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Report on a Collection of Samoan Coleoptera

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INTRODUCTION

The collection upon which this paper is based was made during the course of the Henry G. Lapham Expedition to Fiji, sent out by Bishop Museum in 1938. I collected it in about three hours during the time the steamship stopped at Pago Pago, Tutuila, American Samoa, en route to Suva, July 2. I followed the pipeline trail to the Fagatogo reservoir, collecting between the village and the reservoir.

The opportunity to collect for a few hours at the principal port of American Samoa proved my assumption that the insect fauna has been only partially and inadequately collected, in spite of the recent completion of the excellent series of volumes, "Insects of Samoa." Much profitable work can and should be done in the Samoan islands.

My collection of Samoan Coleoptera contains 46 species. Ten of them have not heretofore been recorded from Samoa, and of those ten, four are described here as new species. I am unable to identify the other six species, most of which may be new. Two minute species, whose families I do not recognize, are omitted from the discussion. Surely, if three hours of hasty collecting in the main port produced over 21 percent of heretofore unrecorded species of beetles, there is much to be found by concentrated collecting in the entire archipelago. The 36 species which have heretofore been recorded total more than 9 percent of the entire number of species of Coleoptera recorded from the Samoan islands.

The types of the new species are in Bishop Museum.

STAPHYLINIDAE

Medon tutuilanus Cameron, *Insects of Samoa* 4(1) : 23, 1927.

This species was described from a unique from Pago Pago, Tutuila. Two specimens were collected; one was beaten from a shrub, the other was taken from a stump of *Inocarpus edulis*.

Medon sp.

Only one species of the genus has been recorded from Samoa, but I beat two specimens of a distinct species from shrubs.

Osorius samoensis Bernhauer, *Arch. für Naturg.* 88 A (10) : 149, 1922.

One specimen was found. This species has been recorded from Tutuila, Upolu, and Savaii.

NITIDULIDAE

One specimen of a species heretofore unrecorded from Samoa, belonging to a genus unknown to me and in all probability a new endemic insect, was collected.

CUCUJIDAE

One specimen (genus near *Brontolaemus* Sharp ?) of a species heretofore unrecorded from Samoa was captured.

COLYDIIDAE

Bitoma sp.

Arrow (1927) recorded an unknown species of this genus from Samoa, in addition to *Bitoma siccana* Pascoe. Three specimens of a species different from any of the others known to me from the eastern Pacific were collected. Two of these were beaten from shrubs and the third was found under dead bark of *Inocarpus edulis*. This species is similar to, but distinct from, a species I found commonly under the dead bark of *kauri* in the highlands of Viti Levu, Fiji.

Keklasmenus latiusculus (Fairmaire), new combination.

Ditoma latiuscula Fairmaire, *Soc. Ent. France, Ann. VI, 1* : 255, 1881.

Keklasmenus serraticollis Sharp: Ent. Mo. Mag. II, 10:9, 1899.
(New synonym.)

Neotrichus latiusculus (Fairmaire) Arrow, Ann. Mag. Nat. Hist. VIII, 4:193, 1909.

Sharp erected the genus *Keklasmenus* in 1899, but in describing the genotype he renamed Fairmaire's species. *Keklasmenus* has an 8-segmented antennal funiculus, but *Neotrichus* has a 9-segmented funiculus.

Five specimens were collected, four of them from beneath the dead bark of *Inocarpus edulis*. The species is widespread in the south-eastern Pacific and has been recorded from Tutuila and Upolu.

CRYPTOPHAGIDAE

Hapalips samoensis Arrow, Insects of Samoa, 4(1):53, fig. 7, 1927.

This species was described from three specimens taken from a nutmeg tree on Tutuila. I beat five examples from shrubs and took one from a dead stump of *Inocarpus edulis*.

EROTYLIDAE

Euxestus basalis (Motschultsky).

Tritomidea basalis Motschultsky: Etudes Ent. 8:106, 1859.

One example was beaten from a shrub. This widespread insect has been recorded from Tutuila and Upolu in Samoa.

TENEBRIONIDAE

Bradymerus lobicollis Gebien, Tenebrionidae in Resultats de l'Expédition Scientifique Néerlandaise à la Nouvelle-Guinée, 13(3) Zool. :240, figs. 14-15, 1920.

This species was originally described from a unique found in New Guinea, but it has also been recorded from Samoa (Tutuila). Two specimens were taken from beneath dead bark of *Inocarpus edulis*.

Sciophagus pandanicola Boisduval, Voy. Astrolabe, Ent. :258, 1835.

Pachycerus domesticus Montrouzier, Soc. Ent. France, Ann. III, 8:292, 1860.

Chariotheca infima Fairmaire, Soc. Ent. France, Ann. VI, 1:279, 1881.

Three specimens of this widespread Pacific species were found beneath dead bark of *Inocarpus edulis*. The only Samoan locality listed by Blair in "Insects of Samoa" is on Upolu.

Chariotheca planicollis (Fairmaire).

Olisthaena planicollis Fairmaire, Rev. Zool. II, 1: 451, 1849.

Thesilea planicollis (Fairmaire) Gebien, Coleopterorum Catalogus. Tenebrionidae (3): 502, 1911.

Two specimens were beaten from shrubs and one was found beneath the dead bark of *Inocarpus edulis*. This species has been found on Tutuila, Upolu, and Savaii.

