

**TWO INTERESTING SCALIONIDAE FROM MICRONESIA  
WITH BIOLOGICAL NOTES BY PROF. T. ESAKI**

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## TWO INTERESTING SCELIONIDAE FROM MICRONESIA WITH BIOLOGICAL NOTES BY PROF. T. ESAKI\*

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### 1. Genus *Platyscelio* Kieffer

*Platyscelio* Kieffer, Ann. Mus. Stor. Nat. Genova, vol. 42, p. 11, 1905; Brues, Genera Insectorum, fasc. 80, p. 40, 1908; Kieffer, Genera Insectorum, fasc. 80B, p. 66, 1910.

Type: *Platyscelio pulchricornis* Kieffer, 1905.

This is a very remarkable genus of Scelionidae with greatly flattened body. So far as I am aware, the following species of the genus were hitherto described.

*Platyscelio abnormis* Crawford, 1910 .....Philippines  
*Platyscelio longipennis* Dodd, 1913.....Australia  
*Platyscelio mirabilis* Dodd, 1913 .....Australia  
*Platyscelio pulchricornis* Kieffer, 1905 .....New Guinea  
*Platyscelio punctatus* Kieffer, 1914 .....Australia?  
*Platyscelio wilcoxi* Fullaway, 1913 .....Guam  
*Platyscelio* sp. Brues, 1922.....Fiji Is.

In the spring of this year (1940), I and Mr. S. Yoshimura made a collecting trip to Micronesia, and collected a curious Scelionid referable to the Genus *Platyscelio* Kieffer and to the species *wilcoxi* Fullaway or *abnormis* Crawford. The genus is new to the fauna of the Caroline Islands.

### *Platyscelio abnormis* Crawford

*Platyscelio abnormis* Crawford, Proc. U. S. Nat. Mus., vol. 38, p. 126, ♂, 1910.

*Platyscelio wilcoxi* Fullaway, Proc. Hawaiian Ent. Soc., vol. 2, p. 283, ♀ (nec ♂), 1913 (syn. nov.).

\* Results of Professor T. Esaki's Micronesia Expeditions 1936-1940, No. 46. [Trans. Nat. Hist. Soc. Formosa, XXXI, 209, February, 1941]

In his note on the parasitic Hymenoptera from the Fiji Islands C. T. Brues wrote as follows: "it is possible however, that Fullaway may have had a female and not a male as he supposed at the time the description was written" (*Psyche*, vol. 29, no. 1, p. 22, 1922). My careful examinations of the Caroline material comparing with the descriptions of *abnormis* and *wilcoxi* led to the conclusion that the type specimen of *wilcoxi* should not have been a male but a female, and these two species, *wilcoxi* and *abnormis*, must be identical to each other.

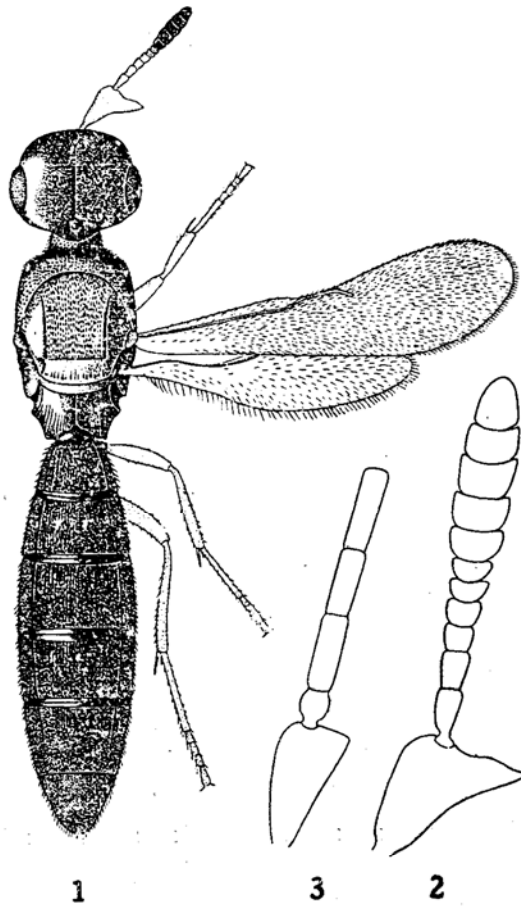


Fig. 1.  
*Platyscelio abnormis* Crawford. 1. Female. 2. Antenna, ♀.  
 3. Five basal segments of antenna, ♂.

