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Title	Notes on some Micronesian Elasmidae and Eucharidae (Hymenoptera, Chalcidoidea)
Author(s)	Yasumatsu, Keizo
Citation	Insecta matsumurana, 16(3-4), 151-158
Issue Date	1942-12
Doc URL	https://hdl.handle.net/2115/9493
Type	departmental bulletin paper
File Information	16(3-4)_p151-158.pdf

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NOTES ON SOME MICRONESIAN *ELASMIDAE* AND *EUCHARIDAE* (*HYMENOPTERA, CHALCIDOIDEA*)*

By

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(With three Text-figures)

Not a single representative of the interesting families *Elasmidae* and *Eucharidae* had been reported from Micronesia until FULLAWAY recorded *Elasmus philippinensis* ASHMEAD (*Elasmidae*) and a new species *Chalcura upeensis* FULLAWAY (*Eucharidae*) from Guam in 1913. During his expeditions to Micronesia, 1936–1938, Professor ESAKI succeeded in securing further materials of the Family *Eucharidae* in different localities and handed over to Dr. ISHII for identification. Thus *Schizaspidia ponapensis* and *S. palauensis* were described as new by ISHII in 1941 from the Caroline and Palau Islands respectively, and at the same time the author recorded *Chalcura upeensis* FULLAWAY from Rota, Yap and Ponape Island. In the same year ISHII and NAGASAWA described another new Eucharid, *Psilogaster nishidai*, from the Palau Islands. Consequently the species of the Micronesian *Eucharidae* has increased to four in number. In 1940 Mr. YOSHIMURA and myself made a collecting trip to Micronesia and secured a small number of specimens of *Elasmidae* and *Eucharidae*. After a careful examination of the individuals before me, I have come to the conclusion that the collection contains some noteworthy species, two of which may apparently be regarded as new to science.

My thanks are due to Professor T. ESAKI for his kindness in entrusting this work to me and to Professor L. MASI for his help extended to me in the course of the present study. All the materials are preserved in the collection of the Entomological Laboratory, Kyūsyū Imperial University, Hukuoka.

*Results of Professor T. ESAKI's Micronesia Expeditions 1936–1940, No. 66.

Family *Elasmidae*

1. ***Elasmus philippinensis*** ASHMEAD

1905 ASHMEAD, Proc. U. S. Nat. Mus., xxviii, 138, ♀ (Manila).

1914 FULLAWAY, Proc. Hawaii. Ent. Soc., ii, 287 (Guam).

1925 GAHAN, Phil. Jour. Sci., xxvii, 102 (Manila).

1929 FERRIÈRE, Bull. Ent. Res., xx, 413, 422 (Kuala Lumpur).

Habitat: Marianna Islands—Guam.
Philippine Islands—Manila (Luzon).
Malaya—Kuala Lumpur (Selangor).

Hosts: *Erionota thrax* LINNÉ (*Hesperiidae*) (Gahan, 1925), *Sylepta derogata* FABRICIUS (*Pyralidae*) (FERRIÈRE, 1929), *Lamprosoma diemendalis* GUENÉE (*Pyralidae*) (FERRIÈRE, 1929).

2. ***Elasmus oceanicus*** sp. nov.

♀. Black, with violaceous reflections on head, thorax and on abdomen, more bluish on scutellum. Postscutellum entirely white. Antennae brownish-black, scape brown. Coxae and femora black; the apex of fore coxae and apical half of fore femora as well as all tibiae and tarsi pale yellowish grey; hind coxae above with bluish reflections.

Head almost as broad as thorax, with frontal punctuation well marked; the diameter of a puncture shorter than the distance between two punctures. Antennae not very elongate; scape comparatively long, slightly longer than pedicel and the first flagellar segment taken together; pedicel about twice as long as broad at the apex and very slightly longer than the first flagellar segment; each flagellar segment much longer than broad, second about as long as third and slightly longer than first; club with three segments and about as long as second and third flagellar segments put together. Thorax shagreened, scutellum more finely shagreened than mesonotum. Mesonotum behind broader than its median length (17 : 13), coverd with small black ciliae. Scutellum almost as long as broad, with four ciliae moderately long. Postscutellum short, triangular, covering the base of propodeum, which is smooth and shining. Upper surface of mid-femur shagreened. Hind coxae and femora very finely striate. Hind femora short, about twice as long as broad; ciliae on hind tibiae black, arranged in regular lozenges. Wings hyaline, entirely ciliate, except for a hairless line near the posterior boader of fore wings. Abdomen smooth, narrower than thorax, pointed apically and about as long as head and thorax taken together. Ovipositor a little protruding.

Length: Body ca. 1.8 mm. Fore wing ca. 1.5 mm.

