

OCCASIONAL PAPERS
OF
BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII

Volume XVIII

April 6, 1945

Number 6

**Notes on Samoan Elaterid Beetles with Descriptions
of Two New Species**

By R. H. VAN ZWALUWENBURG

ASSOCIATE IN ENTOMOLOGY, BERNICE P. BISHOP MUSEUM

Among the collections made by O. H. Swezey and E. C. Zimmerman on the Bernice P. Bishop Museum Samoan Entomological Expedition in 1940, is a series of elaterid beetles of considerable interest. Among them are two species described from uniques in 1928 and not collected since, two additional species here described for the first time, and one new island record. New records for the archipelago are printed in capital and small capital letters, new island records in italic. The figures illustrating this paper were drawn by J. T. Yamamoto of the Hawaiian Sugar Planters' Association Experiment Station, Honolulu.

Meristhus oceanicus, new species (fig. 1).

Length, 1.00-1.25 mm. Robust, oblong-ovate, convex; light brown with upper margin and sides of head, and outline of scutellum, darker brown; elytra dark brown with a vaguely oval area on anterior half lighter brown, with another vaguely round area on apical third also light brown; dorsum clothed with light brownish scales shaped like elongated tear drops, arising from relatively coarse punctations; clothing on underside inconspicuous. Dorsal surface granulate; propleura finely punctate, prosternum and abdomen relatively coarsely punctate.

Front flat, anterior half vaguely depressed. Antennae very short, 2d segment subtriangular, 3d globular, shining, shorter than 2d; segments 4-10 transverse, bluntly produced at exterior apical angle; 11th acutely narrowed apically, slightly longer than 9 and 10 together. (These characters are described from one of the paratypes, the antennae being more or less completely concealed in the sterno-pleural sutures in all the other specimens before me.)

Prothorax slightly wider than long; sides crenulate on anterior half, undulately arcuate along middle, then suddenly narrowed near apex to anterior angle; lateral margin well defined but incomplete anteriorly. Pronotum convex in both dimensions, disk slightly flattened; shallowly impressed along middle; anterior and posterior angles depressed; basal declivity rather abrupt, base shallowly

impressed medianly. Hind angles subparallel, broad, without carina; emarginate on outer side near tip to produce a small apical tooth; subtruncate posteriorly. Prosternal lobe almost squarely truncate, rounded on sides, not crenulate. Propleura each with well-defined groove for reception of anterior tarsus.

Scutellum transverse, prominent anteriorly, less so behind; finely carinate along middle, this carina sometimes failing to attain the hind margin. Elytra at base not quite as wide as width across hind angles of prothorax, obovate, about 1.25 times combined length of head and prothorax, convex in both dimensions; sides widened at about anterior third, thence narrowed to conjointly rounded apices. Striae finely punctate, intervals granulate; 6th interval not extending forward as far as the other intervals, 7th, at base, with a small, acute prominence, accentuated by a shallow depression which extends medially from its base across the base of intervals 3 to 5.

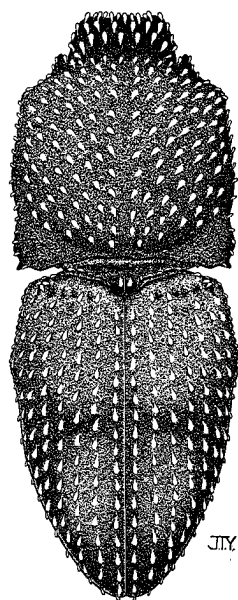


FIGURE 1.—*Meristhus oceanicus*, new species: holotype (probable female), length about 1.00 mm.

Described from five specimens of undetermined sex: holotype (believed to be a female because of its larger size, 1.25 mm.) and four paratypes. All were collected at the government garden, Taputimu, *Tutuila*, SAMOA, Aug. 7, alt. 100 ft., sweeping sweetpotato plants, Zimmerman. The type material is in Bishop Museum, except for one paratype in the collection of the Hawaiian Sugar Planters' Association Experiment Station.