Amarygmus (Platolenes) samoensis Haag-Rutenberg, Verh. Ver. naturw. Unterh. Hamburg 3: 104, 1878; Mus. Godeffroy, Jour. 5: 133, pl. 7, fig. 23, 1879.

One specimen was beaten from a shrub and two were taken from beneath dead bark on *Inocarpus edulis*. The species is widespread on the larger Samoan islands.

Amarygmus tuberculiger Fairmaire, Rev. Zool. II, 1: 450, 1849.

Six specimens were taken from under the dead bark of *Inocarpus edulis* together with the preceding species, and two were beaten from shrubs. Blair records this species from Tutuila, Upolu, and Savaii.

These two species of *Amarygmus* are very agile and jump rapidly when disturbed. They are common beneath loose bark.

MORDELLIDAE

Mordellistena samoensis Blair, Insects of Samoa, 4(1): 87, fig. 6, 1927.

This species is common about dead leaves hanging in shrubs and trees; eight specimens were beaten from shrubs, and numerous specimens were shaken from dead banana leaves. These insects are active jumpers and are difficult to capture. Blair described the species from Tutuila and Upolu.

RHIPIPHORIDAE

One specimen of *Pelecotomoides*, beaten from a shrub, is distinct from *Pelecotomoides (Micropelcotoides) fulvosericans* Fairmaire, which is the only species of the family thus far recorded from Samoa.

CIIDAE

Blair described three species of Ciidae from Samoa, one in a new genus, *Scolytocis*, the other two in *Cis*. I collected a third species of *Cis* which is distinct from either of the two previously described Samoan species; it is:

Cis laphami, new species (fig. 1, *c, j, l*).

Male: derm shiny black, legs and venter piceous, antennae with the first segment brownish, the following funicular segments yellowish, the club black; dorsal setae minute, fleck-like.

Head with the crown hidden to between the eyes by the pronotum, alutaceous, finely and rather closely punctate, minutely setose; the anterior margin flange-like, slightly upturned, well developed throughout, entire, apical margin very shallowly concave, almost truncate at the middle, subequal in breadth throughout, without tooth-like projections. *Antennae* (measured after separation from the head) with the first segment, exclusive of its basal articulating pedicel, irregularly subcircular in outline, as broad as long, almost as long as 2 plus 3, two fifths broader than 2, the clavate part of 2 slightly broader than long, narrower at the apex than base, not quite as long as 3, almost twice as broad as 3, 3 slender, gradually enlarged toward the apex, twice as long as broad, as long as 4 plus half of 5, 4 two thirds as long and slightly broader than 3, 5 to 7 each successively shorter and more transverse, 8 more transverse, 8 trapezoidal, one third broader than long, as long as 7 plus half of 6, 9 trapezoidal, three fourths as long as broad, one third longer and one fourth broader than 8, 10 ovate, the apex acutely pointed, as long as 8 plus 9. *Prothorax* distinctly transverse (2.0:2.7), base not truncate but broadly convex in about the middle third, evenly arcuate on the sides, apex entire, not upturned, not toothed or otherwise modified, longitudinal dorsal contour evenly convex; lateral carina broad and distinctly visible from base to apex from above, the basal angle obtuse and rounded into the basal carina, the apical angle slightly obtuse; dorsal punctures dense, well marked, but not coarse, separated by interstices about as broad as the punctures, the interstices finely alutaceous, each puncture bearing a minute speck-like seta. *Elytra* bullet-shaped, apex roundly pointed, not quite three fourths as broad as long (2.7:4), twice as long as the prothorax; with a pseudo-humeral basal callus in the lateral third and thence depressed to the true humerus; the lateral carina forming a distinct obtuse angle of about 135 degrees with base; the puncturation similar to that on the pronotum, but the punctures tending to be less individually distinct, denser and subconfluent, especially on the disk; setae similar to those on the pronotum. *Legs* shiny, less coarsely reticulate than the sternum, finely and sparsely setose. *Sternum* with the intercoxal process of the prosternum well developed, the fore coxae separated by somewhat more than half the breadth of a coxa; metasternum shallowly punctate, as long between the mid and hind coxae as the length of the first ventrite behind the coxae. *Venter* coarsely reticulate, shallowly punctate; first ventrite of the male bearing an inconspicuous, oval, hair-filled pore at the apical third. Length: 1.5 mm.; breadth: 0.7 mm.

Samoa: Tutuila, near Fagatogo reservoir. Holotype male beaten by me from a shrub, June 2, 1938.

This shiny black species is so distinct from the other Samoan species that I feel justified in describing it from a unique. It appears to be closely allied to *C. tutuilensis* Blair (fig. 1, *h*), but it can be easily distinguished from that species because of its shiny black color and the angulation of the lateral carina of the elytra.

I take pleasure in dedicating this rare species to the late Henry G. Lapham, of Boston, whose interest and generosity made possible the highly successful 1938 expedition, which gave Bishop Museum the most comprehensive collection of Fijian insects yet assembled.