To the original descriptions of the sexes of this species the following additions and corrections may be necessary.

♀. Head much broader than long. The length of antenna much larger than the width of head, very much larger than the length of head. Antennae: scape very large, very much dilated dorso-ventrally, triangular, longer than one-third the length of flagellum; relative length of the segments—I: II: III: IV: V: VI: VII: VIII: IX: X: XI=26: 10: 7: 5: 5: 4: 4: 6: 7: 7: 7: 10; relative width of the segments—I: II: III: VII: VIII: IX: X: XI=25: 5: 5.5: 8: 10: 11: 11: 10. Underside of the flattened head: the sides of the occipital foramen longitudinally striate, the area just anterior or ventral to the foramen and the median longitudinal furrow between the oral cavity scaly-reticulated, a pair of somewhat large punctures are recognizable just posterior to the oral cavity, a row of small, sparse punctures are seen between the above-mentioned punctures and the occipital foramen and the row is parallel to the median furrow.

Pronotum not punctate-striate but distinctly and densely punctured, the diameter of a puncture much larger than the distance between two punctures. Propleura with a pair of longitudinal striae along the median line. Mesopleura with some longitudinal, long striae of irregular length. First segment of fore tarsi as long as the following ones taken together (23: 23). First segment of mid-tarsi distinctly shorter than the following ones taken together (20: 24). First segment of hind tarsi very much longer than the following ones taken together (40: 27).

Abdomen very densely punctate-striate.

♂. Very similar to the female. Antennal flagellum much darker in coloration. Antennae 12-segmented, very long, strikingly longer than twice the length of head, each segment very long, slender and cylindrical; scape flattened, but not so wide as in the female; each flagellar segment almost of the same width; relative length of the segments—I: II: III: IV: V: VI: XII=25: 7: 15: 13: 18: 14: 22; scape very much narrowed towards the base, about twice as long as broad at the apex, second segment almost as long as wide, narrowed basally, each of the third, fourth, sixth to eleventh segments more than or about twice as long as wide, fifth segment about three-

times as long as wide, twelfth segment about five-times as long as wide. Hairs on scape very sparse, but on flagellum moderately dense.

First segment of fore and mid-tarsi shorter than the following ones taken together respectively (21: 25 in fore tarsi, 20: 25 in mid-tarsi).

Specimens examined: 1 ♀, 2 ♂♂, Olej-Foup, Tol Islet, Truk Islands, Carolines, 6. iv. 1940, Yasumatsu et Yoshimura leg.; 7 ♀♀, 6 ♂♂, Sabote-Epin, Pata Islet, Truk Islands, 10. iv. 1940, Yasumatsu et Yoshimura leg.; 3 ♂♂, Olej-Foup, 11. iv. 1940, Yasumatsu et Yoshimura leg.

Habitat: Caroline Islands—Truk (New record).

Marianna Islands—Guam (Fullaway).

Philippine Islands—Luzon (Crawford).

## 2. Genus *Microphanurus* Kieffer

*Microphanurus* Kieffer, Das Tierreich, Lief. 48, p. 91, 1926.

Type: *Teleas semistriatus* Nees, 1834.

The Genus *Microphanurus* Kieffer, separable from the Genus *Telenomus* by the bare eyes, was hitherto unknown from Micronesia. In the year 1939, Professor Esaki secured a number of individuals of a *Microphanurus*-species on the Marianna Islands, which may be regarded as representing a new species.

### *Microphanurus esakii* sp. nov.

♀ ♂. Body black. Antennae of female with radicle, scape and segments two to six bright brownish-yellow, segments seven to eleven (club) black. Antennae of male brownish-yellow, four apical segments brown. Legs clear brownish-yellow, coxae black, femora more or less blackened.