The markings on the elytra are most evident in the holotype. The prominence at the base of the seventh stria interval of the elytra distinguishes this from all other described species of the genus. The mucronate apex of the hind angle of the prothorax is similar to that described for *Meristhus nipponensis* Lewis, but otherwise the two species have little in common. *M. oceanicus* is proportionally wider than *M. scobinula* Candèze, more convex, and has the third antennal segment relatively shorter; the disappearance of the lateral marginal carina along the abruptly narrowed anterior portion of the prothorax is common to both species. This is one of the smallest elaterids known to me; its occurrence in mid-Pacific, with no congener nearer than Timor, is most interesting.

Alaus samoensis Van Zwaluwenburg, *Insects of Samoa* 4(2): 112, fig. 1, 1928.

Tutuila, Fagatogo, by beating, alt. 800 ft., Aug. 3, Zimmerman. Previously known only from the island of Upolu, and described from a unique.

Propsephus upoluensis Van Zwaluwenburg, *Insects of Samoa* 4(2): 113, fig. 2, 1928.

This species was described from a single specimen from Malolo-lelei, Upolu, Samoa. A second specimen was collected on the same island at Afiamalu, alt. 2,100 ft., beating, June 19, Zimmerman.

Propsephus tongaensis (Candèze), *Elat. nouv.* 2: 25 (*Anchastus*), 1878.

Nineteen specimens were taken as follows:

Tutuila: Naval Station, at light, Aug. 12-24, Swezey and Zimmerman (5 specimens); Naval Station, at light, Aug. 21, Swezey. Utulei, alt. 600 ft., beating dead branches, Aug. 24, Zimmerman. Fagatogo, alt. 1,000 ft., beating, Aug. 28, Zimmerman.

Upolu: Afiamalu, alt. 2,200 feet, beating dead branches, June 22, Zimmerman; alt. 2,200 ft., at light, June 25-30, Swezey and Zimmerman (4 specimens); alt. 2,200 ft., at light, July 10, Swezey and Zimmerman; alt. 2,200 ft., beating, July 5, 11, Zimmerman (2 specimens); alt. 2,200 ft., beating dead branches, July 10, Zimmerman. Tapatapao, alt. 1,000 feet, at light, July 24, Swezey and Zimmerman. Vailele Plantation, alt. 100 ft., coconut, July 26, Zimmerman.

Propsephus euaënsis (Schwarz), *Deutsche Ent. Zeitschr.*, 352 (*Psephus*), 1901.

Seventeen specimens as follows:

Tutuila: Fagatogo, near reservoir, alt. 800 ft., beating, Aug. 3, Zimmerman (2 specimens); alt. 900 ft., beating shrubbery, Aug. 25, Zimmerman; alt. 1,000 ft., beating, Aug. 28, Zimmerman. Amouli, alt. 400 ft., beating dead branches, Aug. 2, Zimmerman. Matafao trail, alt. 1,300 ft., beating dead branches, Aug. 17, Zimmerman. Utulei, alt. 700 feet, Aug. 18, Swezey; alt. 600 ft., beating dead branches, Aug. 24, Zimmerman.

Upolu: Afiamalu, alt. 2,100 ft., beating shrubbery, June 13, Zimmerman (3 specimens); alt. 2,200 ft., at light, June 22, Swezey and Zimmerman; alt. 2,200 ft., beating, June 11, Zimmerman; alt. 2,200 ft., June 16, Zimmerman; alt. 2,200 ft., at light, June 23-28, Swezey and Zimmerman (3 specimens).

Propsephus major (Candèze), *Elat. nouv.* 2: 25 (*Anchastus*), 1878.

Sixteen specimens, from Upolu: Afiamalu, alt. 2,200 ft., at light, June 7 to July 11, Swezey and Zimmerman (7 specimens); alt. 2,200 ft. at light, June 12, 24, Zimmerman (2 specimens); alt. 2,100 ft., beating shrubbery, June 13, Zimmerman (2 specimens); alt. 2,200 ft., beating shrubbery, June 7, Zimmerman; alt. 2,200 ft., June 12, Zimmerman. Sinaele, alt. 1,400 ft., beating, July 27, Zimmerman. Tapatapao, alt. 1,000 ft., at light, July 16 and 19, Swezey and Zimmerman (2 specimens).

Lamononia monticola Van Zwaluwenburg, *Insects of Samoa* 4(2): 118, figs. 5-6, 1928.