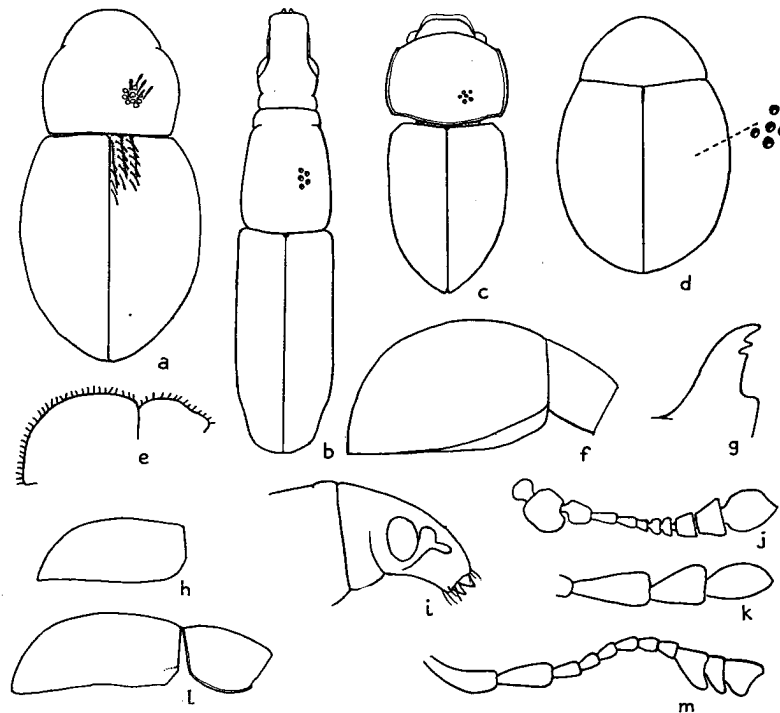


FIGURE 1:—Details of Samoan Coleoptera: a, outline of *Phanerostethus maculosus*, new species; b, outline of *Macrancylus meridianus*, new species; c, outline of *Cis laphami*, new species; d, outline of *Cisanthribus nitidus*, new species; e, dorsal outline of elytron and pronotum of *Phanerostethus maculosus*, new species; f, outline of elytron and pronotum, and g, left mandible of *Cisanthribus nitidus*, new species; h, outline of elytron of *Cis tutuilensis* Blair, to show rounded baso-lateral angle; i, outline of head and rostrum of *Macrancylus meridianus*, new species; j, antenna of *Cis laphami*, new species; k, antennal club of *Araecerus eudelus* Jordan; l, outline of elytron and pronotum of *Cis laphami*, new species; m, antenna of *Cisanthribus nitidus*, new species.

KEY TO THE SPECIES OF SAMOAN CIS

1. Pronotum coarsely, densely, reticulately punctate, the interstices between the punctures very narrow, obviously narrower than the diameter of a puncture; elytra coarsely, deeply and densely punctured.....*Cis sayaiensis* Blair.
Pronotum finely or minutely punctate, the punctures never reticulately placed, the interstices between the punctures distinct and as wide or wider than the diameters of the punctures; elytra finely punctate.....2
2. Color reddish brown; the lateral and basal margins of each elytron not forming an angle, but rounded at the humerus as in figure 1, *h*.....*Cis tutuilensis* Blair.
Color shiny black; the lateral and basal margins of each elytron not forming a continuous curve, but distinctly and obviously obtusely angulate at the humerus as in figure 1, *l*.....*Cis laphami* Zimmerman.

ELATERIDAE

Propsephus euënsis (Schwarz).

Psephus euënsis Schwarz, Deutsche Ent. Zeitsch., 351, 1901.

One example was beaten from a shrub. Although the type came from Tonga, this species has only been found on Tutuila in Samoa.

EUCNEMIDAE (MELASIDAE)

Fornax sp.

One example of a species distinct from the three heretofore recorded from Samoa was collected.

Porraulacus humeralis Fleutiaux, *Insects of Samoa* 4(2): 132, 1928.

Porraulacus buxtoni Fleutiaux, *Insects of Samoa* 4(2): 132, 1928.

One specimen of each of these species was beaten from a shrub. *P. humeralis* has been found on Tutuila, Upolu, and Savaii, and *P. buxtoni* has been found on these islands as well as Manua.

CERAMBYCIDAE

Ceresium reticulatum Aurivillius, *Insects of Samoa* 4(2): 139, pl. 1, fig. 1, 1928.

One specimen was beaten from a shrub. This species is known only from Tutuila and Upolu.

Opsis obtusipennis Aurivillius, *Insects of Samoa* 4(2): 147, 1928.

Two specimens were beaten from shrubs. This species was described from Tutuila and has not been found elsewhere.

Sciadella variabilis Aurivillius, Denkschr. K. Acad. Wiss. Wien., Math.-Nat. Kl. **89**: 693, 1913.

Five examples were beaten from shrubs; it is known from Tutuila and Upolu.

Odontorhabdus dentipes Aurivillius, Insects of Samoa **4**(2): 151, pl. 1, fig. 5, 1928.

Two females were beaten from shrubs. The type series came from Tutuila and Upolu.

CHRYSOMELIDAE

Stygnobia aenescens Maulik, Insects of Samoa **4**(3): 182, fig. 3, 1929.

Five examples were beaten from shrubs and one was taken from *Inocarpus edulis*. This species is common on foliage and it jumps actively. This species has not been found outside of Tutuila.

Stygnobia variabilis Maulik, Insects of Samoa **4**(3): 186, fig. 5, 1929.

Two specimens were beaten from shrubs. This common species is widespread on Tutuila, Upolu, and Savaii.

Aulacophora quadrimaculata (Fabricius).

Crioceris quadrimaculata Fabricius, Sp. Ins. **1**: 152, 1781.

