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A NEW SPECIES OF *MEGASTIGMUS* FROM JAPAN

(Hym., Chalcidoidea)

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The new species described below has been reared from the seeds of *Picea Glehnii* MASTERS and *P. jezoensis* CARRIÈRE in the course of the junior author's studies on Callimomidae of Japan.

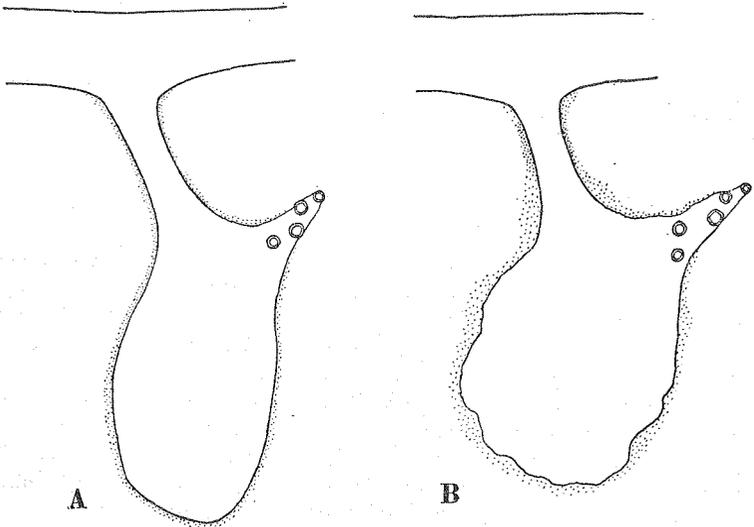
Megastigmus ezomatsuanus sp. n.

Female. Length: body 2.2-2.8 mm., abdomen 1.0-1.6 mm., ovipositor sheath 2.0-2.5 mm.

Head from above $1\frac{2}{3}$ as wide as long. Occipital margin shallowly emarginate. Vertex convex with fine transverse rugulae behind ocelli. Minimum distance between posterior ocellus and occipital carina much less than ocellular line, and a little longer than $\frac{1}{2}$ posterior ocellar line. Length of malar space nearly $\frac{1}{2}$ height of compound eye. Gena and postgena smooth. Antennal scrobe rather shallow, not attaining anterior ocellus. Scape as long as combined lengths of pedicel, ring segment, first funicle segment (FI), and $\frac{1}{2}$ second funicle segment (FII); pedicel $\frac{2}{3}$ as wide as long, and slightly wider and as long as FI; FI nearly twice as long as wide, longer than or nearly as long as FII; following funicular segments nearly equal to FII in length and a little longer than wide. Pronotum $1\frac{1}{2}$ as wide as long, shallowly emarginate on anterior dorsal flange, with sparse transverse ridges or rugae, mostly smooth on posterior margin. Mesoscutum with strongly arched rugae finer than on pronotum becoming somewhat straighter and weaker anteriorly, often with short longitudinal rugae on posterior margin. Parapsides weakly transversely rugulose posteriorly, more finely and irregularly so anteriorly. Axillae with weak, oblique rugulae. Scutellum irregularly shingled; area behind transverse line mostly smooth and shining except shallow punctations along the transverse line. Basal $\frac{1}{3}$ of propodeum, in most specimens, transversely elevated, the strongly arched posterior margin with distinct carina laterally, to which very irregular carinae extend from anterior margin; a few rather sharp carinae extend from posterior margin of propodeum to the elevation at sides; median carina distinct, sometimes branched medially; carination very variable, sometimes weak or rarely absent except

median carina, in such cases propodeum almost entirely reticulate-punctate; groove below propodeal spiracle shallow. Ovipositor sheath as long as thorax and abdomen combined. Proximal $\frac{2}{3}$ of submarginal vein with 10 to 11 bristles. Radius and stigma as in fig. A.

Black and brownish yellow. Occiput, temple posteriorly, vertex, and upper $\frac{1}{3}$ of antennal scrobe black, except eye margin surrounded with brownish yellow; the rest of head light brownish yellow. Scape and pedicel brownish yellow beneath; the rest of antennae dark brown. Thorax black. Pronotum at sides, mesopleura above, often outer surface of parapsides, sometimes metepimera and median piece of metanotum brown to brownish yellow; two transverse spots or



Megastigmus ezomatsuanus sp. n.

A. Stigma of female. B. Stigma of male.

a band on posterior margin of pronotum faint yellow. Front coxa brown to brownish yellow. Middle coxa brownish yellow. Hind coxa black, tinged with dark brownish yellow distally. The remainder of legs brownish yellow except front tarsus and hind femur, at middle, brown. Abdomen black, shining, with sides irregularly dark brown to brownish yellow. Ovipositor sheath black.

Male. Length: body 2.1-2.7 mm.; abdomen 0.9-1.1 mm.

Scape barely longer than pedicel, ring segment, and FI together; pedicel slightly shorter than FI. Sculpture generally similar to female. Proximal $\frac{2}{3}$ of submarginal vein with 11 to 12 bristles. Radius and stigma as in fig. B.

Face and gena yellow. Vertex black. Pronotum at sides and lateral spots

or entire band posteriorly, outer surface of parapsides, mesopleura, and metepimera light brownish yellow. In some specimens inner surface of axillae and anterior sides of scutellum brownish yellow. Legs light brownish yellow except hind coxa dark brown on outer surface. Tergites 1 to 5 black dorsally, the rest brownish yellow.

Holotype (♀), allotype (♂), and paratypes (33 ♀♀, 45 ♂♂), Toikanbetsu, Teshio Prov., Hokkaido, 17.-27. V, 1956, paratypes (3 ♂♂), Ashoro, Hokkaido, 21. V, 1956, reared by K. KAMIJO.

Types are deposited in the Entomological Institute, Hokkaido University and the other 25 paratypes are in the senior author's collection at the British Museum (Natural History), London.

Locality: Japan (Hokkaido).

Hosts: Seeds of *Picea Glehnii* MASTERS and *P. jezoensis* CARRIÈRE.

The infestation of the seeds of these conifers by this species is usually between 2 and 5 per cent. But in 1955 *P. Glehnii* had a poor crop and nearly 65 per cent of the seed crop collected at Toikanbetsu, Hokkaido was destroyed. The following year the crop was average and the infestation decreased to 5 per cent.

This species is closely related to *M. piceae* ROHWER and *M. strobilobius* RATZ. both of which are associated with other members of the genus *Picea*. Its colouration is almost identical with the variety *montana* of *M. piceae* described by MILLIRON. It may be distinguished from these two species as follows:—in *piceae* the pedicel is described as distinctly longer than FI whereas in *strobilobius* and *ezomatsuanus* these segments are equal in length. The shape of the stigma in *ezomatsuanus* is quite distinct to that of *strobilobius* (figured on p. 311 by SEITNER as *abietis*). The median carina on the propodeum is weak and incomplete in *piceae*, distinct but restricted to the anterior portion in *strobilobius*, and complete and well developed in the new species.

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