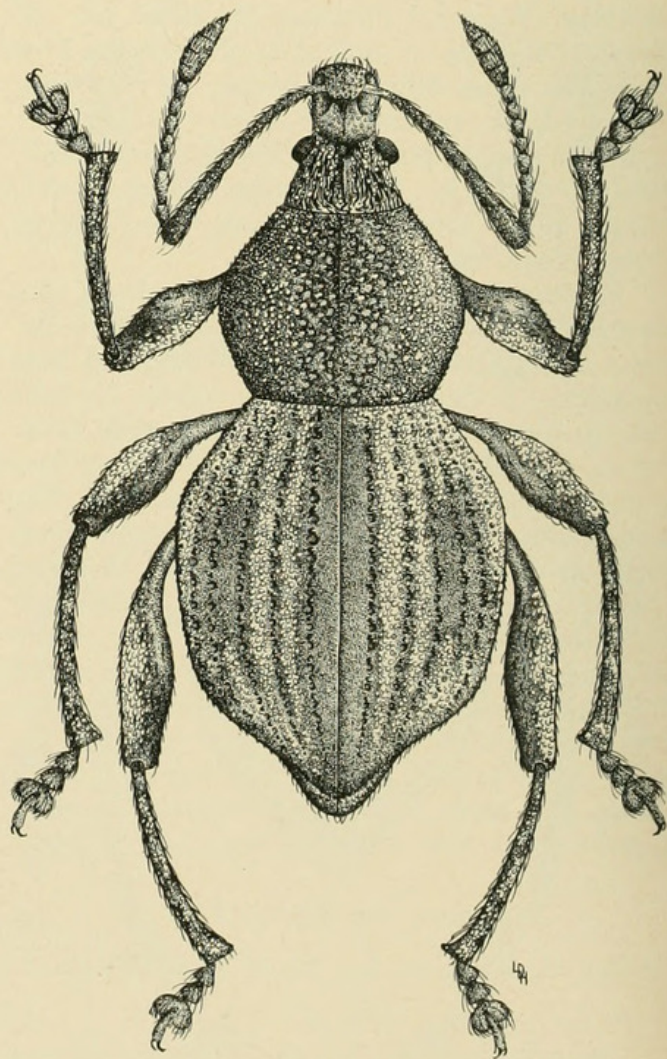


Fig. 38. *Trigonops bougainvillensis* n. sp.

Collection, Brigham Young University, Provo, Utah.

Remarks: *T. bougainvillensis* is closely related to *T. carinithorax*. The scale color and pattern, size, reddish color of the legs in some specimens, the small funicle segments, and the shape of the elytra of *bougainvillensis* may be used to separate these two species.

Trigonops guadalcanalensis n. sp.

Fig. 39

Derm black with small, irregularly shaped white and iridescent scales; prothorax flattish without a medium carina, but with small black granules, irregularly placed; scales evenly distributed over dorsal surface.

Head and rostrum shorter than prothorax, separated from rostrum by a V-shaped sulcus. Rostrum narrower than head, with narrow carina

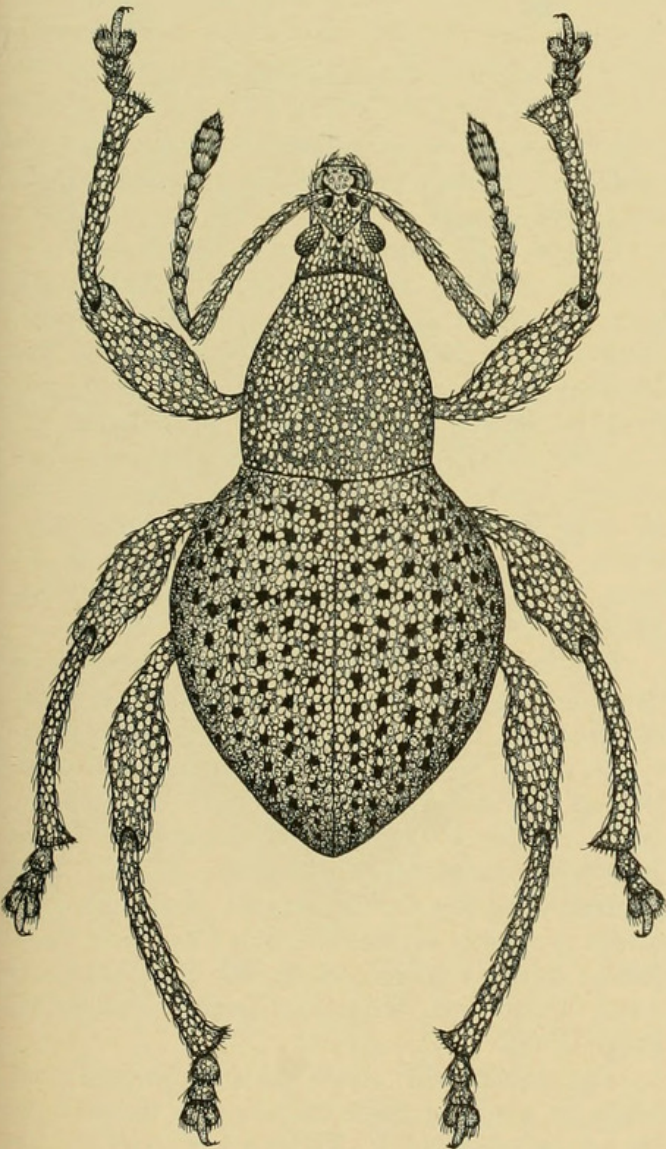


Fig. 39. *Trigonops guadalcanalensis* n. sp.

