

A New Species of the Genus *Methocha* Latreille from Japan (Hymenoptera: Thynnidae)

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Abstract: A new species of the genus *Methocha* is described from Japan: *Methocha michinoku* sp. nov.

Key words: Hymenoptera, Methochinae, *Methocha*, Japan

The genus *Methocha* Latreille, 1804 of the subfamily Methochinae comprises 71 species and distributed in the world excepting the Australian and Antarctic regions (Agnoli, 2005, 2011; Guichard, 1971; Lin, 1966; Krombein, 1979, 1982; Kimsey, 2011; Terayama & Mita, 2015). In Japan, 5 species have been known up to the present (Iwata, 1936; Yasumatsu, 1931, 1933; Terayama & Mita, 2015).

Recently, I have examined remarkable specimen of this genus which have a large fovea on the mesopleuron. After careful examination, I have concluded that this is new to science and describe herein.

The recent molecular phylogenetic study suggests that Methochinae should be members of the family Thynnidae in the superfamily Thynnoidea (Pilgrim *et al.*, 2008; Debevec *et al.*, 2012). In this paper, I tentatively follow the taxonomic view.

The following abbreviations are used in the description: HL-head length; HW-head width; WF-width of frons; FWL-forewing length; TL-total body length; EL-eye length; POL-distance between posterior ocelli; AOL-distance between the anterior ocellus and a posterior ocellus; OOL-distance from a posterior ocellus to nearest eye margin; WOT-distance across and including posterior ocelli.

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Taxonomic Accounts

Subfamily Methochinae

The subfamily contain two genera, *Mathocha* Latreille, 1804 (nec *Methoca* Latreille, 1805, unjustified emendation), and *Karlissa* Krombein, 1979, which includes single species from Sri Lanka. Among the 72 species of *Methocha*, 32 species has been known from the Oriental region and 6 from the Palaearctic region (Agnoli, 2014; Krombein, 1979, 1982; Lin, 1966; Pagden, 1949; Tsuneki, 1986; Terayama & Mita, 2015).

Methocha michinoku sp. nov.

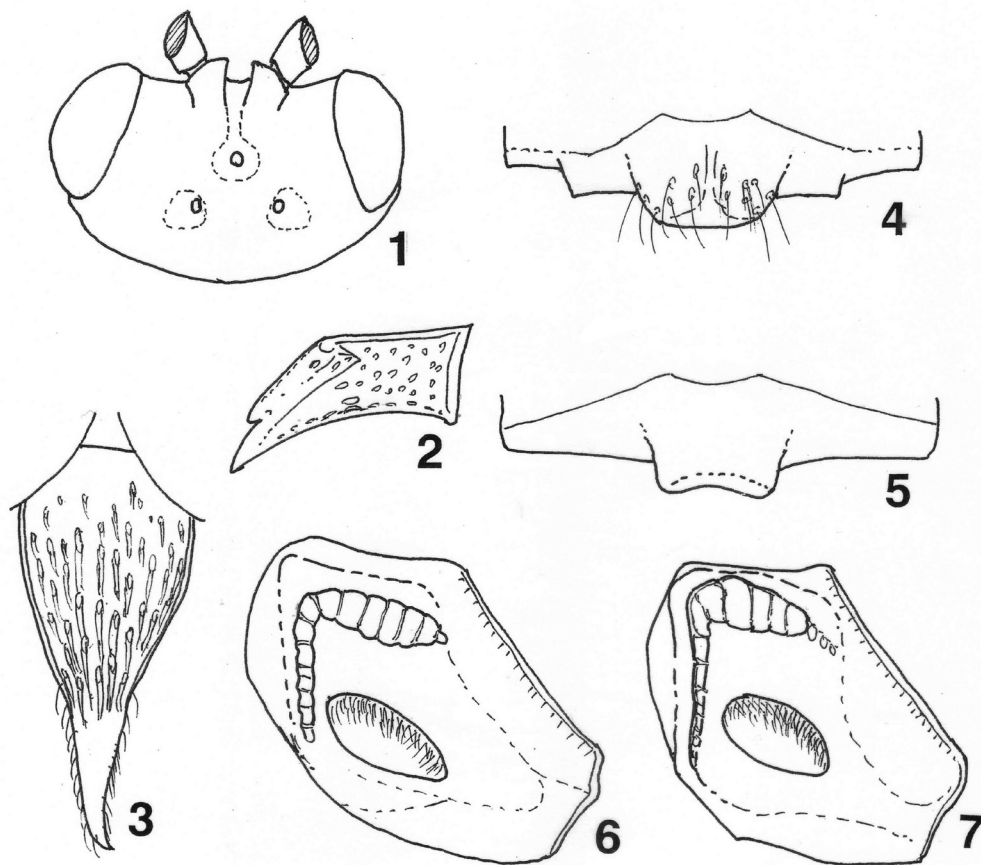
[Japanese name: Michinoku-tsuya-aribachi]

(Figs. 1–4, 6, 8, 9)

Diagnosis. Among the Asian congeners, this species is in male especially resembles *M. uchinanensis* Terayama & Mita, 2015 from the Ryukyu Islands, southeastern Japan in the mesopleuron with a large fovea and the clypeus without distal tubercle. However it is easily separated from the latter by the clypeus with a broadly convex median lobe at anterior margin and the angulate lateral margins, and much densely punctuated frons and vertex of head.