Holotype: 1 ♀, 11. iv. 1940, Olej-Foup, Tol (Suiyō-tō), Truk, Caroline Islands, K. YASUMATSU et S. YOSHIMURA leg.

Paratype: 1 ♀, 9. iv. 1940, Sabote-Epin, Pata (Mokuyō-tō), Truk, YASUMATSU et YOSHIMURA leg.

Habitat: Caroline Islands—Truk.

This species is closely related to *Elasmus hyblaeae* FERRIÈRE, 1929, from Madras, India, but may easily be distinguished from the latter by the structure of the antennal segments.

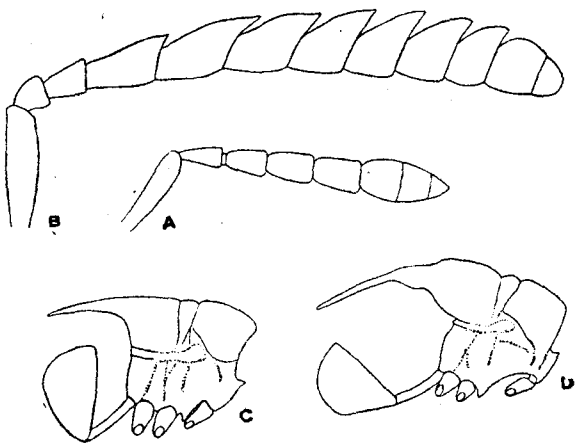

Fig. 1.

A. Antennae of *Elasmus oceanicus* sp. nov., ♀.
B. Antennae of *Schizaspidia ponapensis* ISHII, ♀.
C. Outline of thorax and abdomen of *Schizaspidia palauensis* ISHII, ♂, seen in profile.
D. Outline of thorax and abdomen of *Schizaspidia chamorro* sp. nov., ♂, seen in profile.

Key to the females of the Micronesian species of *Elasmus*.

Antennae with flagellar segments short, not or little longer than broad. Hind coxae black with the yellow tip. Abdomen mostly red .... *Elasmus philippinensis* ASHMEAD

Antennae with flagellar segments elongate, distinctly longer than broad. Hind coxae and abdomen quite black ..... *Elasmus oceanicus* YASUMATSU

Family *Euchalidae*

1. ***Psilogaster nishidai*** ISHII et NAGASAWA

1941 ISHII et NAGASAWA, Tenthredo, iii, 292–294, 1 pl., figs. ♂ ♀ (Palau Islands).

Habitat: Palau Islands—Babeldaob.

2. ***Chalcura upeensis*** FULLAWAY

1913 FULLAWAY, Proc. Hawaii. Ent. Soc., ii, 285–286, ♂ (Guam).

1941 ISHII, Annot. Zool. Jap., xx, 106–107 (Ponape, Yap, Rota).

Further specimens examined: 22 ♂ ♂, 1 ♀, 6. v. 1940, Tapōchō, Saipan, Marianna Islands, YASUMATSU et YOSHIMURA leg.; 1 ♂, 12, v. 1940, Fanagam, Saipan, YASUMATSU et YOSHIMURA leg.; 2 ♂ ♂, 22. et 25. iv. 1940, Soñgsoñg, Pagan, Marianna Islands, YASUMATSU et YOSHIMURA leg.; 2 ♂ ♂, 23. iv. 1940, Soñgsoñg—Regusa, Pagan, YASUMATSU et YOSHIMURA leg.; 7 ♂ ♂, 23. iv. 1940, Laguna, Pagan, YASUMATSU et YOSHIMURA leg.

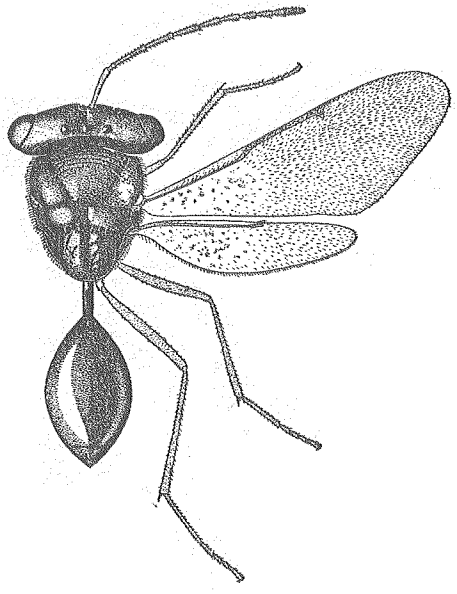

Fig. 2. *Chalcura upeensis* FULLAWAY, ♀.

♂. Relative length of the segments of antenna—III : IV : V : VI : VII : VIII : IX : X : XI : XII=9 : 5 : 4 : 3 : 3 : 3 : 3.5 : 4 : 5.5 : 12.5. Petiole of abdomen slightly shorter than hind femur (38 : 40).