separating scrobes, declivity sparsely covered with white scales. Antennae scape sparsely covered with scales and decumbent setae, proximal end narrow, slightly widening to distal end, reaching to middle of prothorax; funicular segments very similar in shape, first two longer than other segments, clothed with straight black setae, club as long as segments 5-7 combined, thickly covered with white setae. Eyes not prominent, but rather small and evenly convex, placed on lateral portion of head; frons slightly convex, covered with white scales. Prothorax wider than long, base and apex truncate, widest at middle, constriction near apex, base twice as wide as apex, disc flattish, small black granules showing through scale cover, punctures in irregular striae, short, white setae and punctures obscured by scales. Elytra twice as long as wide, widest just anterior to middle, punctures deep, prominent and separated by width of a scale, rows of small closely set scales along elytral suture, small, black granules separating punctures; intervals covered by two rows of scales, tuft of setae on steep declivity in females. Legs, hind femora reaching just beyond apex of elytra, femora black, tibia and tarsus reddish brown, covered with white scales and setae. Ventral surface sparsely covered with white setae and scattered white scales, ventrites 3-5 shorter in length than 2 and devoid of scales.

Length 4.0-4.3 mm; breadth 2.1-2.4 mm.

Type locality: Solomon Islands: Guadalcanal, Tenaru River Area. Holotype ♀, Guadalcanal Islands, Tenaru River Area, 1944 (D Elden Beck); Allotype ♂, Guadalcanal Island, Tenaru River, 1944 (Ernest Reimschuessel); 32 paratypes same data as holotype and allotype; two paratypes Guadalcanal Nalimbu River, July 4, 1960 (Jan Schenk); six paratypes, Guadalcanal, Lunga River Bridge, August 23, 1960 (Jan Schenk); one paratype, Guadalcanal, Honiara Bot. Gardens, June 16, 1961 (Jan Schenk); one paratype, Savo Island (no other data); one paratype, Russell Island, Lingatu, February 9, 1936 (R. A. Lever); one paratype, Bougainville, Naval Air Base, April 1945 (G. E. Bohart); one paratype, Guadalcanal, Gold Ridge, 1-2000 feet, September 21, 1958 (P. G. Fenemore); one paratype, Guadalcanal Iiu Farm, December 26, 1953 (J. D. Bradley); one paratype, Guadalcanal, Kukum, March 23, 1958 (P. G. Fenemore); and five paratypes, Guadalcanal, Matengo, March 1933 (R. A. Lever).

The holotype, allotype and 18 paratypes are deposited in the Entomological Type Collection of the Brigham Young University; nine para-

types deposited in the Entomological Collection, British Museum of Natural History, London, England; six paratypes in the Entomological Collection Bishop Museum, Honolulu, Hawaii; three paratypes in the Entomological Collection U. S. National Museum, Washington, D. C.; three paratypes in the Entomological Collection, California Academy of Sciences, San Francisco.

Captain Beck collected this species under a coral-colored fungus growing on a dead tree in a moist jungle habitat; he also obtained it from sweeping a grassy plot a few yards from the beach and near a jungle thicket.

T. guadalcanalensis is a small species, clothed with a thick covering of pale greenish-white and iridescent scales; disc of the prothorax flattish without a median corina and with small black granules; rostrum and head shorter than the length of the prothorax; antennae scape slender; elytra, greatest breadth near the base, strongly convex transversely and precipitous at the declivity.

Trigonops helleri n. sp.

Fig. 40

Derm of head, prothorax, and elytra black; legs, antennae, and ventrites with some reddish-brown color; scales cinereous.

Head and rostrum as long as prothorax, rostrum as long as head, carina terminating in small elevation; declivity shiny with few shallow punctures and scales. *Antennae* scape reaching middle of prothorax; slightly bowed and expanded at apex; densely covered by scales, light setae; funicle segments 1-3 elongate, as long as 4-7 combined; club short, as long as segments 6-7. *Eyes* round, convex but not as conic as some other species of genus. *Frons* and *vertex* rugose, fovea at apex of rostral suture. *Prothorax* as wide as long, widest just back of middle, apex narrower than base; waved elevated lines lateral and discal surface, punctures and granules interspersed between wrinkles; median carina sparsely covered with scales; base and apex truncate. *Elytra* longer than wide, acuminate; greatest width 2.9 mm transversely convex; obovate, striae punctate, with black shiny granules on spaces between punctures, intervals thickly covered with scales, especially along elytral suture, emarginate near apex. *Legs*, hind femora not reaching apex of elytra; femora and tibia, dorsally densely covered with light setae and scales, hind tibia straight, fore and middle tibia bowed; ventrites 1-2 reddish brown, laterally covered with light setae and scales, center portions shiny,

