NOTES ON BRACONIDAE OF JAPAN

II. MACROCENTRINI

By

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(With 2 Textfigures)

This group has been treated as a subfamily of Braconidae by most of the senior authors as FORSTER, MARSHALL, Szépligeti, and ASHMEAD, being divided by the latter into two tribes as Macrocenrtini and Zelini, but it has been placed by HANDLIRSCH in his subfamily Helconiae as a tribe, Macrocenrtini. Our few species from Japan may, for convenience, be treated under the HANDLIRSCH's tribe.

The life-histories of the species belonging to this tribe, as far as my studies are concerned, show that they attack the various lepidopterous larvae.

Three genera, containing four species, have been recorded from this country: in 1906, ASHMEAD described for the first time a species, Macrocenurus gifuensis ASHMEAD, but, as far as my studies go, it may be a form of Macrocenurus abdominalis F.; in 1929, FAHRINGER gave Japan as a locality of Macrocenurus pallidipes NEES, but it may also be placed in another form of Macrocenurus abdominalis F.; in 1931, MATSUMURA recorded two species, Zele testacea CURT. and Cerotopia coreimacula ENDERL., the latter being found in Sumatra and the former in Europe.

I have treated in this paper the following two new species, four unrecorded species and one new form; thus it has been to us in all eight species and three forms as existing in Japan.

8): MATSUMURA-6000 Illustrated Insects of Japan-Empire (1931).

[Ins. Mats. Vol. VI, No. 3, February 1932]
1. *Macrocentrus marginator* Nees
2. *M. abdominalis* Fabricius
3. *M. infirmus* Nees
4. *M. japonicus* Watanabe (nov. sp.)
5. *Zele testaceator* Curt. f. *japonica* Watanabe (nov. f.)
6. *Z. discolor* Wesmael
7. *Z. simplex* Watanabe (nov. sp.)

I must express here in this occasion my sincere thanks to Prof. S. Matsumura for his kind advice, and the other entomologists who have presented me with the valuable specimens my hearty gratitude.

**Key to the Genera**

1. Occiput not margined; spurs of the hind tibiae shorter than half the length of metatarsi; 1st abdominal segment not or scarcely longer than the 2nd; terebra straight, at least longer than the abdomen...
   - Occiput margined; spurs of the hind tibiae longer than half the length of metatarsi; 1st abdominal segment much longer than the 2nd; terebra falcate, much shorter than the abdomen...
   2. Occiput margined at each side; 2nd cubital cell large, trapezoidal; 2nd cubitus as long as 3 times of the 2nd transverse cubital nervure; 1st discoidal cell petiolate; spiracles of the 1st abdominal tergite situated at one-third from the base...
   - Occiput entirely margined; 2nd cubital cell small, transverse, slightly narrowed outwardly; 2nd cubitus somewhat longer than the 2nd transverse cubital nervure; 1st discoidal cell sessile; spiracles of the 1st abdominal tergite situated quite close to the base...

**Genus *Macrocentrus* Curtis**


Type—*Macrocentrus thoracicus* Nees

**Key to the Species**

1. Antennae more than 40 jointed; maxillary palpi elongated, the 3rd joint as long as the 1st of flagellum or longer...
   - Antennae 31 jointed; maxillary palpi short, the 3rd joint shorter than the 1st of the flagellum; 2nd abscissa of the radius as long as the 1st transverse cubital nervure... "infirmus" Nees
2. 3rd abdominal tergite (like the 2 preceding) entirely striated, smaller species...
   - 3rd abdominal tergite striated at the base only, larger species...
   - Abdomen yellow with some black markings, the 1st tergite transversely striated...
3. Abdomen entirely black, the 1st tergite longitudinally striated...
   - Abdomen marginator Nees
1. **Macrocentrus marginator** Nees


This is the first record to the *Braconid-fauna* of Japan.

