



Title	A new Species of the genus <i>Epeolus</i> Latreille from Japan (Hymenoptera : Apidae)
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Citation	Insecta matsumurana, 19(1-2), 40-43
Issue Date	1955-06
Doc URL	http://hdl.handle.net/2115/9558
Type	bulletin (article)
File Information	19(1-2)_p40-43.pdf



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A NEW SPECIES OF THE GENUS *EPEOLUS* LATREILLE
FROM JAPAN

(Hymenoptera : Apidae)

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A comprehensive work on the Japanese species of the genus *Epeolus* has been made by Dr. K. YASUMATSU in 1938, and five species, i. e., *E. ventralis* MEADE-WALDO, 1913, *E. tsushimensis* COCKERELL, 1926, *E. japonicus* BISCHOFF, 1930, *E. coreanus* YASUMATSU, 1933 and *E. melectiformis* YASUMATSU, 1938, were recorded at that time. The author collected the sixth species of the genus at Shiiba-Mura, Kyushu, in the fall of 1950, and after his careful examination, it became apparent that it may represent a new species. Its description is given in this paper.

The author wishes to express his sincere appreciation to Professor TEISO ESAKI for the interest he has shown in the course of the present study. Also, the author wishes to extend many thanks to Professor KEIZO YASUMATSU, under whose direction this work was conducted, and for his great amount of advice.

Epeolus himukanus n. sp.

The male of *himukanus* is unique among the known species in lacking the curled hair fringe on the abdominal sternites, however, it has a closer resemblance to the male of *E. melectiformis* YASUMATSU. The male of *himukanus* may be separated from that of *melectiformis* by the following respects.

Head: Clypeus less protruded below; frontal keel lower; facial process between antennal sockets smaller; vertex less convex. Thorax: Pronotum with hair more cream-colored; mesonotum with median stripes of hair more distinct, with larger and coarser punctures; scutellum with shiny impunctate spaces, while in *melectiformis* densely punctured as possible. Abdomen: First tergite with a more conspicuous basal band of felt-like creamy hair, which broadly joins the apical band laterally (as in *ventralis* MEADE-WALDO); tergites covered with sparser and paler hair; pygidial plate nearly parallel-sided with more or less coarser punctures; *sternites without apical fringe of curled hair*; apical depressions of 2nd and 3rd sternites narrower and weaker, lacking dense white hair patches which are conspicuous in *melectiformis*.

Length about 9 mm., fore wing 6.5 mm.

The female is unknown.

Holotype: ♂, Funaishi-Okawachi, Prov. Hyuga, Kyushu, 5. X. 1950 (Y. HIRASHIMA), in the collection of the Entomological Laboratory, Kyushu University.
Distribution: Japan (Kyushu).

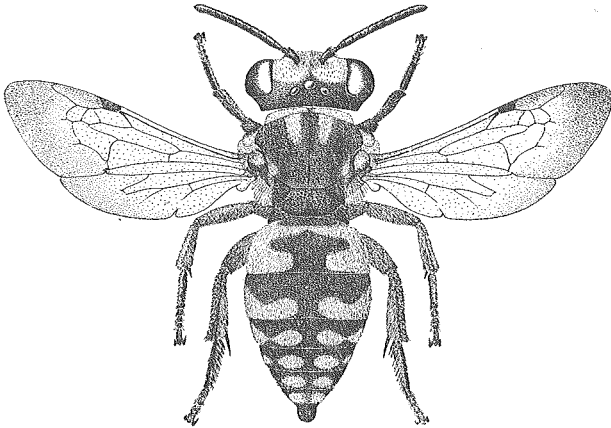


Fig. 1. *Epeolus himukanus* n. sp., male.

The following key may serve to recognize the Japanese species of the genus *Epeolus*.

- 1. First tergite with an interrupted apical band of felt-like hair 2.
- First tergite with an entire apical band of felt-like creamy hair, on three following tergites in the female and on five following tergites in the male also entire creamy hair bands present; labrum with a pair of small teeth (which are close together) subapically; face with a large process between antennae; mesonotum covered with long erect sparse hair, and with a pair of median stripes of sparse creamy hair; scutellum hardly bilobed; legs reddish brown, all tarsi ferruginous; male with curled fringe of pale golden hair on 4th and 5th sternites. 9-10 mm. *coreanus* YASUMATSU, ♂ ♀.
- 2. Mesonotum without marking of appressed hair 3.
- Mesonotum with pale markings of appressed hair 4.
- 3. First tergite without any light hair marking excepting the apical hair band; face densely covered with silver-white hair; mesonotum and scutellum dull, very densely rugoso-punctate, the latter very coarsely sculptured, obtusely bilobed; three basal tergites with felt-like white (slightly creamy) interrupted hair bands, broad at sides and narrowing to a point mesad; two basal tergites shining and well punctured, following tergites duller and more closely punctured. 9 mm. (after COCKERELL) *tsushimensis* COCKERELL, ♂.
- First tergite with a pair of faint white hair patches at the basal declivity;

apical band of 1st tergite broadly, that of 2nd narrowly interrupted, tapering to a point mesad, bands of following entire in both sexes (band of 3rd rarely interrupted in the male); labrum with a pair of small and close denticles subapically; frontal keel prominent, facial process rather small, weakly convex laterally; hair marking on pronotum creamy, conspicuous; two basal tergites shiny, rather sparsely but strongly punctured, the other duller with closer and smaller punctures. 9-10 mm.

- *japonicus* BISCHOFF, ♂ ♀.
4. Face between antennae with a laterally projecting process, labrum with a pair of small and close denticles subapically, hair bands or patches of tergites creamy 5.
- Face between antennae merely convex (as in most *Nomada*-species), frontal keel distinctly prominent in the female, but less so in the male; labrum with a pair of small, more or less widely separated denticles apically; antennae nearly all black except for 3rd segment beneath which is distinctly reddish; scutellum strongly and broadly depressed in the middle; tergites densely covered with very short black or blackish brown hair and with conspicuous white hair bands or patches; basal band of 1st tergite joining apical ones laterally, the latter interrupted and pointed mesad. 10-11 mm. *ventralis* MEADE-WALDO, ♂ ♀.
5. Facial process large, prominent, remarkably projecting laterally; face thinly covered with short pale hair, but a conspicuous white ring of appressed hair present along the margin of antennal insertions in the female; median stripes of hair on mesonotum short and obscure, white in the male, creamy in the female; tergites densely covered with black or blackish brown hair; 1st tergite with a basal hair band; apices of 1st and 2nd tergites with broadly interrupted hair bands, band of 2nd constricted and intermixed with fuscous hair in the female; 3rd and 4th tergites each with two pairs of round hair patches, the inner pair larger; male having large conspicuous white hair patches on 2nd and 3rd sternites, and having curled fringes of fuscous hair on 4th and 5th sternites. 7.5-8.5 mm.
- *melectiformis* YASUMATSU, ♂ ♀.
- Facial process small, slightly projecting laterally; face densely covered with silvery white hair; mesonotum thinly covered with short pale hair and with a pair of median stripes of creamy white hair; 1st tergite with basal hair band constricted medially, and with a large apical hair band broadly interrupted, the basal band joining apical ones laterally; 2nd tergite with an interrupted apical hair band; 3rd and 4th tergites each with two pairs of somewhat round hair patches, the inner pair larger and faintly joining outer ones; 5th and 6th tergites each with a pair of hair patches; pygidial plate nearly parallel-sided, rounded at apex; 4th to 6th sternites with dense reddish hair, without curled hair fringe. 9 mm.
- *himukanus* n. sp. ♂.

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