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HYMENOPTEROUS PARASITES OF THE LONGICORN
BEETLE, *SEMANOTUS RUFIPENNIS* MOTSCHULSKY

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The material on which the present paper is chiefly based was reared by Mr. MASASUKE YOGO who has conducted studies on *Semanotus rufipennis* MOTSCHULSKY, a longicorn beetle injurious to the Japanese cedar, *Cryptomeria japonica* D. DON, at the Kamabuchi Branch of the National Forest Experiment Station. There are four species of Braconidae and one species of Ichneumonidae before me, among which two Braconids are new to science. All the types dealt with in this paper are deposited in the Entomological Institute, Hokkaido University, Sapporo.

Family **Braconidae**
Subfamily **Braconinae**

Atanycolus initiator (FABRICIUS)

Ichneumon initiator FABRICIUS, Entom. System. 2: 161, 1793.

Atanycolus initiator WATANABE, Ins. Mats. 18: 25, 1952.

Specimens examined: 1♀ & 1♂ (vi-52), and 1♀ (9-vi-52), Kamabuchi, Yamagata-ken, bred from larvae of *Semanotus rufipennis*, M. YOGO leg.

Host: *Semanotus rufipennis* MOTSCHULSKY.

The host-relationship has been already informed in my paper (1952) listed above.

Subfamily **Spathiinae**

Spathius sp.

Specimens examined: 1♂ (9-vi-52) & 1♂ (23-v-52), Kamabuchi,

bred from larvae of *Semanotus rufipennis*, M. YOGO legs.

Host : *Semanotus rufipennis* MOTSCHULSKY.

I have some hesitation in determining the species definitely, since I have been able to examine merely two male specimens which are in bad condition.

Subfamily **Doryctinae**

Doryctes yogoi sp. nov.

♀. Dark-brown to black; antennae brownish, darkened toward the apex; fore legs brownish; middle and hind legs darker; hind tibiae pale at the extreme base; pronotum at the anterior margin and tergite (2+3) somewhat brownish. Wings slightly smoky; stigma dark-brown throughout.

Head transverse, only very slightly narrower behind the eyes than across them; vertex smooth and shining; face almost smooth with long hairs. Antennae 46-jointed; 1st joint of flagellum slightly longer than the 2nd. Thorax of narrow build; pronotum elongate, rugose; mesonotum sloping gradually to pronotum, not raised high above the level of pronotum; lobes almost smooth and shining with long hairs; parapsidal furrows broad and rugose; mesopleurae smooth and shining except for the rugose area just below the tegulae; mesopleural furrows smooth and shining; metapleurae closely rugose. Propodeum completely areolated, the basal two areae being large, almost smooth with some rugosities, and the other areae rugose within. Legs slender; hind coxae rugose on the outer surface, with long hairs; hairs on the hind tibiae very short, not erect; 1st joint of the hind tarsus about 2.5 times as long as the 2nd; 3rd joint slightly longer than the 1st. Wings of normal form for the genus; nervulus postfurcal; median cell of the hind wing gradually widened to the apex; 1st abscissa of the medius as long as the 2nd. Abdomen narrow, about 2.5 times as its greatest width; 1st tergite slightly longer than its apical width, longitudinally striate, the striation being somewhat irregular. Tergite (2+3) or the fused 2nd and 3rd tergites as long as wide, longitudinally striate from the base to the apical fourth, the remaining part smooth and shining, the

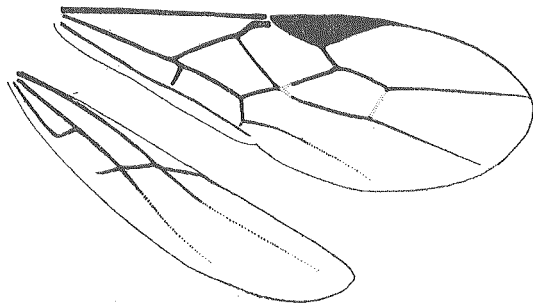


Fig. 1. Wings of *Doryctes yogoi* sp. nov. (♀)
striation weaker than in the 1st tergite; suture feebly impressed and sinuate toward the

apex, with the oblong depressions at the basal corners hardly indicated; 4th and following tergites smooth and shining. Ovipositor-sheath about as long as the abdomen.