A single example of this usually abundant species was taken from the flower of a cucurbit. The species has been recorded from Manua, Tutuila, Upolu, and Savaii in Samoa.

ANTHRIBIDAE

Araecerus eudelus Jordan, Insects of Samoa **4**(2): 165, fig. 4, 1928 (fig. 1, *k*).

I have appended hereto a description of a well-developed male of this species to supplement Jordan's original description.

Male: derm piceous to black, the appendages and elytra mostly reddish, club of the antenna darker than the basal segments, femora each with a submedian dark cloud; pubescence on the head mostly yellow, that of the prothorax yellow with some obscure dark areas, that on the elytra basically yellow but with numerous, irregular patches of black pubescence; vestiture of the legs golden, that on the venter predominantly gray or grayish yellow.

Head with the longitudinal dorsal outline forming a strongly convex curve with that of the rostrum; densely, comparatively coarsely punctate, each puncture bearing a coarse, prostrate, anteriorly directed seta; eyes prominent,

each, when measured from the front, almost half as wide as the interocular area. *Rostrum* with the sculpture and vestiture continuous with that of the head; the interscrobular area three fourths as broad as the interocular area; the distance between the apex of the eye and the base of the mandibular sinus, as measured on the side, one third the frontal breadth of the rostrum between the bases of the mandibular sinuses. *Antennae* capable of reaching the first ventrite, with the lengths of the funicular segments as follows: (1, 7) (2, 5) (3, 12) (4, 9) (5, 10) (6, 9) (7, 9) (8, 7), when bent back over the eye, segment 3 distinctly passing behind the fore margin of the prothorax; club with the segments shaped as illustrated, the lengths and greatest breadths of the segments as follows: (1, 9:4) (2, 6.5:4.5) (3, 7.5:4.5). *Prothorax* broadest between the basal angles and there about one third broader than the median length (6.5:4:3), broadly rounded on the sides and apex; the baso-lateral angles conspicuously and strongly produced backward around the elytral humeri, the basal margin very slightly convex between the angles, almost truncate; the lateral carina forming a rounded acute angle where it joins the basal carina at a distance equal to half the length of the third antennal segment above the apex of the baso-lateral angle, thence running forward in a slight arc to the basal third of the prothorax; coarsely reticulate, densely, coarsely, reticulately punctate throughout; the posterior part of the disk slightly depressed. *Elytra* about three fifths as broad as long (3.2:4.8), twice as long as the lateral length of the prothorax, the longitudinal dorsal outline slightly gibbose near the base and there distinctly higher than the base of the pronotum, narrower at the base than the base of the prothorax, broadest at about the middle and there no broader than the base of the prothorax, only slightly arcuate on the sides and gradually narrowed to the broadly rounded apex; striae well impressed and punctate; intervals slightly convex, the second twice as broad as the first at the middle. *Legs* with the fore tibiae longer than the fore femora (4.5:4.0), without an apical mucro, with numerous, small tubercles on the inner surface giving rise to long hairs which are about as long as the breadth of a tibia; anterior tarsi with the first three segments conspicuously flattened and with long hairs, similar to those of the tibiae below, the first segment fully one half as long as a tibia and slightly longer than the following three segments together, about twice as broad as thick, the ventral surface slightly concave, asperate, coarsely and densely punctate; the second segment two tenths longer than broad, twice as long as three, four slightly longer than two. *Sternum* with the pubescence dense; metasternum at its narrowest point between the mid and hind coxae longer (12:10) than the longitudinal chord of a metacoxa at the trochanter, coarsely punctate, especially laterally. *Venter* with the first three ventrites coarsely and densely punctate throughout, except on the sides where the punctures are in a basal and apical row only, the fourth at the middle and the fifth with small punctures, the fifth longitudinally concave. *Pygidium* one third broader than long, densely punctate, roundly acuminate, the lateral margin somewhat flangelike basally. Length: 2.0-3.25 mm.; breadth 1.25-1.6 mm.

This is a variable species, but it can be easily separated from the other three species found in Samoa, *Araecerus vieillardii* (Montrouzier), *A. fasciculatus* (De Geer) and *A. sublaevis* Jordan, because of its strongly projecting hind angles of the prothorax, in addition to other characters. The type series came from Manua, Tutuila, and Upolu.

Cisanthribus nitidus, new species (fig. 1, *d, f, g, m*).

Derm shiny black in mature specimens, with the appendages and lower surfaces yellowish brown; dorsum without vestiture.