♀. Differs from the male in the following points. Relative length of the segments of antenna—II : III : IV : V : VI : VII : VIII : IX : club=5 : 16 : 12 :

10 : 9 : 9 : 7 : 7 : 13. Pedicel longer than broad, first flagellar segment about 5 times as long as broad, second about 4 times as long as broad, third to fifth each about three times as long as broad. Petiole of abdomen very much shorter than hind femur (27 : 40). Front without longitudinal striae, but with some punctures. Posterior half of mesonotum and entire axillae without any reticulation, and very smooth and polished. Reticulation on scutellum very weak. Propodeum smooth and shining.

Length: Head+thorax ca. 2.0 mm. Fore wing ca. 3.5 mm.

Habitat: Marianna Islands—Pagan, Saipan, Rota, Guam.
Caroline Islands—Ponape, Yap.

This species is new to the fauna of Pagan and Saipan Island.

3. ***Schizaspida palauensis*** ISHII

1941 ISHII, Annot. Zool. Jap., xx, 108, ♂ (Palau).

Further specimens examined: 2 ♂♂, 23. viii. 1940, Airai—Elagi, Babeldaob, Palau Islands, S. NAGASAWA leg.; 1 ♂, 4. iv. 1940, Sabote, Pata (Mokuyō-tō), Truk, Caroline Islands, YASUMATSU et YOSHIMURA leg.; 2 ♂♂, 10. iv. 1940, Sabote—Epin, Pata, YASUMATSU et YOSHIMURA leg.; 1 ♂, 11. iv. 1940, Olej—Foup, Tol (Suiyō-tō), Truk, YASUMATSU et YOSHIMURA leg.

Habitat: Caroline Islands—Truk.
Palau Islands—Peliliou, Babeldaob.

This species is new to the fauna of the Caroline Islands.

4. ***Schizaspidia ponapensis*** ISHII

1941 ISHII, Annot. Zool. Jap., xx, 107-108, ♂ (Ponape).

Further specimens examined: 1 ♀, 30. xii. 1937, Paliker—Kolonia, Ponape, Caroline Islands, T. ESAKI leg.; 1 ♀, 16. i. 1938, Paliker—Kolonia, Ponape, ESAKI leg.

♀. Differs from the male in the following points. Antennae without a ring segment; scape cylindrical, not quite reaching the anterior ocellus; pedicel about as long as broad at the apex; first flagellar segment about twice as long as pedicel or as long as broad at the apex and not prolonged into a tooth dorsally, each of the second to sixth flagellar segments above at apex produced into a strong tooth, each of the seventh and eighth segments broader than long, but its apex not produced into a tooth, ninth and tenth segments fused with each other, tenth one much smaller than ninth.

Length: Head+thorax (as far as the apex of the process of scutellum) ca. 2.8 mm. Fore wing ca. 4.0 mm.

Habitat: Caroline Islands—Ponape.

5. ***Schizaspidia chamorro*** sp. nov.

♂. Bluish-black with violaceous reflections. Abdomen brownish-black. Antennae dark brown; scape and pedicel paler. Legs pale yellowish-brown. Coxae and tegulae pale brown, mid- and hind coxae much darker. Wings transparent, with the outer half very slightly clouded, nervures pale brown.

Head with occiput transversely striated, upper part of front between scrobe and the inner margin of eyes with weak, longitudinal, somewhat irregular striae,

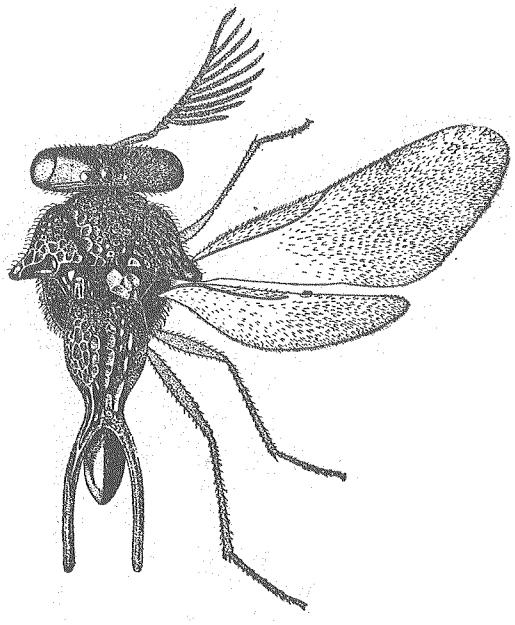

Fig. 3.
Schizaspida chamorro sp. nov., ♂.