Length, 6 mm. (without ovipositor).

♂. Closely resembles the female in general structure and colour, but differs from the latter by the following points:—

Antennae 48-jointed (1♂, broken in others); legs lighter in colour than with the female; tergite (2+3) slightly longer than wide, with the oblong depressions at the basal corners absent; suture more definitely impressed and almost straight.

Length, 5.5 mm.

Holotype: 1♀ (12-v-52), Allotype: 1♂ (12-vi-52), and Paratypes: 1♂ (9-vi-52) & 1♂ (12-v-52), Kamabuchi, Yemagata-ken, Japan, bred from larvae of *Semanotus rufipennis*, M. YOGO leg.

Host: *Semanotus rufipennis* MOTSCHULSKY.

In build of thorax, venation, areolation of propodeum and sculpture of abdomen, this species may belong to NIXON's *tristriatus*-¹⁾ group, but it is quite distinct by the short hairs on the hind tibiae from any other member of the species-group I have ever known. I take much pleasure in naming the species after Mr. M. YOGO who collected various interesting parasites of the longicorn beetle.

Subfamily Helconinae

Aspidocolpus seminoti sp. nov.

Helcon (Aspidocolpus) aino WATANABE, Jour. Facul. Agr. Hokkaido Imp. Univ. 42: 154, ♀ ♂. 1937. (Partim).

♀. Black; legs dark-brown; femora at the extreme apex, tibiae and tarsi reddish-brown; antennae brown and darkened toward the apex. Wings slightly smoky; stigma entirely dark-brown.

Head transverse, slightly narrower behind the eyes than across them. Entire surface of the head almost punctate, the punctation on the vertex being weaker than on the face and cheeks; space between the antennal insertions and the ocelli slightly excavated and weakly rugose; clypeus almost smooth with a few scattered punctures, the anterior margin being rounded with a short dentiform projection at the middle. Antennae rather shorter than the body and 37- or 38-jointed; 1st joint of the flagellum slightly longer than the 2nd. Thorax slightly narrower than the head; mesonotum weakly punctate; parapsidal furrows broadly impressed, strongly crenulate and converging on a coarsely reticulate sunken area; mesopleurae punctate as well as the mesonotum; mesopleural furrow broadly impressed and crenulate; metapleurae closely reticulate-rugose. Propodeum

1) Ann. Mag. Nat. Hist. (11), 3: 481—506, 1939.

coarsely reticulate-rugose, not completely areolated. First abscissa of the radius slightly longer than one-third the length of the 2nd, which is little shorter than the 2nd abscissa of the cubitus; anal cell with two indications of transverse nervure; nervulus slightly postfurcal; 1st abscissa of the medius of the hind wing about twice as long as the 2nd. Abdomen as long as the head and thorax taken together; 1st tergite strongly reticulate-rugose, obviously longer than the apical width (5:3), slightly widened toward the apex and about 1.3 times as wide apically as basally; 2nd and following tergites smooth and shining. Ovipositor-sheath about 1.3 times as long as the whole body.

Length, 6-7 mm. (without ovipositor).

♂. Closely resembles the female in general structure and colour, but differs from the latter by the following points:—

Antennae 35-39-jointed; legs brownish and lighter in colour than the female; 2nd tergite finely rugose basally. Length, 6 mm.