Head evenly convex laterally and longitudinally, minutely punctate, not setose; eyes about four fifths as broad as long, slightly longer than one half of the narrowest interocular breadth (5:9); interscrobial area seven ninths as broad as the narrowest interocular area, the inner edges of the scrobes slightly elevated. *Rostrum* sculptured like the head; with some scattered setae and several long coarse setae on the labrum that project beyond the apices of the closed mandibles; the extreme rostral breadth distinctly more than twice as great as the distance between the base of the labrum and a line drawn between the dorsal margins of the scrobes (13:5). *Antennae* with the first segment arcuate, gradually enlarged from the base to apical third, as long as 2 plus 3 plus 4, 2 as long as 3 plus 4 plus 5, as broad at the apex as the length of 3, 3 about as long as 4 plus half of 5, 5 to 8 subequal in length, all distinctly longer than broad; club longer than the preceding five segments, asymmetrical, 9 as long along the straight side as 8 plus half of 7, and almost one third longer than 10 which is about as long as 11 on the straight side, 11 as long on the straight side as the breadth of the apex, apical margin slightly concave, 9 one fourth broader than the length of the straight side, 10 twice as broad as long. *Prothorax* almost twice as broad as long, subhemispherical in anterior outline; finely but distinctly punctate, the punctures separated by about the breadth or slightly more than the breadth of a puncture; the dorsal carina indistinct, the lateral carina well developed throughout, forming a slightly obtuse angle with the basal carina, the lateral carina two thirds as long as the mid-dorsal line of the prothorax as measured from the side. *Elytra* subglobose, two and two thirds times as long as the prothorax, seven eighths times as broad as long, strongly convex dorsally and laterally, longitudinal dorsal outline almost continuous with that of the prothorax; base slightly, broadly emarginate; confusedly punctate, the punctures similar to those on the pronotum or slightly larger; the lateral carina strongly developed; the broadest part of the inflexed side of an elytron about as broad as the median length of the first ventrite. *Legs* with the first fore tarsal segment about as long as broad, slightly longer than the second, not longer than the breadth of the apex of a tibia, second segment about two fifths broader than long, about as long as three, 4 slightly shorter than the preceding three segments. *Sternum* with the median nodose process of the mesosternum strongly developed and produced forward beyond the fore edges of the mesocoxae. *Venter* reticulate, minutely punctate, the punctures bearing prostrate hairs. *Pygidium* sparsely punctate and with only a few inconspicuous setae; one fourth broader than long in the male and with the apex rounded; twice as broad as long in the female and broadly subtruncate at the apex. Length: 1.25-1.50 mm.; breadth, 0.7-0.9 mm.

Samoa: Tutuila, near Fagatogo reservoir. I collected the male holotype, female allotype and five paratypes on June 2, 1938. One specimen was found on a stump of *Inocarpus edulis*, the others were beaten from shrubs.

This is the second species of the genus. It is closely allied to and very similar to the genotype from the Society Islands (*Cisanthribus convexus* Zimmerman, 1938). The mandibular dentition is distinct;

this species has two preapical teeth on the left mandible, but *C. convexus* has only one. The interscrobial distance on the new species is greater than that on the genotype. Both dorsal and lateral outlines of the new species are more convex than are those of *C. convexus*. The pygidium of *C. convexus* slants conspicuously ventro-anteriorly but it does not do so on *C. nitidus*, and on *C. nitidus* the pygidium is broader than on *C. convexus*. Both species lack wings.

CURCULIONIDAE

Sphaerorrhinus puncticollis Marshall, Haw. Ent. Soc., Proc. 4: 585, 1921.

Two examples were beaten from shrubs. This species is evidently confined to Tutuila and Manua.

Elytrurus bicolor Marshall, Haw. Ent. Soc., Proc. 4: 588, 1921; Insects of Samoa, 4(5): 260, fig. 3, 1931.

Elytrurus bivittatus Marshall, Haw. Ent. Soc., Proc. 4: 588, 1921. Synonymy by Marshall, Insects of Samoa 4(5): 260, fig. 3, 1931.

Two specimens were beaten from broad-leaved shrubs. This is a widely distributed Samoan weevil found on Tutuila, Upolu, and Savaii.

Amblycnemus stevensoni Marshall, Insects of Samoa 4(5): 267, fig. 6, 1931.

One example was beaten from a shrub; it has also been found on Upolu.

Microcryptorhynchus analis Marshall, Insects of Samoa 4(5): 282, fig. 11, *b*, 1931.

Seven specimens were beaten from various shrubs. This species was previously known only from the high lands of Upolu.

Deretiodes swezeyi Marshall, Insects of Samoa 4(5): 292, fig. 14, 1931.

One specimen was found on a stump of *Inocarpus edulis*. The types were found beneath dead bark by Swezey on Tutuila.

Phanerostethus maculosus, new species (fig. 1, *a, e*).

Derm black, the appendages diluted with red; dorsal scaling variable, basically grayish, whitish, or grayish yellow, irregularly and variably marked

or tessellated with patches of dark brown or black scales, in some examples with many of the pale scales replaced by yellow scales; scutellum clothed with either white or yellow scales; legs with mostly white and gray scales, their setae white; meso- and meta-pluræ and lower surfaces white or gray and usually with a yellowish cast.