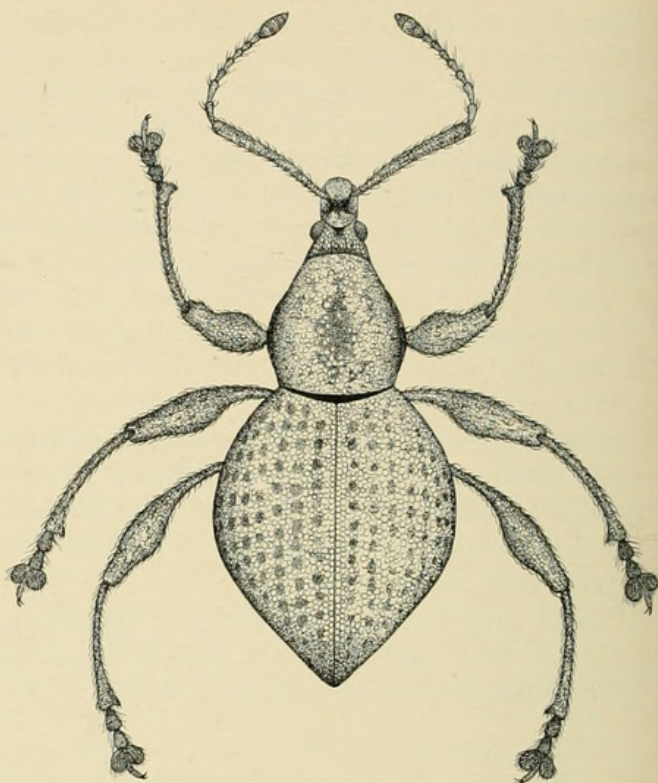


Fig. 40. *Trigonops helleri* n. sp.

with few small setae, ventrite 5 longer than 3-4 combined, densely covered along apical margin with light setae.

Length 3.5-5.5 mm; breadth 2.0-3.5 mm.

Type locality: Solomon Islands: Kolombangara Island 7-II-1922 (E. A. Armytage). *Specimens studied*: Holotype and two paratypes, Kolombangara Island, VI-1922 (E. A. Armytage); three paratypes, Kolarbangara Island, Iri-iri, 27, III, 1958 (P. G. Fenemore); 12 paratypes New Georgia Group, N. Georgia Island, Munda, 1-30 m. July 20, 1959 (J. L. Gressitt); three paratypes, New Georgia Group, Kolombangara Island, Kukundu, S. W. Coast, 1-12 m., July 8-11, 1959 (J. L. Gressitt).

The holotype and four paratypes have been deposited in the Entomological Collection, British Museum, Natural History, London. Six paratypes placed in the Entomological Collection, Bishop Museum, Honolulu, Hawaii. Three paratypes in the Entomological Collection, U. S. National Museum, Washington, D. C. Two paratypes in the Entomological Museum, California Academy of Science, San Francisco, California, and six paratypes in the Entomological Type Collection, Brigham Young University, Provo, Utah.

Throughout this study an attempt has been made to get host plant information for each of the species dealt with. The most complete available report on the host plants of a species of

Trigonops was made by J. L. Gressitt who collected many specimens of *helleri* on N. Georgia Islands. Dr. Gressitt found *helleri* on *Flagellaria*, a Flagellariaceae, one of three known species of a climbing monocot, which is distributed from Africa to Formosa, Indomalasia, Australian, and the Solomon Islands. He also collected it on *Freycinetia*, a Pandanaceae, a monocot and one of the screw pines; on *Acalypha*, a Euphorbiaceae; *Glochidion*, another Euphorbiaceae; *Heliconia* and palms.

I take pleasure in dedicating this species to the memory of K. M. Heller of Dresden, who contributed so much to the knowledge of the South Pacific weevil fauna.

Trigonops seriatopunctata Heller

Heller, Arb. Morph. Taxon. Ent. II, 1935, p. 269

Fig. 41

Derm black with chalky white scales and unpunctured prothorax. Head and rostrum clothed with light-colored distinctly separated scales; rostrum with narrow carina about breadth

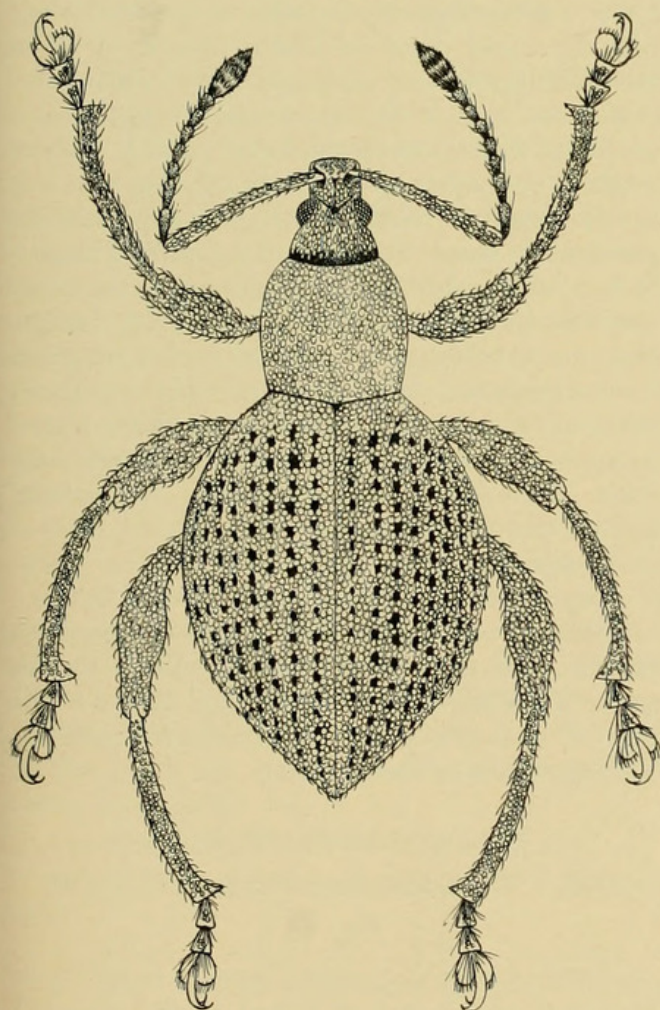


Fig. 41. *Trigonops seriatopunctata* Hllr.

