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Descriptions of Three New Species of Aphidius Parasitic on Some Aphids of Coniferous Trees (Taxonomic Notes on Aphidiidae of Japan, 3)

Author(s)
Watanabe, Chihisa

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DESCRIPTIONS OF THREE NEW SPECIES
OF APHIDIUS PARASITIC ON SOME APHIDS
OF CONIFEROUS TREES*
(TAXONOMIC NOTES ON APHIDIIDAE OF JAPAN, III**)

BY

CHHISA WATANABE

(With two Textfigures)

*Aphidius konoi sp. nov.

3. Black; mouth-parts and prothorax beneath fusco-testaceous; antennae
dark brown. Wings hyaline, slightly infumated towards the apex; tegulae fusco-
testaceous; stigma and vein brown. Legs fusco-testaceous; hind coxae fuscous
basally. Abdomen black, with the 1st and 2nd sutures and the lateral margins
of the 2nd tergite pale brown.

Head transverse, smooth and shining, with white pubescence; antennae
longer than the body, 31-jointed. Thorax smooth and shining; parapsidal
furrows strongly impressed, almost smooth. Propodeum reticulate-rugulose,
delevious at the strong transverse carina, the anterior face with a median
longitudinal carina which extends from the anterior margin to the transverse
carina, and the posterior face broadly excavated medially, with two widely
separated longitudinal carinae extending from the transverse carinae to the
posterior margin and bordering the excavation. The outlines of the stigma
and nervures in the apical half of the fore wing weakly defined, not so sharp as
those of nervures in the basal half. Stigma 3 times as long as broad; 1st
abscissa of the radius as long as the stub of the 2nd; intercubitus two-thirds
the length of the 2nd abscissa of the radius; nervulus postfurcal by it own length.
Abdomen clavate, a little longer than the head and thorax united; 1st tergite
convex, finely rugulose, linear to beyond the tubercles which are situated anterior
to the middle, from the tubercles the lateral sides gradually widened towards
the apex, 2 times as long as broad at the apex; 2nd and following tergites

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**11: Ins. Mats., XV, pp. 53-56 (1940).

106 [Ins. Mats., Vol. XV, No. 3. March, 1941]
smooth and shining. Length, 4.5-5 mm.

♀. Unknown.

Host: *Cinara longipennis* (Matsumura).*

This species has been reared at Sapporo by Dr. H. Kono from *Cinara longipennis* infesting *Abies sachalinensis*.


**Habitat**: Hokkaido (Sapporo).

Remarks: This species resembles *Aphidius grossus* (Fähringer)**, a parasite of *Cinara ececoni* del Guercio in Europe, but is easily distinguishable from the latter by the colour of the body and by the structure of the propodeum.

**Aphidius inouyei** sp. nov.

♀. Head and thorax dark brown to black; face and mouth-parts fusco-testaceous; antennae dark brown, the two basal joints fusco-testaceous. Pro-thorax more or less fusco-testaceous. Wings slightly infumated, especially towards the apex, below the stigma and along the basal nervure; tegulae fusco-testaceous; stigma and veins brown, the intercubitus colourless. Legs fusco-testaceous, the middle pair more or less infuscate in the femora and tibiae; hind legs still darker, the femora at the apex, the tibiae except the base and the tarsifuscous. Abdomen fusco-testaceous, the basal tergites fuscos, paler on each suture. Ovipositor-sheath black.

Head transverse, smooth and shining, with white pubescence; antennae shorter than the body, 22- to 24-jointed. Thorax almost smooth and shining; mesonotum more or less rugulose, the parapsidal furrows obsolete. Propodeum almost smooth and shining, hollowed out at the base of the 1st abdominal segment, the excavation bordered in front and at the sides by sharp carinae, the median transverse carina forming the anterior border of the excavation, and the median longitudinal carina extending from the anterior margin to the transverse carina. Stigma 3 times as long as broad; metacarpus a little longer than the length of the stigma; 1st abscissa of the radius curved inwardly, as long as the stub of the 2nd, which is 3 times the length of the intercubitus; nervulus slightly postfurcal; nervus parallelus interstitial with the medial nervure. Abdomen lanceolate, longer than the head and thorax united; 1st tergite weakly rugulose, deeply excavated basally, linear to beyond the tubercles, which are

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**Festschrift 60. Geburtst. Prof. Dr. E. Strand, III, p. 244, 9 8 (1937) (as *Colomerus grossus*).
situates at the middle, from the tubercles the lateral sides gradually widened
towards the apex, 2.5 times as long as broad at the apex; 2nd and following
tergites smooth and shining; ovipositor slightly exserted, the sheath compressed,
stout, somewhat curved upwards at the apex. Length, 3.5-4 mm.

♀. Closely resembles the female in general structure and colour, but
differs from the latter as follows:
Antennae 25- or 26-jointed; 1st tergite stout, not so apparently widened
towards the apex as in the female. Length, 3-3.5 mm.

![Fig. 1. Fore wing of *Aphidius inouyei* sp. nov. (♀). ca. x 30](image).

*Host: Cinara todocolus* (INOUYE).*

This species has been reared at Nopporo by Mr. M. INOUYE from *Cinara
todocolus* infesting *Abies sachalinensis*.