Eight specimens, all from Upolu, from which it was described: Afiamalu, alt. 2,200 ft., at light, June 8 to July 4, Swezey and Zimmerman (7 specimens); near Tapatapao, alt. 1,000 ft., beating dead branches, July 13, Zimmerman.

Simodactylus cinnamomeus (Boisduval), *Faun. Océanie, Coleop.*, 106 (*Aeolus*), 1835.

Tutuila: Naval Station, at light, Aug. 14, Swezey and Zimmerman, 1 specimen.

Upolu: Tapatapao, alt. 1,000 ft., at light, July 16-23, Swezey and Zimmerman, 3 specimens.

Simodactylus tasmani Candèze, *Elat. nouv.* 5: 24, 1893.

Tutuila: Pago Pago, northside, alt. 50 ft., beating dead coconut fronds, Aug. 6, Zimmerman, 1 specimen.

Simodactylus buxtoni (Van Zwaluwenburg), *Insects of Samoa* 4 (2): 121, figs. 7-9 (*Roggeveenina*), 1928.

Exceedingly abundant at light in the high mountains of Upolu during June and July. One hundred forty-seven specimens were taken, as follows:

Tutuila: Amouli, alt. 400-800 ft., beating shrubbery, Aug. 2, Zimmerman; Pago-Matafao trail, alt. 2,000-2,100 ft., beating shrubbery, Aug. 13, Zimmerman. Naval Station, at light, Aug. 24, Swezey and Zimmerman.

Upolu: Afiamalu, alt. 2,200 ft., at light, June 8 to July 10, Swezey and Zimmerman (143 specimens); Tapatapao, alt. 1,000 ft., at light, July 19, O. H. Swezey.

There is only slight variation in size in the long series of this species, but the color varies from the usual yellowish brown to mahogany-brown.

Conoderus pallipes (Eschscholtz), In Thon., *Ent. Arch.* 2(1): 32 (*Monocrepidius*), 1829.

Upolu: Apia, June 2, Swezey and Zimmerman; Apia, near seashore, July 28, Swezey, 2 specimens.

Megapenthes arcifrons new species (fig. 2).

Length, 4.4-5.5 mm.; width, about 1.4 mm. More or less cuneate; subnitid. Upper surface generally blackish on yellowish-brown background. Head black with anterior margin narrowly brownish; antennae brown, with first 5 segments, and sometimes part of 6th, darker brown; greater part of pronotum blackish, with lateral bands (widening behind) of yellowish brown, and with an oval black spot on outer edge at about a third and another at about a sixth of the distance from anterior angle to tip of hind angle. Scutellum brown; anterior margin black. Elytra blackish with basal marking extending laterad from 4th interval, and backwards along intervals 7-9 for about a sixth of the elytral length; at anterior third, on intervals 3-5, an ill-defined V in yellowish brown; sutural interval dark brown along entire length; at about posterior third, a yellowish brown, vaguely oval patch extends from interval 4 to outer margin. Body beneath generally brownish, with darker suffusions laterad and on mucral region. Pubescence fine, inconspicuous, yellowish brown; pronotum bearing a few coarser, more erect, sparsely scattered hairs.

Mouthparts directed perpendicularly downward. Frontal margin of head acutely rounded, prolonged and recurved downward at middle. From top of eye a fine carina more or less follows inner margin of eye to terminate above insertion of antenna; at upper third of eye a semicircular carina arises to connect,

across the front, the two carinae which outline the eyes. The space above the connecting carina is flat; that below, shallowly concave and nitid. Punctuation of head fine, somewhat better defined and more close-set above the connecting arched carina, than below. Antennae exceeding prothoracic hind angles by about 3 segments (male) or 2 segments (female); serrate from 4th segment on; 2d and 3d segments small, 3d about half as long again as 2d, the two together shorter than 4th; segments 4-10 subtriangular, similar, diminishing slightly in length toward apex of antenna; 11th slightly longer than 10th, rounded apically; no trace of longitudinal carina on outer face of any of the segments.