of scape of antennae and without an elevation at junction with declivity; antennae scape reaching middle of prothorax; segments of funicle 1-2 elongate, 3-5 obovate and about equal in length; club length that of segments 4-7. Eyes hemispherical in shape; rostral suture V-shaped and distinct. Prothorax width 1.3 mm; length 1 mm; no median carina, disc flat, evenly covered with roundish pearl-colored scales, crescent apical area with fine setae; base slightly angular; disc and lateral surface without punctures; or median modification, scales uniformly but separately placed. Elytra widest at middle, evenly sloping to a point at apex; surface of elytra flat, intervals between punctures not elevated; base of elytra not punctate, intervals approximately twice diameter of punctations which bare small setae. Legs, femora of metathoracic legs stout, but clubs only moderately enlarged, not reaching apex of elytra, ventrites 1-2 bowed; 3-5 straight; punctuation and scales sparse.

Length 4.0-5.0 mm; breadth 2.0-2.3 mm.

Type locality: Solomon Islands: New Georgia, Pauru 1931 (Fr. Malches). The specimens from which this description and drawing was made came from Solomo I. Georgia: Pauru, Fr. Malches, Coll. 1931. These are the only specimens of this species available. Dr. Wilhelm Gotz provided by loan specimens of *seriatopunctata* for my study. They are labeled as cotype specimens of *Trigonops seriatopunctata* Heller.

Trigonops dilaticollis Gunther

Gunther, Mitt. Deut. Ent. Ges. Vol. 8, -3, 1937.

Fig. 42

Derm black covered with small round gray-brown scales, prothorax strongly emarginate at the base and flattened. Rostrum as long as head, carina fine, terminating at declivity in a small angular elevation, declivity precipitous, devoid of scales except near elevation of carina, scrobes large and open, separated by narrow carinal ridge; antennae scape expanding in diameter from origin to apex, reaching to middle of prothorax; funicle segments 1-2 elongate, 3-6 globose, 7 more elongate, club as long as segments 5-7. Eyes large, round, well down on lateral portion of head, and rather flattish, rostral base along curved sulcus rather tumid. Prothorax, wider than long, widest at the outer angle of basal emargination, apex and base truncate and equal in width; surface with white scales, flat, with small punctures and granules with white setae issuing from side of each. Elytra with greatest breadth before middle; striae punctate,

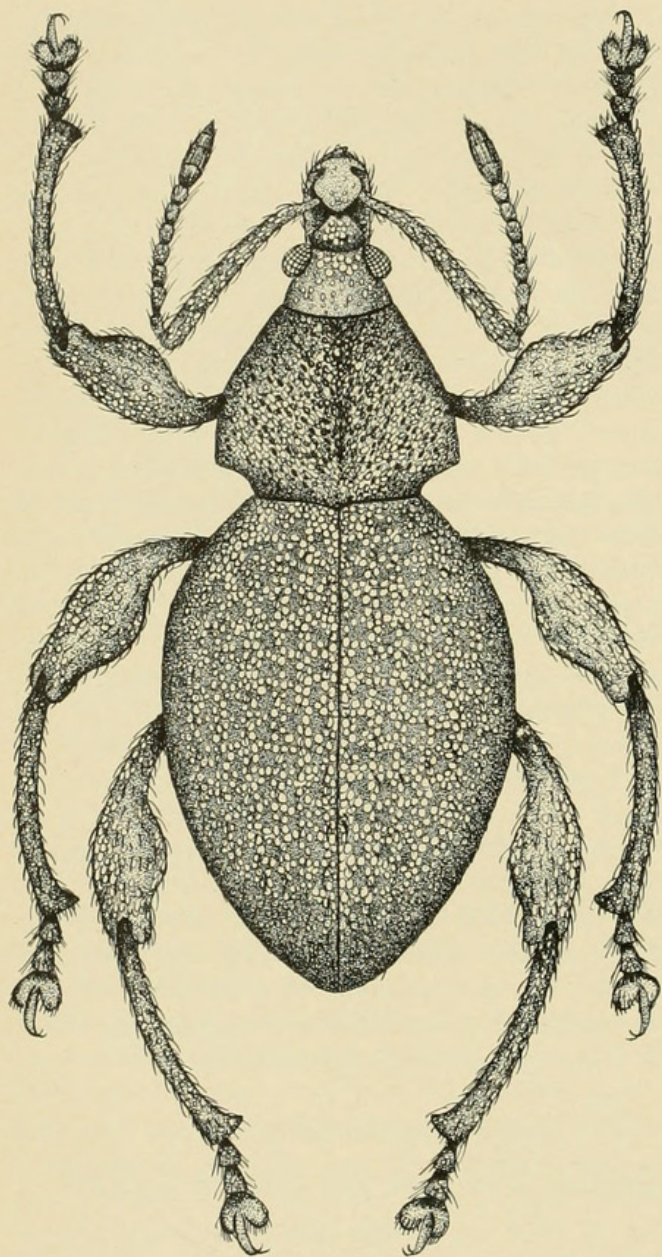


Fig. 42. *Trigonops dilaticollis* Gunther

interval and interpunctate surface covered with white and brown scales; surface of male slightly concave longitudinally, female surface slightly convex transversely and with a tuft of setae at declivity; decumbent white setae present from declivity to pointed apex. *Legs*, femora not reaching apex of elytra; dorsal surface of femoral club densely covered with white scales. Ventrites 1-2 connate, punctate and with scales on lateral portions, median area glabrous. Ventrites 3-4 without scales and setae, ventrite 5 with white setae.