Holotype: 1♀ (23-v-52), Kamabuchi, Yamagata-ken, Japan, M. YOGO leg. Allotype: 1♂ (22-iv-52), Kôchi, Shikoku, Japan, Y. SUGIHARA leg. Paratypes: 2 ♀♀ (6- & 13-vi-52), Kamabuchi, YOGO leg.; 8 ♂♂ (22-iv-33), Kôchi, Y. SUGIHARA leg.; 1 ♂ (28-iv-34), Hirooka, Kôchi, Shikoku, Japan, H. OKAMOTO leg.; 1 ♀ (2-vii-30), Kyoto, Japan, T. TAKEUCHI leg.; 1 ♀ (13-iv-29), Kamogawa, Kyoto, Japan, M. YAMANAKA leg.

It should be noted that among the types three females taken

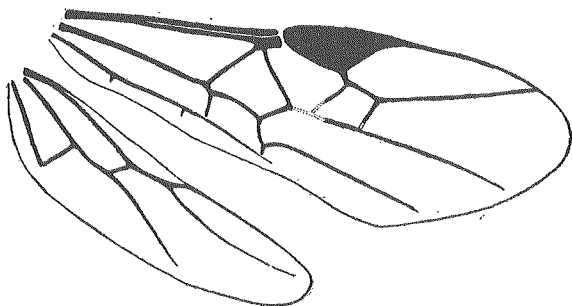


Fig. 2. Wings of *Aspiaocolpus seminoti* sp. nov. (♀),

at Kamabuchi were bred from larva of *Semanotus rufipennis* and the rest were erroneously determined by me as *Helcon* (*Aspidocolpus*) *aino*¹⁾ WATANABE in 1937. Furthermore, as stated in my previous paper²⁾ I prefer to regard *Aspidocolpus* WESMAEL as a distinct genus.

1) Ins. Mats. 6 : 29, ♀, Fig. 3, 1931.

2) Ins. Mats. 18 : 29, 1952.

Host : *Semanotus rufipennis* MOTSCHULSKY.

This species is closely related to *Aspidocolpus aino* (WATANABE), but may be easily distinguishable from the latter by the following key : —

Key to the species

♀ ♀

Clypeus pointed at the middle of the anterior margin, but not forming a dentiform projection; face coarsely rugose; parapsidal furrows deeply impressed, coarsely crenulate, and converging on a smooth sunken area: 1st abscissa of the radius slightly shorter than one-third of the 2nd, which is slightly longer than the 2nd abscissa of the cubitus; 1st tergite slightly longer than the apical width, obviously widened toward the apex and fully twice as wide apically as basally; ovipositor-sheath shorter, and as long as the thorax and abdomen taken together. Length, 8 mm. (without ovipositor).
..... *Aspidocolpus aino* (WATANABE)

Clypeus forming a dentiform projection at the middle of the anterior margin; face closely punctate; parapsidal furrows broadly and shallowly impressed, closely crenulate, and converging on a coarsely reticulate sunken area; 1st abscissa of the radius as long as or slightly longer than the 2nd, which is slightly shorter than the 2nd abscissa of the cubitus; 1st tergite obviously longer than its apical width, slightly widened toward the apex, and nearly 1.3 times as wide apically as basally; ovipositor-sheath longer, about 1.3 times as long as the whole body. Length, 6—7 mm. (without ovipositor)....
..... *Aspidocolpus semanoti* sp. nov.

Family Ichneumonidae

Subfamily Pimplinae

***Ichnocerus seticornis* KRIECHBAUMER var. *sapporensis* UCHIDA**

Ichnocerus (!) *seticornis* KRIECHBAUMER var. *sapporensis* UCHIDA, Jour. Facul. Agr. Hokkaido Imp. Univ. 25 : 15, ♀, Pl. I. Fig. 7, 1928.

Specimens examined : 1 ♀ (9-ix-50), 1 ♂ (6-vi-52), & 1 ♀ (18-vi-52), Kamabuchi, Yamagata-ken, bred from larvae of *Semanotus rufipennis*, N. YOGO leg.

Host : *Semanotus rufipennis* MOTSCHULSKY.

The present specimens are kindly identified with this species by Professor Dr. TOICHI UCHIDA, to whom I wish to express my cordial thanks for his kindness.