Prothorax longer than wide (male), or with length and width subequal (female); sides subparallel, slightly convergent anteriorly. Pronotum moderately convex; punctuation fine, close, on basal portion vague; fine median impression on basal declivity. Hind angles unicarinate, projecting straight backward, incurved near apex, tip acute. Sterno-pleural sutures double, curved near base; closed throughout. Punctuation of propleura coarser, more widely spaced than on prosternum. Mucro grooved between fore coxae; briefly depressed behind coxae, thence subhorizontal to apex; sides of mesosternal cavity moderately sloping in even plane, not prominent.

Scutellum subtriangular, longer than wide, rounded apically, moderately convex, finely punctulate. Elytra at base narrower than width across hind angles of prothorax; sides subparallel to about middle (male) or beyond (female), thence narrowed to conjointly rounded apices. Striae well marked; intervals convex anteriorly, flattened behind. Hind coxal plates widened inward, hind

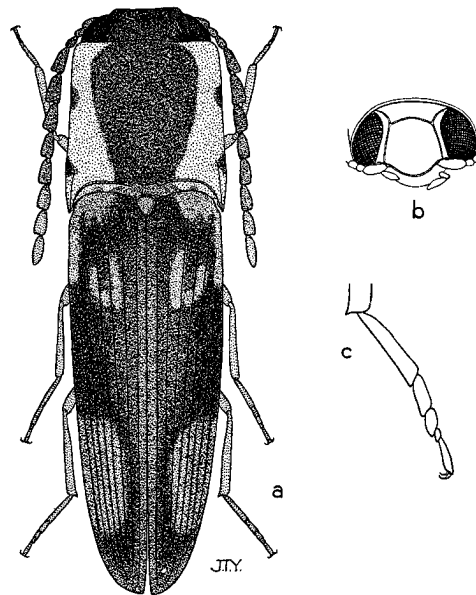


FIGURE 2.—*Megapenthes arcifrons*, new species. Holotype female: a, dorsal view; b, anterior view of head showing arched carina on front; c, tarsus of right hind leg.

margin produced into a definite, but not acute, point. Punctuation of abdomen similar to that of prosternum. Tarsi simple; 1st segment markedly longer than succeeding 3 together; 4th segment narrower than preceding ones and greatly reduced in length, being less than half length of 3d. Last abdominal sternite in both sexes shallowly concave on either side on posterior half, a subcarinate ridge separating the concavity from the flat terminal median portion of the segment.

SAMOA, *Upolu*: holotype female, Tapatapao, Lanutoo trail, alt. 1,200-1,300 ft., beating, July 21; allotype male, same data; one male and one female paratypes, same data as holotype; two male and one female paratypes, Sinaele, alt. 1,400 ft., beating, July 27; and one female paratype, Tapatapao, alt. 800 ft., beating dead branches, July 19, all by Zimmerman. The type material is in Bishop Museum, except for a paratype of each sex in the collection of the Hawaiian Sugar Planters' Association Experiment Station, Honolulu.

Separation of the sexes is believed to be accurate, although based entirely on external characters, as indicated in the text. Some variation in color pattern is evident in the series.

Of the 17 elaterid species known from Samoa, listed below, the Samoan Entomological Expedition collected 12, two of them previously undescribed.

Elateridae Known from Samoa

- Lacon modestus** (Boisduval): Upolu
- Meristhus oceanicus**, new species: Tutuila
- Alaus samoensis** Van Zwaluwenburg: Tutuila, Upolu
- Propsephus euaënsis** (Schwarz): Tutuila, Upolu
- Propsephus gracilicornis** Van Zwaluwenburg: Upolu
- Propsephus major** (Candèze): Upolu
- Propsephus rufipes** (Schwarz): Tutuila
- Propsephus tongaensis** (Candèze): Savaii, Tutuila, Upolu
- Propsephus upoluensis** Van Zwaluwenburg: Upolu
- Lamononia monticola** Van Zwaluwenburg: Upolu
- Simodactylus buxtoni** (Van Zwaluwenburg): Tutuila, Upolu
- Simodactylus cinnamomeus** (Boisduval): Tutuila, Upolu
- Simodactylus tasmani** Candèze: Tutuila
- Conoderus pallipes** (Eschscholtz): Tutuila
- Megapenthes arcifrons**, new species: Upolu
- Melanoxanthus melanocephalus** (Fabricius): Upolu
- Pacificola compta** (Van Zwaluwenburg): Tutuila, Upolu