Length 5.3-6.8 mm; breadth 3.1-3.8 mm.

Type locality: San Cristobol Is., Kira Kira, May 2, 1935.

Specimens studied: San Cristobol Is., Kira Kira, May 5, 1934 (R. A. Lever), S. Malaita,

Mukka, May 5, 1934 (R. A. Lever), Ugi Is., May 6, 1934 (R. A. Lever).

T. dilaticollis is a distinctive species because of the basal emargination of the prothorax, flatness of the prothorax and elytra; position and shape of the eyes, large open scrobes, narrowly separated by the rostral carina; prothorax covered with closely placed granules and punctures; ventrites 1-2 being connate. Gunther suggested that *Trigonops platessa* and *T. carinithorax* are related to *dilaticollis*. There are some resemblances, but many differences.

Trigonops vitticollis Fairm.

Fairmaire, Ann. Soc. Ent. Belg. XXVII, 2, 1883, p. 34

Derm, dark brown, approaching black, with ash-colored scales; body oval, oblong and rather convex. *Head*, vertex darker, median portion of rostrum with carina; scrobes large, antennae scape long, first funicle segment elongate, second segment shorter, others unequal, acute. *Eyes* convex, but not pointed. *Prothorax* narrow longitudinally, greatly narrowed towards apex; median line of a smoky or blackish tinge with here and there on lateral margin of elytra brownish spots or centers of scales and setae; punctures with scales in rosette-shape, median granules bare and irregularly placed. *Elytra* ovate, short, apex obtusely acuminate; base not at all latioribus, middle enlarged, intervals not punctured, striae deeply punctured continuously to apex; level between interstices; prosternum narrows, but coxa cavities by no means contiguous; mesosternum short, lato; metasternum punctate; abdominal base obtusely truncate, thinly covered with rigid bristles on middle, lateral margins grossly punctate, suture between ventrites 1-2 obliterated, ventrites 3-4 narrow, femora club robust.

Length 7 mm.

Type locality: Duke of York Islands.

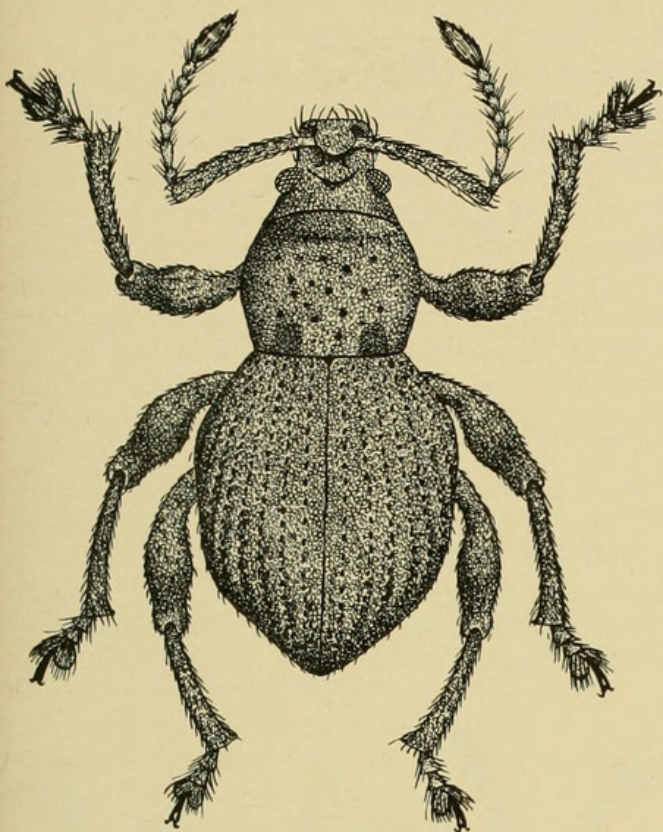
Fairmaire comments that except for the shape of the eyes this insect species belongs to the genus *Trigonops*. The longitudinal brown markings of the prothorax readily distinguishes it. This species is unknown to me.

Trigonops notaticollis Heller

Heller, Wien. Ent. Zeit. XXIX, 1910, p. 190

Fig. 43

Derm black or reddish-brown, covered by blue-gray scales, apical rostral carina elevated, elytra flattened, lateral costa 7 and 9 elevated.

Fig. 43. *Trigonops notaticollis* Hllr.

Rostrum about as long as wide, thickly covered with scales, separated from head by a curved suture. *Antennae* reddish-brown, all segments with setae, 1-2 oblong, 3-7 submoniliform, club oblong-oval; scape wider at apex than at base. *Head* short, broad, covered with scales, short setae issuing from punctures. *Eyes* curved, almost spherical, their apex shifted toward rear. *Prothorax* broader than long, base, and apex truncate, constricted near apex, deep punctures surrounded by scales in a rosette shape; two basal black markings. *Elytra* short, egg-shaped, above flat lateral edges with elevated costa, widest before middle, punctures bearing short setae, scales compact on costal intervals. *Legs* reddish-brown, femora not reaching apex of elytra; heavily covered with scales, and short, light colored setae, under side sparsely covered with scales, punctures few, with white setae; ventrite 2 with greater breadth than 3-4-5; 5 wider than 3-4; a few small white scales and setae on ventrites 3-4.