_Hab._—Saghalien (Ikusagawa, 2 ♀, 25/VII. 1924; Kawakami, 1 ♀, 30/VII. 1924, Dr. S. Matsumura)—Kurile (Yetorup, 1 ♀, 20/VII. 1927, K. Dot)—Hokkaido (Sapporo, 1 ♀, 24/VII. 1927, Dr. S. Matsumura; 1 ♀, 4/VIII. 1915, S. Kuwayama; 2 ♀, 10/VIII. 1928, Dr. T. Uchida; 1 ♀, 8/VIII. 1931, K. Igarashi; 1 ♀, 23/VIII. 1931, the author: Teshio, 1 ♀, 13/VII. 1927, Dr. S. Matsumura: Mt. Daisetsu, I ♀, 28/VII. 1930, S. Kato: Jozankei, 1 ♀, 4/IX. 1931, Y. Ohta)—Honshu (Shizuoka, 1 ♀, 24/VII. 1928, the author)—Korea (Sanbo 6 ♀, 29/VII. 1922, T. Uchida and S. Takano).

_Distr._—Europe, Siberia (Kamchatka), Japan, Korea.

_J. N.:_ Kuro-higenagakomayu.

2a. **Macrocentrus abdominalis** Fabricius

**Ichneumon abdominalis** Fabricius, Entom. system. II, p. 183 (1793).


_Macrocentrus abdominalis_ Haliday, Entom. Magaz. I, p. 269 (1833); Wolffenhoven, Pinacogr. p. 53, T. 34, Fig. 4, fig. 1 (1878); _Thomson, Opusc. entom. p. 2112 (1895).

Though it is the commonest species in this genus, being very variable in colouration, yet the typical specimen has hitherto not been found from Japan.

_Hab._—Honshu (Shizuoka, 7 ♀, 24/VII. 1928, the author; Wakayama, 1 ♀, 1927, F. Wada).

_Distr._—Europe, Japan.

_J. N.:_ Higenagakomayu.

2a. **Macrocentrus abdominalis** Fabricius f. _gifuensis_ Ashmead

This form may be easily distinguished from the typical specimen by the black head.

According to S. Nakayama it was bred from the larva of a Pyralid-moth, *Pyrausta nubilalis* Hübn., at Suigen in Korea, on July, 1928. It was also bred from the larvae of the same species and of some other microlepidopterous species which were feeding on the leaves of soy-bean at Nagano Agricultural Experiment Station, on August, 1921.

Hab.—Honshu (Gifu, after Ashmead; Nigata 3 ♀ ♀, 4 ♂ ♀, 29/V. 1917; Ishikawa; Nagano 13 ♀ ♀, 3 ♂ ♂, 16/VIII. 1921).—Korea (Suigen, after Nakayama).

Host.—*Pyrausta nubilalis* Hübn.

Distr.—Japan, Korea.

2b. *Macrocentrus abdominalis* Fabricius f. *pallidipes* Nees


*Macrocentrus pallipes* Vollenhoven, Fiscogr. p. 53, T. 34, Fig. 5 ♀ (1878).


This form so differs in colouration from the typical specimen that some authors treat it as another species.

It was bred from the larva of a Tortricid-moth, *Cacoecia longicellata* Wals. on the 10th of July, 1917, and 24 female specimens emerged from a single larva of *Pandemis heparana* Schiff. on the 17th of July, 1930, at our College insectarium.

Hab.—Hokkaido (Sapporo 4 ♀ ♀, 10/VII. 1917, Dr. S. Matsumura; 24 ♀ ♀, 17/VII. 1930, the author).

Host.—*Cacoecia longicellata* Wals.; *Pandemis heparana* Schiff.

Distr.—Europe, Siberia, Japan.

3. *Macrocentrus infirmus* Nees


This is the first record to the *Braconid*-fauna of Japan; in 1930, 3 female specimens were collected in Sakhalien by the author.
Hab.—Saghalien (Konuma, 1 ♀, 1/VII. 1930; Suzuya-dake, 1 ♀, 11/VII. 1930; Todoroki-tōge, 1 ♀, 13/VII. 1930, the author).

Distr.—Europe, Japan.

J. N.: *Hime-kuro-higenagakomayu*.

4. **Macrocenturus japonicus** nov. sp.