♀. Head much transverse, distinctly wider than thorax. Vertex immediately behind the posterior ocelli with a sharp, completely differentiated ridge. Frons without bulges between the antennal insertions and the lower inner margins of eyes; above antennae a little impressed (with a median, low ridge) where it is strongly transversely striated, the central area with some longitudinal and oblique striation, immediately posterior to this area the striation of the

surface tends to fade out and merge into predominant sculpture of head, this sculpture is a combination of two usual types of sculpture, i. e., ill-defined but large, sparse punctures and scaly reticulation,

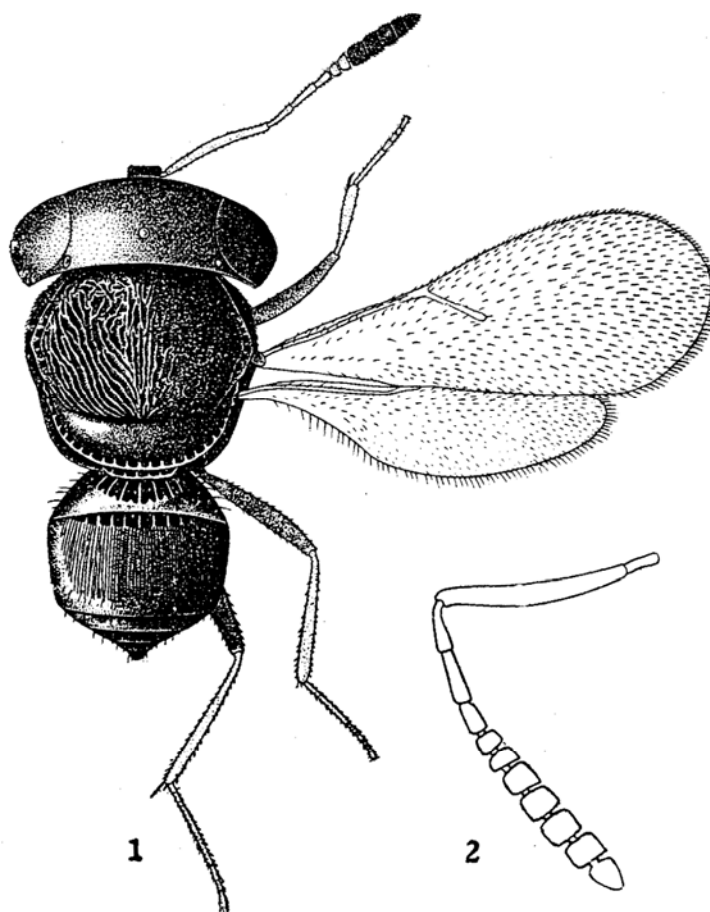


Fig. 2.  
*Microphanurus esakii* sp. nov. 1. Female. 2. Antenna, ♀.

which in certain aspect looks like transverse striation. Ocelli forming a large, low triangle, lateral ocelli almost touching the inner margins of eyes. Head, seen in profile, similar to that of *M. stoicus* Nixon. Genal sulcus sharply margined behind, the resulting ridge being a continuation of the postorbital carina; a second carina is present, extending upwards from the posterior basal corner of mandible and fading out at least at about the lowest point of the eye. Mandibles

short, with two notches at the apex. Antennae 11-segmented; radicle narrow and very short, about one-seventh as long as scape, longer than wide, scape elongate, slightly curved, half as long as flagellum, relative length of the segments—I: II: III: IV: V: VI: VII: VIII: IX: X: XI=38: 9: 10: 6: 4: 4: 6: 6: 6: 6: 7, relative width of the segments—I: II: V: VI: VII: X: XI=5: 3.5: 5: 5.5: 7: 7: 5.2, eleventh segment triangular, longer than wide at the base.

Thorax short, rounded, a little wider than long and, seen in profile, about as high as long, very strongly raised above the level of abdomen, thus it appears unusually large in proportion to the latter. Pronotum very short, seen from above scarcely visible except the sides. Mesonotum uniformly moderately convex, entire surface covered with raised irregular rugosities. Scutellum of the same level as mesonotum, very densely and minutely scaly-reticulate, with the posterior crenate furrow distinctly defined. Postscutellum with the usual transverse delimited area, which is longitudinally costate. Propodeum strongly concave, hidden beneath postscutellum. Mesopleural depression sharply margined in front right down as far as mid-coxae, the depression itself transversely ribbed along its more or less entire middle length. Metapleura completely intersected by raised ridges and rugae. Fore and mid-coxae widely separated. Venation as shown in the figure.