Length 4.5-5.3 mm; breadth 2.5-3 mm.

Type locality: Tasman Island (R. V. Rennigsen).

Locality: Distribution of the specimens of this study: Solomon Islands; Sikaiana (Stewart Islands), March 23, 1936 (R. A. Lever).

Remarks: The nine specimens used in this

study were compared with the two cotype specimens of *notaticollis* from the Dresden Museum. They agreed perfectly with the Heller specimens. Heller related *notaticollis* to *Trigonops dispar* Jek. Marshall 1956, transferred *dispar* to a new genus *Platysimus* along with five other species that had been in the heterogeneous *Trigonops* prior to Marshall's study.

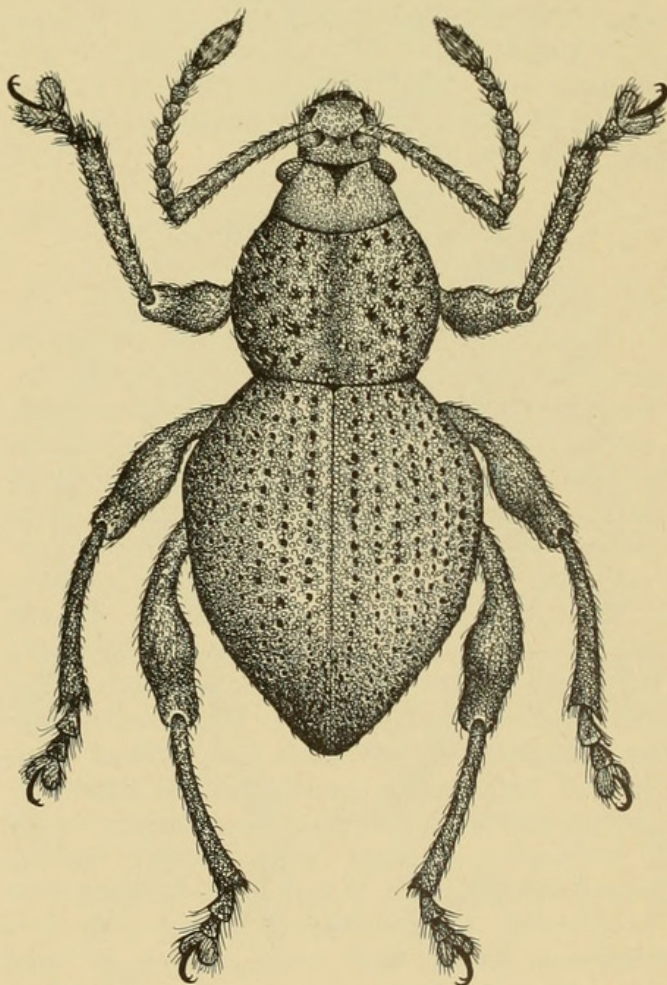
Trigonops forticornis Heller

Heller, Wien. Ent. Zeit. XXIX, 1910, p. 187, Fig. 3.

Fig. 44

Derm black with some dark brown to reddish color on legs and elytra, scales pale green with some bluish ones on legs.

Rostrum as long as it is wide, scrobes deep and wide, head separated from rostrum by a rather straight sulcus; antennae scape of equal diameter throughout, but bent slightly at its proximal end; segments 1 and 2 of funicle equal in length, conical and approximately one and one-half times as long as wide, other segments somewhat spherical, not as long as wide, cov-

Fig. 44. *Trigonops forticornis* Hllr.

ered with black setae and some blue-green scales; club with gray setae. *Head* widening from rostral suture to base, scales sparse on lateral and medial areas; eyes contiguous with rostral suture, not so prominent and less pointed. *Prothorax* wider than long, constricted towards apex, widest at middle, base and apex truncate and equal in width; disc rather flat, median area with few scales, but with small black tubercles, punctures deep, centered with decumbent white setae. *Elytra* widest just back of base, tapering to apex, stria 10 complete with small punctures, punctures on disc large, surrounded with a rosette of pale scales, female with slight concavity of disc near declivity and a tuft of setae on posterior declivity of elytra. *Legs* reddish-brown in color, posterior femora not reaching tip of elytra; underside sparsely clad with green scales; metasternum, ventrites 1-2 with few scales in center portion, these areas rather glabrous with few small punctures and short white setae.

Length 7.0-7.2 mm; breadth 3.4-3.7 mm.

Type locality: Solomon Islands (Russell Island ?) VII-VIII, 1909, W. W. Froggatt (Sideny).

Distribution of specimens studied: Guadalcanal, 2 ♀♀ Tenaru River 1945, G. E. Bohart; 1 ♀ Tenaru River, 1944, Doyle Taylor; 3 ♀♀ Malaita, Auki, IX-21-1957; 2 ♂ Malaita; Tangtalu, IX-25, 1957; 2 ♂ Malaita; Andalimu Nagara-fata, S. W. Fiu River.

Trigonops gressitti n. sp.