♀. Head black; mandibles and palpi yellow; antennae dark brown, except the first two joints and a broad ring at the middle of the flagellum, which are yellow. Thorax yellow, with some black markings at the meso- and metanotum, sometimes scarcely black, the colour being variable. Legs yellow; hind femora and tibiae brown, except the bases, which are pale. Wings hyaline, stigma and veins brown, the former with a pale spot at the base. Abdominal segments 1–3 yellow with a fuscous marking at each apical margin, and the following segments usually black.

Head transverse, finely punctured; antennae longer than the body (broken at the apex beyond the 40th joint). Thorax closely punctured; mesonotum slightly depressed posteriorly, with a median longitudinal carina; metanotum punctured, being much closer than at the others, with a longitudinal carina at each lateral margin. Second cubital cell narrowed outwardly; 1st cubitus bent at the middle; nervulus postfurcal; radial cell of the hind wings sessile, coarctate owing to a sinus of the cubital nervure. Legs long and slender. Abdomen longer than the head and thorax together; 1st tergite transversely striated, with two fine longitudinal carinae at the base; 2nd and the base of 3rd longitudinally striated, the rest smooth and shining. Terebra as long as the body.

Length. 12–8 mm.

♀. Much resembles the female, but differs from it in having the antennae longer and slenderer, 45 jointed.

Hab.—Honshu (Shizuoka, 1 ♀, 2/X. 1930, the author; Tokyo, 1 ♂, 24/VII. 1924, M. YAMANAKA).—Shikoku (Matsuyama, 1 ♀, 20/VII. 1916; Kōchi, 1 ♀, 20/VI. 1930, SUGIHARA).—Formosa (Horisha, 1 ♀, 21/XII. 1916, ASAKURA: Ranrun, 1 ♂, 8/VII. 1915, T. UCHIDA, H. KÔNO, Y. MIWA; Taihoku, 1 ♀, 7/VII. 1911, H. SAUTER).

J. N.: *Kimadara-higenagakomayu*.

Closely allied to *Macrocentrus marginator* NEES, but differs from the latter in having the abdomen yellow with some black markings, the 1st tergite transversely striated, and the 1st cubitus of fore wings bent at the middle.

**Genus Cerotopia** Enderlein

*Cerotopia* Enderlein, Archiv für Naturg. S4 A, p. 219 (1920)
Type—Cerotopia corneimacula ENDERLEIN.

5. Cerotopia corneimacula ENDERLEIN

Cerotopia corneimacula ENDERLEIN, Arch. für Naturg. 84 A, p. 220 (1920); Matsu-
Mura, 6000 Ill. Insects Japan-Empire p. 73, Fig. 401 (1931).

As a supplement to ENDERLEIN's original description, the following points may be added:

♀ Antennae long and slender, about 55 jointed; spurs of the hind tibiae somewhat shorter than the metatarsi. Abdomen twice longer than the head and thorax taken together, yellow, sometimes tinged with black at the apex; 1st segment longer than the following two, finely punctured at the basal half, with two circular spiracles which are situated at one-third from the base; 2nd tergite laterally margined, as long as the 3rd; segments 4–5 much compressed, which are equal in length; 6th a little shorter than the 5th; the following two segments much shorter. Terebra somewhat longer than the
hind tibial spurs, with short flattened sheaths.

Length. 18 mm.

♂ Unknown.

Hab.—Honshu (Wakayama, 1 ♀, VIII. 1928, F. WADA; Miye, 1 ♀, non-
data, Tanaka; Mt. Wakasugi, 1 ♀, 12/VIII. 1927, K. Yasumatsu).—Korea (Shakoji, 1 ♀, 2/VII. 1922, T. Uchida, S. Takano).—Formosa (Baibara, 1 ♀, VII. 1925, Dr. S. Matsumura).

Distr.—Sumatra, Formosa, Korea, Japan.

J. N. : Ō-amido-konbōkomayu.

Genus Zele CURTIS


Phylacte\textperpento THOMSON, Opusc. entom. p. 2207 (1895).