Abdomen small, shorter and narrower than thorax, depressed; seen from above, very slightly wider than long. First tergite distinctly costate except the sides. Second tergite also distinctly costate at the base, strongly, longitudinally striated all over but with a smooth apical and lateral areas.

♂. Quite similar to the female, from which it differs only by the form of the antennae. Antennae 12-segmented, long and filiform. Radicle about one-eighth as long as scape. Flagellum almost three times as long as scape. Relative length of the segments—I: II: III: IV: V: VI: VII: VIII: IX: X: XI: XII=34: 7: 10: 10: 10: 8: 8: 7: 7: 7: 7: 13. Each segment nearly of the same width. Scape about one-seventh as wide as long. Second segment the narrowest, distinctly narrowed towards the base, about twice as long as wide at the apex. Third to fifth segments twice as long as wide, seventh

to eleventh about as long as wide, twelfth more than twice as long as wide at the apex and triangular in shape.

Length: ♀ ♂ about 1.3 mm.

Holotype: 1 ♀, Laulau, Saipan, Mariannas, 6. vii. 1939, T. Esaki leg.

Allotopotype: 1 ♂, the same as above.

Paratopotypes: 42 ♀♀, 1 ♂, the same as above.

Paratypes: 1 ♀, Tatacho-Songsong, Rota, Mariannas, 8. ii. 1936, T. Esaki leg., 1 ♀, Matansha-Calabera, Saipan, 3. v. 1940, Yasumatsu leg.

Habitat: Marianna Islands—Saipan and Rota.

Host: Egg of a Pentatomid, *Coleotichus breddini* Schouteden.

This species is most closely related to the Malayan *M. stoicus* Nixon, but the latter species has the antennal segments of the different relative width and length. Also this species seems to be related to *M. sulmo* Nixon from Ceylon, but the latter has the longer radicle of the antennae and the second abdominal tergite striated almost as far as the posterior margin. *M. catacanthae* Ashmead, from the Philippine Islands, differs from the present species in having the mesonotum very finely punctured. *M. giraulti* Dodd, from the Fiji Islands, differs from the present species in having the legs entirely clear yellow. *M. painei* Ferrière from the Solomon Islands has the radicle of the antennae about one-third as long as the scape and the second abdominal tergite with some weak striae on the middle base.

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All the material discussed in the present paper are preserved in the collection of the Entomological Laboratory, Kyūsyū Imperial University, Hukuoka.

In conclusion I want to express my hearty thanks to Professor T. Esaki for his encouragement rendered in the course of the present study.

## Biological Notes

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The Scutellerine bug, *Coleotichus breddini* Schouteden, is not rare on the Island Saipan, the Mariannas. This bug is found on the foliage, more frequently on young fruits, of *Casuarina equisetifolia* Linné\*, and is often attracted by light in the evening. On July 6, 1939, I collected a number of this bug on the foliage of *Casuarina* on the northern shore of the Laulau Bay, east coast of Saipan. While searching for this bug I discovered a number of a minute black wasp creeping and flying upon the foliage very quickly. No less than twenty specimens of this wasp were captured in a short time. *Casuarina* was otherwise very rarely attacked by insects and I found but nothing other than this bug on that plant at that time. Then I supposed quite naturally that the wasp may be parasitic on the eggs of this bug, which were found occasionally on the same plant. The egg-mass of this bug was generally consisting of fourteen eggs as in the case of many other Pentatomids, and was laid around the needle-like foliage of the plant. I placed about fifteen wasps together with a newly laid egg-mass of the bug, which was pale yellowish green in colour, into a vial. These eggs became pale brown in a few days. Of the fourteen eggs twelve were parasitized by the wasps, and from the other two eggs larvae hatched out on July 12. On July 13 four parasitized eggs became darker, three became slightly darker on one side. On July 15 all the parasitized eggs became black on one side, whitish on the other side. The black parts were representing the head and thorax of the parasite inside. Ten wasps emerged out during the interval from July 17 to July 20, while the other two failed to come out from the egg-shell of the host. As the parasite was fairly large in comparison with the egg of the bug, no case of the polyparasitism was observed.

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\* This plant is apparently not the only food-plant of this bug, as I found it also in a large number on the foliage of *Samanea saman* (Jacq.) Merr. on March 11, 1938 at Garapan, Saipan.