Fig. 45

Derm black with green scales in stripes on prothorax and transverse patches on elytra. *Rostrum* short and narrow, slightly longer than head, scrobes large, ridge with an acute carina terminating in an elevation at declivity; declivity punctured and with a few scales on apex, scape narrow, bowed, expanded a little at apex, covered with green scales and black setae, reaching a little beyond middle of prothorax; funicle slightly longer than scape, segments elongate, 1-2 longer than segments 5-6-7 combined, densely clothed with white setae. *Head* wider than long, rugose with few small punctures at apex, covered with scales; a deep sulcus separates rostrum and head; eyes prominent, convex roundly subconical, highest point behind middle; placed low on genae, dorsal space between eyes considerably greater than diameter of an eye. *Prothorax* longer than wide, convex at apex which projection covers over venter of head to some extent, restricted slightly near apex, base

truncate, widest back of middle; dorsum flat longitudinally, with a strip of green scales on either side of median line, disc and upper pleural area with deep pentagonal shaped punctures. *Elytra* plump ovate, widest before middle, convex transversely, dorsum flat yet sloping from middle to front and back, striae with punctures confined within septa and interval walls, latter covered with small, round granules and some green scales; ♀ with tuft of setae on declivity, apex of ♂ produced downward more than in ♀. *Stria* 10 very close to 9 posteriorly; a shiny glabrous area on intervals 3-4 where metathoracic femora impinges on elytra. *Legs* black, femora extending beyond apex of elytra; dorsum of femora and tibia covered with green scales; venter and lateral portions of ventrites 1-2 and 5 covered with green scales and setae, deeply punctured; ventrites 3-4 narrow and free from scales and setae.

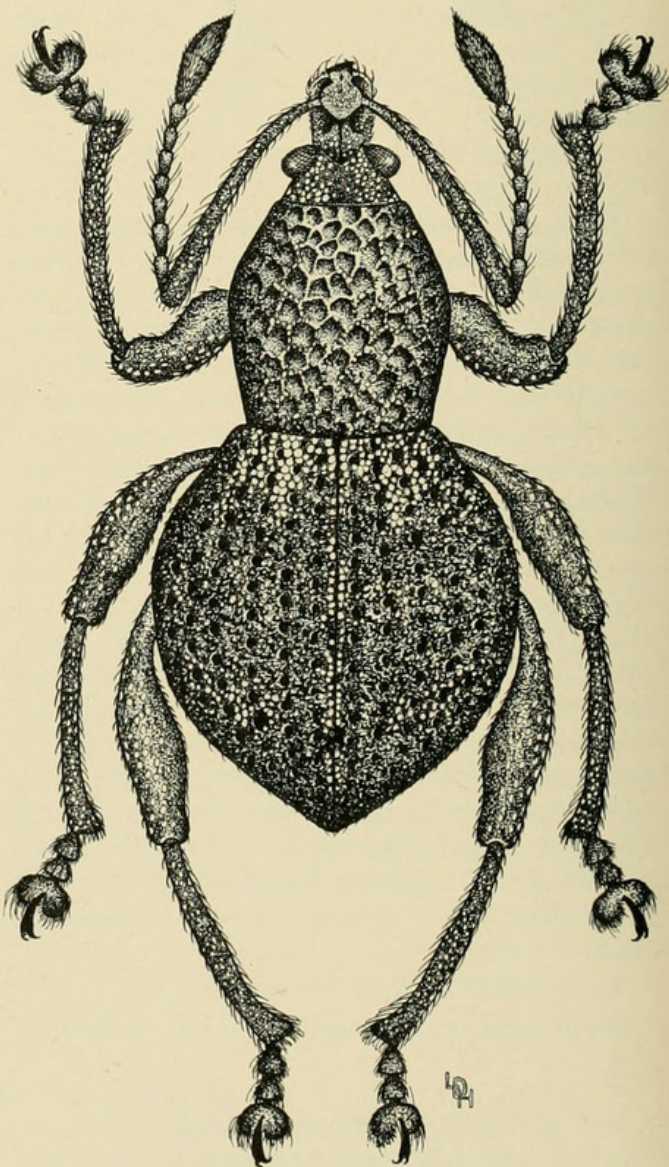


Fig. 45. *Trigonops gressitti* n. sp.

Length 4.8-6.1 mm; breadth 2.6-3.6 mm.

Type locality: Solomon Islands; Holotype ♂ Bougainville (S.) Kokure, Nr. Crown Prince Rd. 900 m. April 8, 1956 (J. L. Gressitt); Allotype ♀ same locality and date; 10 paratypes same locality and data; two paratypes Bougainville (S) Boku, 50 m. April 5, 1956 (J. L. Gressitt); one paratype Bougainville, April 20, 1944 (A. B. Gurney).

Holotype, allotype and 2 paratypes deposited in the Entomological Collection Bishop Museum, Honolulu, Hawaii; two paratypes in the Entomological Collection, British Museum of Natural History, London, England; two paratypes in Entomological Collection, U. S. National Museum, Washington, D. C.; one paratype in Entomological Collection California Academy of Science, San Francisco, California; and four paratypes in the Entomological Type Collection, Brigham Young University, Provo, Utah. Some of the specimens are rubbed.

T. gressitti is characterized by the large angular punctation of the prothorax; the large eyes, base of the rostrum tumid, and long antennae clothed with scales and black setae.

I am pleased to name this species in honor of J. Linsley Gressitt of Bishop Museum who has done so much to add to the knowledge of and collecting of the insect fauna of Oceania.

Trigonops gloriosa n. sp.

Fig. 46

Derm black, with a uniform pattern of small green scales on rostrum, antennae, head, prothorax, elytra, and legs; devoid of scales on vertex of head, a broad medial area of prothorax and a band across middle and declivity of elytra.