lower part of front and malar space irregularly and minutely punctured. Supraclypeal area and clypeus perfectly smooth and polished. Malar space distinctly shorter than eye (13 : 20). Ocelli put on a slightly curved line; postocellar line about as long as oculocellar line. Distance between anterior and posterior ocelli almost as long as a diameter of posterior ocellus. Antennal scape about three times as long as broad at the middle; pedicel slightly broader than long; first flagellar segment with a sharp cone-shaped dorsal tooth, second to ninth segments each with a much longer and distinctly compressed branch, the branch on fifth and sixth segments the longest, tenth segment without a branch and

about as long as the branch on the ninth segment. Mesonotum with complete and widely separated parapsidal grooves, strongly reticulated throughout, the postero-lateral angles of mesonotum strongly produced laterally. Axillae and scutellum strongly reticulated, scutellum with a deep median longitudinal groove and with the forked process of about the same length as scutellum proper and axillae taken together at apex; this process weakly carinated medially and its margin also carinated; underside of this process smooth and shining. Scutellum distinctly constricted at the base. Sides of scutellum somewhat minutely reticulated. Propodeum strongly reticulated. Coxae smooth; femora smooth and all moderately slender. Petiole of abdomen about twice as long as hind coxae, parallel-sided seen from above, shorter than abdomen, slightly carinated longitudinally with sparse punctures.

Length: Head+thorax (as far as the apex of the process of scutellum) ca 4.0 mm. Fore wing ca. 3.0 mm.

Holotype: 1 ♂, 3. v. 1940, Matansha—Calabera, Saipan, Marianna Islands, YASUMATSU et YOSHIMURA leg.

Paratype: 1 ♂, 6. v. 1940, Tapōchō, Saipan, YASUMATSU et YOSHIMURA leg.

Habitat: Marianna Islands—Saipan.

This species is peculiar in having the mesonotum with strongly produced postero-lateral angles. *Schizaspidia yakushimensis* ISHII, 1938, from Yakushima Island is closely related to the present species, but former has the following characters which are not seen in the latter: postero-lateral angles of mesonotum not produced, mesonotum and scutellum more finely reticulated, mesonotum much longer, scutellum not constricted at the base, process of scutellum shorter than the length of scutellum proper, lower half of front entirely smooth and polished, etc.

Key to the females of the Micronesian species of *Schizaspidia*

(The characters such as the sculpture on the scutellum and axillae mentioned in the descriptions of Dr. ISHII differ so little between *ponapensis* and *palauensis* that it is difficult to find distinct specific differences in these characters between them.)

1. Process of scutellum much longer than scutellum proper. Scutellum distinctly constricted at the base seen from above. Front without any distinct longitudinal striae. Body bluish-black ... *Schizaspidia chamorro* YASUMATSU
– Process of scutellum shorter than scutellum proper. Scutellum not constricted basally seen from above. Front with many distinct longitudinal striae. Body bluish with metallic green reflections. Postero-lateral angles

of mesonotum not produced as in *chamorro* 2

2. Body bluish in general, with some metallic green reflections. Antennae brown, scape paler. Smooth and polished area on mesepisterna broad ... . *Schizaspidia ponapensis* ISHII

– Body with strong metallic green reflections. Antennae dark brown, scape brownish. Smooth and polished area on mesepisterna narrow .... *Schizaspidia palauensis* ISHII

A SUPPLEMENTARY NOTE ON THE GENUS *STREBLOCERA* WESTWOOD

(*HYMENOPTERA* : *BRACONIDAE*)

BY

CHIHISA WATANABE

(渡 邊 千 尙)

As a supplement to "A preliminary revision of the genus *Streblocera* WESTWOOD",* there will be given a new locality and a host record of *Streblocera okadai* WATANABE.

Streblocera okadai WATANABE

Streblocera okadai WATANABE, Ins. Mats., XVI, p. 10, ♀ ♂, Fig. 2, B & C (1942).

This species is new to Nippon: I have received a female collected at Hikosan, Kyūsyū, Nippon. It agrees well enough with the type series, except the 1st tergite is fuscous.

Host: *Monolepta nigrobilineata* MOTSCHULSKY (*Coleoptera*: *Chrysomeridae*).

So far as I am aware, nothing is known concerning the host records of the congeneric species. *Monolepta nigrobilineata* is the first specific host record: when I visited the Agricultural Experiment Station of Kōsyurei, Manchoukuo, in the last summer, I had an opportunity to examine two females of this species bred from adults of *Monolepta nigrobilineata*, which is a serious soybean pest in Manchoukuo.

Habitat: Manchoukuo [Kōsyurei (公主嶺), 2 ♀ ♀, 13. VIII, 1939, I. OKADA & I. OIKE leg.]; Nippon [Hikosan (彦山), Kyūsyū, 1 ♀, 28. VII, 1939, K. YASUMATSU leg.].

General Distribution: Manchoukuo; Nippon.

*Ins. Mats., XVI, pp. 1–12 (1942).

[Ins. Mats., Vol. XVI, No. 3 & 4, December, 1942]