Type.—Zele testaceator CURTIS

Key to the Species

1. Radial cell of the hind wings geminated by a transverse nervure; body-colour black
2. Radial cell of the hind wings not geminated; body-colour reddish yellow
3. Radial cell of the hind wings sessile, coarctate owing to a sinus of the cubital nervure
4. Radial cell of the hind wings petiolate, widened towards the apex; cubial nervure not sinuated at the middle

5. Zele testaceator CURTIS

6. Zele testaceator CURTIS

6a. Zele testaceator CURTIS f. japonica nov. f.

7. Zele simplex nov. sp.
yellow; mandibles at the tips black; stemmaticum and eyes blackish. Wings hylaine, stigma yellow, veins darkish.

Head transverse, as broad as the thorax; 3rd joint of the labial palp very short and slender, 4th longest, inserted at the middle of the 3rd. Thorax smooth and shining, clothed with yellowish pubescence; metanotum distinctly areated, the middle area lanceolate, with a transverse carina in it; metapleural tooth stronger. Nervulus interstitial; radial cell of the hind wings petiolate, widened towards the apex; cubital nervure not situated at the middle. Spurs of the hind tibiae somewhat longer than the metatarsi. Abdomen clavate, shorter and less compressed than that of the preceding; Terebra shorter, as long as the hind tibial spurs.

Length. 10 mm.

♂. Unknown.

Hab.—Hokkaido (Józankei, 1 ♀, 15/VIII. 1925, Dr. T. UCHIDA).


This is easily distinguished from the preceding by the radial cell of hind wings, which is petiolated.

8. Zele discolor Wesmeal


Homolobus discolor FÖRSTER, Verh. naturh. Ver. preuss. Rheinl. XIX, p. 256 (1862); VOLLEROYEN, Pinacogr. p. 53, T. 34, Fig. 7, 9 (1878); SzéPLIGETI, Gen. Insect. 22–24, p. 148 (1904).

Zele discolor MARSHALL, Trans. Entom. Soc. London p. 200, 9 (1889); id, Spec. Hymen. Europe V, p. 246 9 (1894); MORLEY, Entomologist p. 254 (1907); LYNE, Entomologist p. 296, 9 Pl. VI, Fig. 3, 9 (1914).

This is the first record to the Braconid-fauna of Japan.

Hab.—Honshu (Chuzenji, 1 ♀, 7/VIII. 1915, E. GALLOIS; Mt. Hira, 1 ♀, 18/VI. 1929, C. TERANISHI).

Distr.—Europe, Japan.

J. N.: Kuro-kobōkōmayu.
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要
著者が本文に掲げた八種の本邦産 Macrocentrini に関する小腸蜂の学名、和名、分布は次の如し。

学名及び和名
1. Macrocenetrus marginitator Nees
クロヒゲナガコマユ（新緑）
2. M. abdominalis F.
ヒグナガコマユ（改緑）
a) f. gifuensis Ashmead
b) f. pallidipes Nees
3. M. infirrns Nees
ヒメクロヒゲナガコマユ（新緑）
4. M. japonicus Watanabe (nov. sp.)
キマダラヒゲナガコマユ（改緑）
5. Ceratopia cornimaculata Endeelein
オホアメイロコンポウコマユ（改緑）
6. Zeo tettocector Curtis
アメイロコンポウコマユ（改緑）
a) f. japonica Watanabe (nov. f.)
7. Z. simplex Watanabe (nov. sp.)
エゾアメイロコンポウコマユ（新緑）
8. Z. discolor Wesmael
クロコンポウコマユ（新緑）

分布
1. 朝鮮、本州、北海道、樺太、千島
シベリヤ、ヨーロッパ
2. 本州、ヨーロッパ
a) 本州、朝鮮
b) 北海道、シベリヤ、ヨーロッパ
3. 樺太、ヨーロッパ
4. 本州、四国、台湾
5. 本州、台湾、朝鮮、スマトラ
6. 北海道、本州、ヨーロッパ
a) 本州
7. 北海道
8. 本州、ヨーロッパ