Head with the crown rather coarsely punctured, the sculpture hidden by the dense scaling; the scales large, round, flat, not arranged like honey comb; interocular area densely squamose about to the apices of the eyes in both sexes, the scaling continued slightly more distad along the sides in the male; with a row of conspicuous, erect, white, spatulate, squamiform setae continued from the rostrum along the inner margins of the eyes and with rather similar, but usually less conspicuous, scattered setae on the interocular area. *Rostrum*, in the male irregularly and distinctly carinate almost to the antennae, thence densely, subconfluently punctate; less coarsely punctate and indistinctly carinate toward the base in the female. *Antennae* with the scape almost four times as long as its greatest breadth, as long as the first three funicular segments; first funicular segment twice as long as broad, as long as 2 plus 3, sub-cone-shaped, at least one fourth broader than 2, 2 two fifths longer than broad, as long as 3 plus one half of 4, 3 to 7 successively slightly shorter and more transverse, 7 distinctly transverse and about as broad as the length of 2; club fully as long as the four preceding segments. *Prothorax* almost as long as broad, broadly rounded on the sides to about the apical fourth and there shallowly but distinctly constricted, the subapical constriction continued broadly and conspicuously across the dorsum; base with a shallow impression in front of the scutellum, this impression continued forward on the disk as a shallowly impressed, usually rather obscure, median line; coarsely, densely, reticulately punctate throughout, the interstices between the punctures narrower than the diameters of the punctures, each puncture capped by a large round, flat or shallowly concave scale; base with the scales smaller, denser, ovate, those in the median impression paler and more conspicuous than the others; with numerous, evenly dispersed, conspicuous, long, erect, spike-like setae over all. *Scutellum* small. *Elytra* without calli or fascicles; almost three fourths as broad as long (3:4.5), twice as long as the prothorax; evenly arcuate on the sides from the base to the shallowly impressed subapical constriction; the longitudinal dorsal outline evenly convex, reaching its summit at slightly before the middle and there on a higher plane than the prothorax; basal margin subtruncate, but sometimes slightly sinuous; striae narrow, their punctures mostly small on the disk, larger on the sides, the seventh stria usually not reaching the base, or confluent with the eighth near the base, the tenth stria obsolete, the ninth complete; intervals distinctly convex, the first less so than the others and narrower than the second and becoming distinctly narrower toward the base and there only one scale wide, all of the intervals, except the outer two or three or parts of them, with a row of conspicuous, erect, spike-like setae similar to those on the prothorax and densely clothed with large, rounded, mostly imbricated squamae. *Legs* with the femora and tibiae densely clothed with closely appressed squamae and studded with numerous conspicuous, slanting, straight or lanceolate setae. *Sternum* with the pectoral canal squamose only on the sides in front of the fore coxae, the mesosternal receptacle terminating at the middle of the mesocoxae in both sexes, with well-developed side walls that reach the fore coxae and project below the level of the metasternum; metasternum flattened or shallowly concave in both sexes, densely squamose, with numerous squamiform setae projecting slightly above the scaling. *Venter*

densely squamose throughout and with short squamiform setae projecting over the squamae, the scales imbricated, oval or rounded, the clothing on the first ventrite similar to that of the metasternum and denser than that of the other ventrites; first ventrite only slightly concave in the male and hardly different from the female; ventrites three and four with a single transverse row of slanting spatulate squamiform setae; setae on the fifth ventrite becoming hairlike posteriorly. Length: 2.5-3.0 mm.; breadth: 1.3-1.5 mm.

Samoa: Tutuila, near Fagatogo reservoir. I collected the male holotype, female allotype, and ten paratypes. The holotype, allotype, and four paratypes were found resting and in copulation on freshly cut stumps of *Inocarpus edulis*, the other specimens were beaten from limbs of shrubs and trees.

This is the sixth species of *Phanerostethus* to be described. Marshall described the genotype from Samoa (Malololelei, Upolu), I described two Society Islands species and two from Fiji. This new species is quite distinct from any previously described and may be distinguished from its Samoan congener as follows:

KEY TO THE SAMOAN PHANEROSTETHUS

- Elytra with a conspicuous callus on the third interval at the top of the declivity; intervals three, five and seven more elevated than the others and bearing shiny granules; strial punctures large and coarse on the disk, broader than the intervals.....**P. dilophus** Marshall.
- Elytra with the intervals without calli or granules; strial punctures on the disk small and inconspicuous; dorsum rather densely set with long, erect, spike-like setae.....**P. maculosus** Zimmerman.

There is an error in my paper "The Genus *Phanerostethus* in Fiji" (Bishop Mus. Occ. Papers, 14(17): 317-321, 1939). On page 318, fourth line from the bottom, read "striae" instead of "intervals."

Trigonopterus bicolor Marshall, Haw. Ent. Soc., Proc. 4: 592, 1921.

One specimen was collected. This species is known from Tutuila only.

Ampagia cribrellicollis (Fairmaire) Marshall, Insects of Samoa 4(5): 306, 1931.

Trigonopterus cribrellicollis Fairmaire, Soc. Ent. France, Ann. VI, 1: 316, 1881.

Six specimens were beaten from shrubs; it is evidently a common species and is recorded from Tutuila, Upolu, and Savaii.

Gitonischius tubicollis Marshall, *Insects of Samoa* 4(5): 328, fig. 24, 1931.

I took one specimen from a dead *Cyathea* frond. The type series, from Tutuila, is recorded from "nutmeg tree", but that record is in error.

Stenotrupis myristicae Marshall, *Insects of Samoa* 4(5): 329, 1931.

I took 30 specimens from dead *Cyathea* fronds. This species, like the preceding, was recorded as having been taken from a nutmeg tree on Tutuila. Mr. Swezey, who collected the type series of both species, agrees that an error was made in labeling the specimens, and that he recalls having collected the specimens from *Cyathea* fronds, as I did.

Macrancylus meridianus, new species (fig. 1, *b, i*).

Derm shiny, piceous to black, the head, rostrum and elytra more diluted with red than the pronotum in mature specimens, appendages and three distal ventrites diluted with red, the remainder of the lower surfaces black; dorsal setae pale, minute, inconspicuous.