Description. *Holotype.* Male. **Structure:** Head including eyes, 0.67 times as long as wide, with convex posterior margin in full-face view; posterolateral corner round, not forming angle; frons and vertex densely punctate; punctures ca. 0.02–0.03 mm in diameters; the punctures separated by 0.5–0.8 times their own diameters; interspaces smooth and shining. Mandible gently narrowed to apices, with almost straight upper margin, with 2 teeth apically; basal half of outer surface rugose, apical half smooth and shining. Clypeus with shallow longitudinal furrow at midlength, without discal tubercle; anterior margin with a broadly convex median lobe, and raised towards apex; lateral margin with an angle. Antenna long; first 5 antennomeres in a ratio of 13 : 4 : 9 : 11 : 11 in length; scape flat and half circular, 1.4 times as long as maximum width; pedicel shorter than width; 3rd antennomere 1.6 times as long as wide; 4th and 5th antennomeres each 1.9 times as long as wide, 6th to 12th antennomeres each longer than wide; 13th (terminal) antennomere 3.6 times as long as wide, with acute tip. Eye large and convex, with many long erect hairs; the hairs ca. 0.07–0.09 mm long; WF 1.08 times EL. Head from above half circular, with ratio of width to length 25 : 39, with almost straight anterior margin and convex posterior margin; posterolateral corner convex, not forming angle. Vertex largely smooth, scattered with shallow small punctures. Ocelli forming obtuse triangle; POL : AOL = 2 : 1 ; OOL as long as WOT;

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Figs. 1–7. *Methocha michinoku* sp. nov., male, holotype (1–4, 6), and *M. uchinanensis* Terayama & Mita, 2015, male (5, 7): 1, head, dorsal view; 2, left mandible, lateral view; 3, hypopygium, ventral view; 4, 5, clypeus, full-face view; 6, 7, mesopleura, lateral view.



Figs. 8, 9. *Methocha michinoku* sp. nov., holotype (male): 8, body, dorsal view; 9, ditto, lateral view.

anterior ocellus ca. 0.12 mm in diameter.

Mesonotum with convex dorsum, sloping from anterior margin of pronotum to posterior margin of propodeum; pronotal disc trapezoidal, wider than long, 0.34 times as long as wide, with straight anterior margin and weakly convex sides, and concave posterior margin in dorsal view; anterolateral corner forming distinct angle; anterior margin carinate; disc anteriorly with transverse striae, posterior portion subopaque with sparsely shallow punctures. Mesoscutum moderately punctate; scutellum with shallow punctures; large rectangular scutellar pit present at anterior margin, ca. 0.58 mm in length, with 5 longitudinal septums in the pit. Mesopleuron scattered with shallow punctures, with a smaller fovea at upper portion and a large oval fovea at lower portion; the fovea 0.50 mm in the longest axis and 0.33 mm in the shortest axis, with many pubescences at upper portion. Propodeal dorsum convex in profile, posterodorsal margin not forming distinct angle; lateral surface coarsely reticulate; in dorsal view, propodeum half circular, 0.42 times as long as wide, posterolateral corner not forming angle, surface coarsely reticulate, with a median carina, without median longitudinal furrow; anterior border depressed.

Metasoma slender, 5.3 mm in length; 3rd tergum 1.23 mm

in maximum length in dorsal view; 1st to 6th terga smooth and shining; 7th tergum triangular, 1.29 times as long as wide, with small shallow punctures: 2nd to 6th sternum each with densely punctate anterior half and smooth posterior half, medially depressed; hypopygium round and flat, without depression, with punctures and longitudinal rugae.

Color. Body black; mandible black excepting brownish apices; antenna and legs black; wings subhyaline, even brownish; pterostigma and wing veins blackish brown.

Measurements (mm). HL 1.25, HW 2.03, WF 1.00, EL 0.93, FWL 6.2, TL 10.5.

Holotype. Male, Minamigamo Beach, Sendai-shi, Miyagi Pref., 18. Vi. 2016, K. Goukon leg.

Type depository. National Agriculture and Food Research Organization (NARO), Tsukuba, Japan.

Etymology. The specific epithet is based on the name of type locality, Michinoku (Old name of Miyagi Prefecture).

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