Rostrum, base one-half as wide as base of head, parallel sides and longer than head; suture separating head from rostrum, U-shaped and distinct; apex of rostrum scaleless, scrobes well-developed. *Antennae* with scape slender, enlarged at apex, reaching beyond middle of prothorax, funicle as long as scape, segments 1 and 2 as long as segments 3-6 combined, segment 1 broader, but shorter than segment 2; club as long as segments 4-7. *Head*, eyes placed low on head, in contact with rostral suture, large for size of insect, oval in shape; base of head twice width of apex. *Prothorax*, base and apex truncate, wider than long, greatest width before middle; disc convex, punctures deep, large, angular in shape, and devoid of scales. *Elytra*, one and one-half times as long as wide, greatest width at middle, base truncate, elytral stria 10 approach-

ing closely to 9 posteriorly; punctures deep, a band of small green scales extend along base to lateral margin of elytra, uniting with a band of scales which extend backward to apex; along elytral suture and across declivity bands of scales, otherwise black punctured surface of elytra is glabrous. *Legs*, hind femora reaches beyond tip of elytra; dorsal surface of femora and tibia

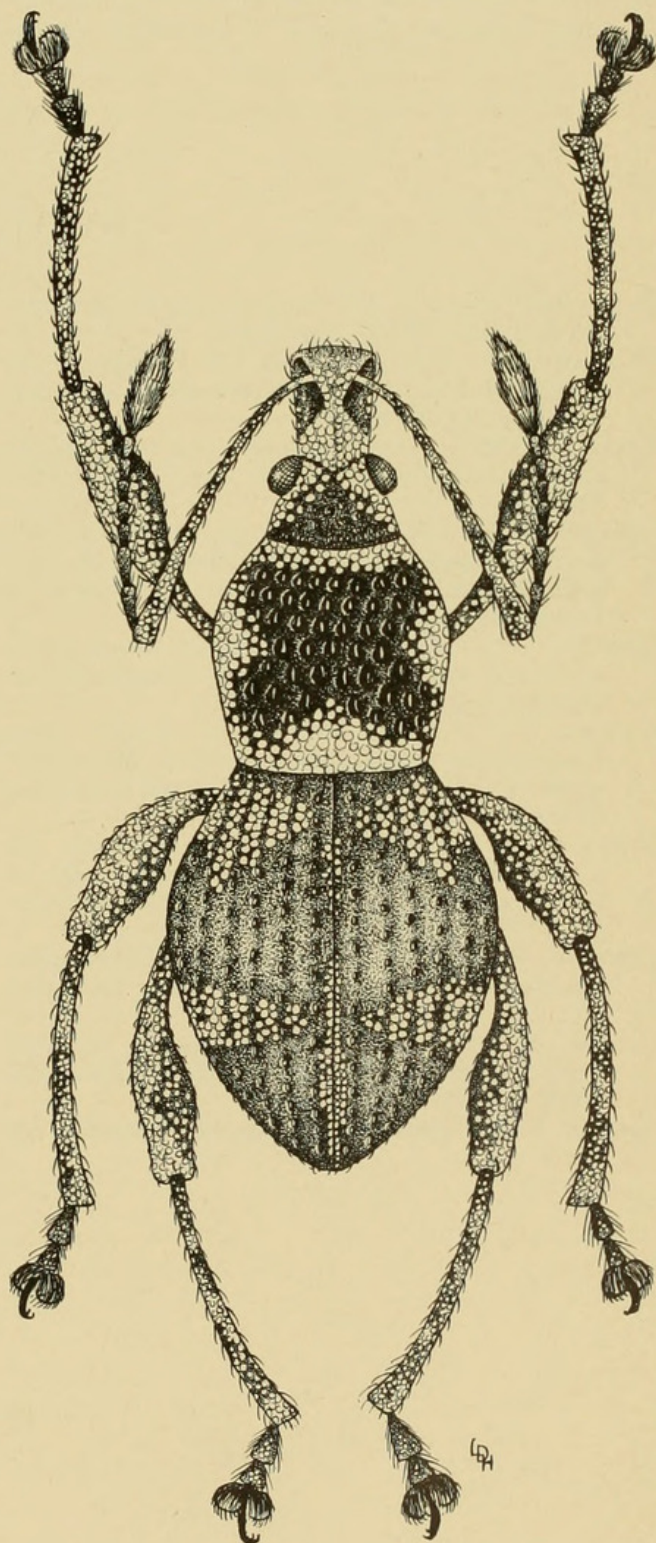


Fig. 46. *Trigonops gloriosa* n. sp.

covered with scales. Under side of specimen clad with green scales except ventrites 3-5.

Length 3.1 mm; breadth 1.5 mm.

Type locality: Solomon Islands; Bougainville, Kokure, 600 m. June 14-17, 1956 (E. J. Ford, Jr.); Specimens studied: Holotype and three paratypes. Holotype deposited in the Entomological Collection of the Bernice P. Bishop Museum, Honolulu, Hawaii, one paratype in the Entomological Collection, British Museum of Natural History, London, England; 1 paratype in the

Entomological Collection, U. S. National Museum, Washington, D. C.; and 1 paratype in the Entomological Collection, Brigham Young University, Provo, Utah.

Remarks: This species is similar in size to *T. minuta*, but differs in scale pattern, lacks the circular decumbent setae on the scape of the antennae and the spine on the humeral angle. The prothorax is convex with distinct deep punctures. The rostral carina is longer and without an apical elevation.

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