Head as broad across the eyes as the distance from the hind margin of an eye to the apex of the rostrum or the distance between the pronotum and the insertion of the antennae; the distance from the anterior edge of the pronotum to the hind edge of an eye, measured from the side, two thirds as great as the distance from the anterior edge of an eye to the apex of the rostrum; distinctly constricted on the sides at about the length of an eye, as measured from above, behind the eyes, the constriction not continued across the dorsum; the longitudinal dorsal outline continuous with that of the rostrum; dorsal puncturation beyond the postocular constrictions continuous with that of the rostrum, the punctures small, separated by interstices about as broad as the punctures, the area behind the postocular constrictions with smaller, more widely spaced punctures; the eyes interrupting the lateral contour of head and rostrum, extending laterally beyond a line drawn through the eyes from the sides of the head to the sides of the rostrum for about one half the breadth of an eye as seen from above, each eye slightly higher than long, as seen from the sides. *Rostrum*, measured from the side, as long from the fore edge of an eye to the apex as the distance between the fore edge of an eye and the prothorax, three sevenths as long as the prothorax, about twice as long as an eye, less than three fourths as long as the breadth of the apex of the pronotum (3.0:4.2), almost parallel-sided beyond the eyes and not obviously narrowed; puncturation similar to and continuous with that of the front, but becoming finer distally; antennae inserted at half the length of an eye in front of the eyes, the posterior margin of the scrobe contiguous with the anterior and lower margins of the eyes and continued back to the middle of the eyes. *Antennae* with the scape reaching behind the eyes to the postocular constriction, longer than the funiculus plus the club; funiculus (detached and the segments measured from beneath) with the first segment much larger than any of the others, as long as broad, as long as the following three segments together, two to seven successively broader and more transverse; club fully as long as the three preceding segments. *Prothorax* longer than broad (3.8:3.0, male holotype; 3.9:3.4, female allotype), base and

apex subtruncate, arcuately narrowed on the sides from the base to the distinct subapical impression which is as far from the apical margin as is the postocular constriction of the head, the subapical constriction continued or not continued distinctly across the dorsum, the longitudinal dorsal contour evenly arcuate from base to the subapical constriction and continuous with that of the head, the area between the constriction and the apex in some examples more convex and interrupting the longitudinal dorsal outline of head and pronotum; dorsal punctures about one and one half times as large as those on the front of the head, normally separated by interstices not greater than their diameters. *Elytra* truncate at the base, subparallel-sided to about the apical two thirds, about twice as long as broad, about twice as long as the prothorax; striae sharply defined, deep, their punctures close, well developed, crenulating the sides of the intervals, somewhat more than one half as broad as the intervals, bearing indistinct, microscopical setae, the outer stria distinct only to about the middle of the first ventrite, thence confluent with the ninth, seventh and eighth enclosed above the apex of the fourth ventrite by the seventh and ninth intervals which fuse to form a distinctly elevated callus from there nearly to the first interval, seventh striae indistinct or coalescing with the eighth just in front of the metacoxae, fourth and fifth striae terminating above the fourth ventrite and enclosed by the fourth and sixth intervals, first, second and third striae continued to the fused seventh and ninth; the intervals each bearing a row of small but distinct punctures which bear microscopical setae, the first intervals expanded on the declivity, the right one almost twice as broad as the left at its apex. *Legs* with the femora with scattered punctures bearing minute setae; tibiae strongly uncinata and mucronate, the fore pair broadly and shallowly excavated on the outer sides above the insertion of the tarsi, and angulate on the posterior edge; third tarsal segment one fourth broader than long and one fourth broader than the second, fourth segment almost as long as the three preceding together, claws divergent. *Sternum* with the puncturation rather similar to that on the pronotum; prosternum three times as long in front of as behind the coxae, the intercoxal process about half as broad as a coxa; intercoxal process of the mesosternum with an arcuate hind margin three tenths broader than a mesocoxa, on the same plane as the metasternum; metasternum as long between the mid and hind coxae as the length of the first two ventrites behind the metacoxae. *Venter* with the puncturation similar to that on the metasternum, the first ventrite shallowly concave in the middle in the male, the punctures bearing dense, fine, golden hair in the distal half of the depression, convex and without such hair in the female. Length: (excluding the head and rostrum) 2.0-3.0 mm.; breadth: 0.65-0.90 mm.

Samoa: Tutuila, below Fagatogo reservoir. I collected the holotype male, allotype female, and seven paratypes from under the bark of dead stumps of *Inocarpus edulis*.

This species differs from the genotype, *Macrancylus linearis* LeConte, because it is larger, heavier bodied, black instead of reddish brown, has a shorter, stouter, straighter rostrum, more prominent eyes, and because its prosternum is three times as long in front of as in back of the fore coxae, instead of only twice as long. The new species can be separated from the third species of the genus, the Guam *M. niger* Zimmerman (description in press), because it is

broader, the postocular constriction does not extend across the dorsum, the eyes are more prominent and the rostrum is not distinctly narrowed distally.

