

# A New Species of the Genus *Misetus* Wesmael from Japan

(Hymenoptera, Ichneumonidae)

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(Received for publication August 30, 1973)

The genus *Misetus* Wesmael belonging to the tribe Alomyini in the subfamily Ichneumoninae has been represented by a single species, *Misets oculatus* Wesmael, from Europe. In the course of the present study has been found a new species of this genus in Japan, which will be described hereinafter. The holotype of the new species is preserved in the collection of the Entomological Institute, Hokkaido University, Sapporo.

I would like to express my sincere thanks to Prof. C. WATANABE of the Hokkaido University for his kind guidance. Grateful acknowledgement is made to Prof. A. NAGATOMI of the Kagoshima University for his constant encouragement and assistance.

## Genus *Misetus* Wesmael

*Misetus* Wesmael, Nouv. mem. acad. sc. Bruxelles 18 : 212, 1844. [Type-species : *Misetus oculatus* Wesmael].

This genus is easily distinguishable from any other genera of the Ichneumoninae by the following combination of characters.

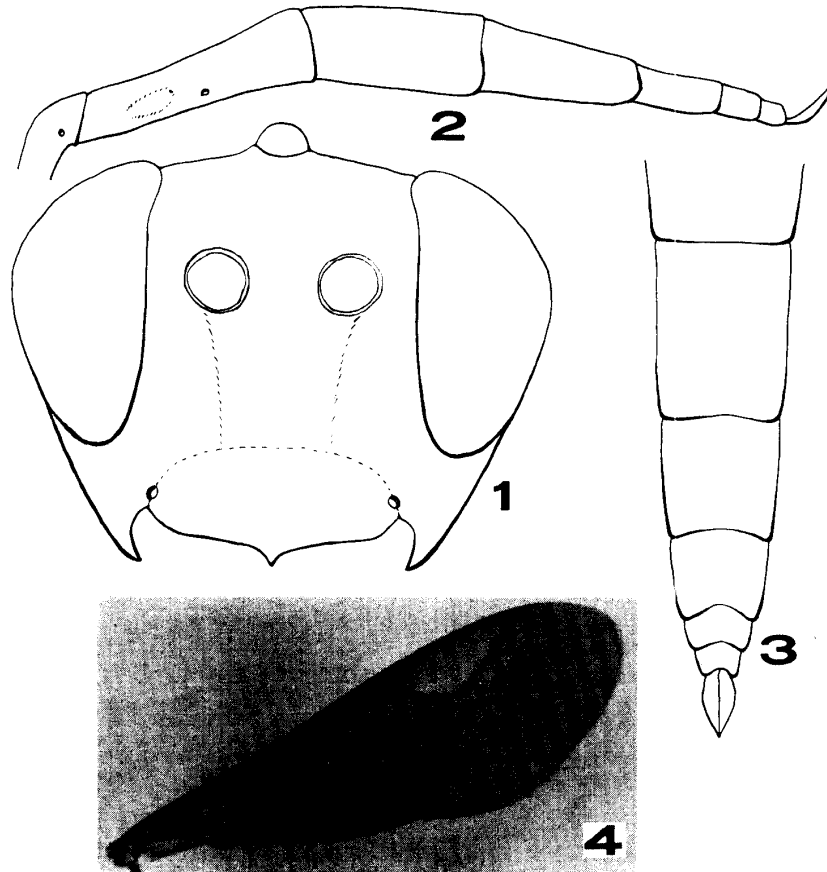
Head with clypeus with a strong, median apical tooth (Fig. 1); occipital carina joining hypostomal carina at base of mandible. Legs with tarsal claws simple. Ovipositor sheath flattened and recurved (Figs. 2 and 3). So far as I am aware, no host record is given in this genus.

### *Misetus borealis* sp. nov.

♀. Head with face about 1.5 times as wide as high, strongly and closely punctured, becoming more finely punctured on malar space and margin of eyes, and strongly convex medially; clypeus faintly convex, polished, with sparsely setiferous punctures, and with a very strong, median apical tooth (Fig. 1); malar space wide, about 8/9 as long as basal width of mandible; mandible polished, with a few punctures, rather slender, 1.9-2.1 times as long as its basal width, the apical lower tooth being very shorter than the upper; temple moderately wide, polished, weakly convex, weakly punctured; occipital carina strong, joining hypostomal carina at base of mandible; frons weakly and evenly convex, strongly and rather densely punctured, the bottom of frons being polished, weakly concave, with a short median groove; distance between posterior ocelli and

eyes 1.0-1.2 times as long as diameter of an ocellus; antennae with 31-33 segments; 1st flagellar segment 2.4-2.6 times as long as wide at apex; 2nd flagellar segment  $\frac{3}{4}$ - $\frac{5}{6}$  as long as the 1st. Pronotum strongly striate mostly, strongly and closely punctured on collar area and upper part; propleuron weakly rugoso-punctured transversely; mesonotum strongly and closely punctured; notauli distinctly impressed; scutellum short, weakly convex, strongly and sparsely punctured, without lateral carinae; mesopleuron strongly and closely striate obliquely; speculum polished and smooth; metapleuron strongly rugose or obliquely striate on posterior  $\frac{2}{3}$ , polished with a few punctures on anterior  $\frac{1}{3}$ , sometimes weakly and obliquely striate wholly; juxtacoxal carina rather strong, extending near posterior margin of metapleuron. Propodeum strongly and loosely rugose; basal area not confined; 1st pleural area confluent with 2nd pleural area; areola confined, 1.1-1.3 times as long as wide at costula; petiolar area strongly and transversely striate, with a broad, shallow and longitudinal furrow. Wings (Fig. 4) with nervulus postfurcal by  $\frac{1}{5}$ - $\frac{1}{3}$  of its own length; nervellus vertical, intercepted near its lower  $\frac{1}{3}$ - $\frac{2}{5}$ . Legs with hind coxa obliquely rugose dorsally except for dorsal furrow which is polished and impunctured, finely and closely punctured beneath; hind femur finely and closely punctured, 3.3-3.6 times as long as wide laterally; tibial spurs of middle leg approximately equal in length; front spur of hind tibia  $\frac{5}{7}$ - $\frac{4}{5}$  as long as hind spur of hind tibia; tarsal claws not pectinate. Abdomen slender, rather strongly tapering towards apex, sometimes the apical two segments being somewhat compressed; 1st tergite with postpetiole strongly and closely punctured; 2nd tergite finely and longitudinally striate anteriorly, finely and rather closely punctured posteriorly, the punctures becoming weaker posteriorly and postero-laterally, 1.5-1.7 times as long as wide at apex, densely haired laterally, with thyridium rather large, separated from base of 2nd tergite by 1.7-2.2 its own diameter, the space between thyridia 1.0-1.2 times as wide as diameter of a thyridium; 3rd tergite alutaceous, with sparse and short hairs wholly,  $\frac{3}{4}$ - $\frac{5}{6}$  as long as 2nd tergite; 4th tergite short, polished, with sparse hairs; 5th tergite polished, sparsely haired; 6th and the following tergites polished, rather densely haired apically; hind edges of 3rd to 7th tergites rather weakly concave (Fig. 3); ovipositor sheath (Figs. 2 and 3) short, wide, 1.5-1.7 times as long as its middle width, recurved and densely haired.

Black. Clypeus dark brown to blackish brown; mandible yellowish brown, blackish on apical teeth, sometimes entirely blackish brown; palpi infusate, a little paler apically; antennae blackish brown, the 5th to 10th segments of flagellum being white except for blackish brown outside. Tegula and subtegular ridge dark brown to black; anterior margin of pronotum, propleuron, mesopleuron, and sometimes mesosternum more or less weakly tinged with dark brown. Front and middle legs with coxae yellowish brown to dark brown, paler apically; trochanters yellowish brown, the 1st segment of trochanters being dark brown except at apex; femora dark brown, pale yellowish brown at both ends; tibiae and tarsi pale yellow to light yellowish brown. Hind leg with coxa blackish brown, paler apically; trochanters and base of femur yellowish brown; femur except at base blackish; tibia blackish brown, darkened apically; tarsus infusate. Abdomen with 1st tergite blackish, weakly tinged with dark brown apically; 2nd to the following tergites blackish brown to yellowish brown, the apical two or three segments light yellowish brown; ovipositor sheath yellowish brown to dark brown.



*Misetus borealis* sp. nov., female.

- Fig. 1, Head in frontal view ;  
 Fig. 2, Abdomen in lateral view ;  
 Fig. 3, 3rd to 7th abdominal tergites in dorsal view ;  
 Fig. 4, Forewing.

Length : Body 7.8-11.0 mm., forewing 4.8-5.6 mm.

♂. Unknown.

Holotype (♀) : Soranuma-dake, Hokkaido, 29-viii-65, K. Kusigemati leg. Paratypes : 1 ♀, Taisetsu-san, Hokkaido, 30-vii-67, K. Kusigemati leg. ; 1 ♀, Tôya, Hokkaido, 9-vii-67, K. Kusigemati leg. ; 1 ♀, Soranuma-dake, Hokkaido, 30-viii-67, K. Kusigemati leg. ; 1 ♀, Hayachine-san, Iwate-ken, Honshu, 30-viii-66, K. Kusigemati leg. ; 1 ♀, Chôkai-san, Miyagi-ken, Honshu, 5-ix-66, K. Kusigemati leg.

Host : Unknown.

Distribution : Japan (Hokkaido and Honshu).

The new species may be distinguished from the European species, *M. oculatus* Wesmael, by the following key :—

1. Abdomen with hind edges of 3rd to 7th tergites not concave. Orbits usually marked with yellow. Scutellum brown, yellow apically. Legs brown, front coxa infuscate

basally. Europe. .... *oculatus* Wesmael.  
 Abdomen with hind edges of 3rd to 7th tergites weakly concave. Orbits and  
 scutellum entirely black. Legs yellowish brown to dark brown. Japan. ....  
 .... *borealis* sp. nov.

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