KEY TO THE GENERA OF SAMOAN COSSONINAE¹

1. Antennal funiculus 4-segmented; tarsi 5-segmented.....
.....*Dryophthorus* Schoenherr.
- Antennal funiculus 5- or 7-segmented; tarsi 4-segmented..... 2
- 2(1). Antennal funiculus 5-segmented..... 3
- Antennal funiculus 7-segmented..... 8
- 3(2). Fore coxae subcontiguous, separated by less than half the breadth
of a coxa.....*Gitonischius* Marshall.
- Fore coxae well separated, the intercoxal area one half to fully as
broad as a fore coxa..... 4
- 4(3). Antennal scapes reaching to or passing behind the hind margins of
the eyes; long slender species.....
.....part (sens. str.) of *Stenotrupis* Wollaston.
- Antennal scapes not passing beyond the middle of the eyes..... 5
- 5(4). Head with a constriction at or behind the hind margins of the eyes
that may or may not be continued across the dorsum..... 6
- Head without any lateral or dorsal postocular constriction..... 7
- 6(5). Cephalic constriction distant from the hind margin of the eyes.....
.....part (sens. lat.) of *Stenotrupis* Wollaston.
- Cephalic constriction situated at the hind margin of the eyes.....
.....*Pentarthrum* Wollaston.
- 7(5). Elytral intervals with one edge distinctly, narrowly but conspicu-
ously carinate; dorsal and lateral contours of elytra and pro-
thorax subcontinuous; eyes not separated from the prothorax by
distinctly more than the longitudinal chord of an eye.....
.....*Dynatopechus* Marshall.
- Elytral intervals not at all carinate; dorsal and lateral outlines of
prothorax and elytra obviously discontinuous; eyes separated
from the prothorax by much more than the longitudinal chord of
an eye.....*Microtribus* Wollaston.
- 8(2). Prosternum deeply canaliculate; pronotum produced forward, cover-
ing the head from above; *Dryophthorus*-like species.....
.....*Glyphostethus* Marshall.
- Without such characters..... 9
- 9(8). Fore coxae separated by less than one half the breadth of a coxa;
small testaceous to dark brown species.....10
- Fore coxae separated by more than one half the breadth of a coxa;
mostly black species.....11
- 10(9). Third tarsal segments with the distal margins entire, not emargi-
nate; the suture between ventrites one and two traceable across
the middle.....*Ochronanus* Pascoe.
- Third tarsal segments distinctly emarginate distally; the suture
between ventrites one and two obliterated in the middle.....
.....*Rhyncolosoma* Champion.

¹ *Notiosomus* Wollaston is omitted from the key, because I believe that the Samoan species cannot be distinguished from *Oxydema* Wollaston.

- 11(9). Antennae inserted at three or four times the length of an eye in front of the eyes.....**Mystorrhinus** Marshall.
 Antennae usually inserted at less than the length of an eye in front of the eyes, never inserted at more than one and one half times the length of an eye in front of the eyes.....12
- 12(11). Rostrum, measured from the side, distinctly longer from the anterior margins of the eyes to the apex of the epistome than the length of the head from the prothorax to the apices of the eyes....13
 Rostrum, measured from the side, not longer than the anterior margin of the eyes to the apex of the epistome than the length of the head from the prothorax to the apices of the eyes.....17
- 13(12). Antennal scapes not reaching the middles of the eyes.....**Proëces** Schoenherr.
 Antennal scapes reaching almost to, to, or distinctly beyond the hind margins of the eyes.....14
- 14(13). Third tarsal segments entire, not distinctly emarginate or bilobed; dorsum usually conspicuously flattened.....**Cossonus** Clairville.
 Third tarsal segments distinctly emarginate or bilobed; dorsum not markedly flattened.....15
- 15(14). Dorso-lateral margins of the rostrum conspicuously emarginate just behind the insertions of the antennae.....**Aphanocorynes** Wollaston.
 Dorso-lateral margins of the rostrum not emarginate behind the antennal insertions16
- 16(15). Rostrum obviously expanded distally, broader at the apex than at the base.....**Oxydema** Wollaston.
 Rostrum not expanded distally, narrower at the apex than at the base.....**Phloeophagosoma** Wollaston.
- 17(12). Rostrum very short and broad, the median line of the underside not longer than the buccal cavity; the intercoxal process of the mesosternum narrower than a mesocoxa; metepisterna very broad, about twice as broad at the middle as the epipleural margin of the elytra; the lateral elytral striae not impressed.....**Stereoderus** Wollaston.
 Rostrum longer along the median line on the lower side than the buccal cavity; the intercoxal process of the mesosternum about as broad or broader than a mesocoxa; metepisterna only about as broad as the epipleural margin of the elytra at the middle; the lateral elytral striae impressed.....18
- 18(17). Metasternum fully as long or longer at its narrowest point between the mid and hind coxae as the length of the first two ventrites measured together behind a metacoxa.....**Macrancylus** LeConte.
 Metasternum shorter between the mid and hind coxae than the length of the first and second ventrites together behind a metacoxa19
- 19(18). Body subcylindrical; antennae inserted behind the middle of the rostrum.....**Rhyncolus** Germar.
 Body depressed, usually conspicuously flattened; antennae inserted at or beyond the middle of the rostrum.....part of **Cossonus**² Clairville.

² *Cossonus* is placed here too, to receive *C. quaerens* Marshall which has an abnormal rostrum.

PLATYPODIDAE

Crossotarsus externodentatus (Fairmaire).

Platypus externodentatus Fairmaire, Rev. Mag. Zool. II, 2: 51, 1850.

One example was taken from an *Inocarpus edulis* stump. This species is widespread in the Pacific and has been reported from Tutuila and Upolu in Samoa.

SCOLYTIDAE

Scolytomimus maculatus Beeson, Insects of Samoa 4(5): 223, figs. 3, 4, 1931.

One specimen was beaten from a shrub. The type series came from Tutuila and Upolu.

Xyleborus bicolor unimodus Beeson, Insects of Samoa 4(5): 238, 1931.

One female was taken from an *Inocarpus edulis* stump; this subspecies is known only from Tutuila.