**Holotype (♀) and Allotype (♂):** Nopporo, 26. VII, 1938, M. INOUYE leg.,
and deposited in the Entomological Institute of the Hokkaido Imperial University,
Sapporo. **Paratypes:** 4 ♀♀, 1 ♂, 22. VI, 1937, 4 ♀♀, 4 ♂♂, IX, 1937, 9 ♀♀,

**Habitat:** Hokkaido (Nopporo).

Remarks: This species comes near *Aphidius pictus* HALIDAY**, from which
is easily distinguished by the structure of the 1st tergite, by the colour of the
thorax and by the transparency of the wings.

*Aphidius jezoensis* sp. nov.

♀. Head and thorax dark brown; face, mouth-parts, two basal joints of
the antennae and prothorax always fusco-testaceous; mesothorax sometimes

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*Ins. Mats., X, p. 131 (1936) (as *Tuberolachnus todocolus*).

fusco-testaceous beneath. Abdomen fusco-testaceous, somewhat infuscated dorsally. Wings hyaline; tegulae fusco-testaceous; stigma and veins fuscous. Legs fusco-testaceous; hind pair slightly infuscate. Ovipositor-sheath black.

Head transverse, smooth and shining, with white pubescence; antennae shorter than the body, 18- or 19-jointed. Thorax smooth and shining; mesonotum more or less punctate, the parapsidal furrows slightly impressed posteriorly. Propodeum smooth and shining, somewhat rugulose laterally, hollowed out at the base of the 1st abdominal segment, the excavation narrower than that of the preceding species, *Aphidius inouyei*, bordered in front and at the sides by sharp carinae; the median longitudinal carina extending from the anterior margin to the transverse carina which forms the anterior border of the excavation. Stigma 2.5 times as long as broad; metacarpus a little shorter than the length of the stigma; 1st abscissa of the radius a little longer than the stub of the 2nd, which is nearly equal to the intercubitus in length; nervulus interstitial or slightly postfurcal; nervus parallelus interstitial with the medial nervure. Abdomen lanceolate, longer than the head and thorax united; 1st tergite slightly convex, closely reticulate-rugulose, deeply excavated at the base, more or less widened towards the apex, 3 times as long as broad at the apex, the tubercles scarcely discernible; 2nd and following tergites smooth and shining; ovipositor subexserted, the sheath compressed, slender, rather acute at the apex, and straight. Length, 2.5-3.5 mm.

♀. Similar to the female, but differs from the latter in the following respects:

Body and legs darker in colour; wings whitish hyaline; abdomen fuscous above, with a luteous patch in the middle; antennae more slender than in the
female, 20- to 22-jointed; 1st tergite fusco-testaceous, not at all widened towards the apex. Length, 2-3 mm.

Host: *Cinara nopporensis* INOUYE*; *Laclmiella costata* (ZETTERSTEDT).*

This species has been reared at Sapporo by Dr. H. KÔNO from *Cinara nopporensis* infesting *Picea jezoensis* and *Picea Gleimii* and at Nopporo by Mr. M. INOUYE from the same aphid. It has been also reared at Sapporo by Dr. H. KÔNO from *Laclmiella costata* infesting *Picea Gleimii* and *Picea jezoensis*.


Habitat: Hokkaido (Sapporo and Nopporo).

Remarks: This species closely resembles the preceding species, *Aphidius inouyei*, but is easily distinguished from the latter by the number of the antennal joints, by the venation and transparency of the wings, by the carination of the propodeum and by the structure of the 1st tergite and the ovipositor-sheath.

*Aphidius pini* HALIDAY (1834)

This species is somewhat variable in colour, particularly of the mesonotum of the female. In a series of one male and two females reared from *Cinara pineti* (KOCH), the male agrees perfectly with the writer’s redescription based on a series of specimens from *Cinara larcicolus* (MATSUMURA), while the females differ from it as follows:—

♀. Head excepting the vertex, prothorax entirely and mesopleura on the posterior half fusco-testaceous; mesonotum fusco-testaceous with a large fuscos spot on each lobe.

Further, in the present series the antennae are 22-jointed (♀) and 25-jointed (♂).

Host: *Cinara pineti* (KOCH).

The present specimens were reared at Sapporo by Dr. H. KÔNO from *Cinara pineti* (KOCH) infesting *Pinus densiflora*.

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**Fn. Ins. Lapp., I, p. 157 (1832) (as *Aphis costata*); INOUYE, Ins. Mats., XI, p. 105 (1937) (as *Laclmiella costata*).”

“Ins. Mats., XV, p. 54 (1949).”
Habitat: Hokkaido (Sapporo, 2♀, 1♂, 8. VII, 1937, Kôno leg.).

Here the writer's acknowledgment must be expressed to Dr. HIROMICHI KÔNO and Mr. MOTONORI INOUYE for the interesting material supplied by them.

摘　要

本邦産アブリナチョ科の分類学的研究の第2報及びに第3報にて針葉樹を侵害するオホアブリ族 (Lachnini) の針藤類に寄生する5種のアブリナチョを記録した。而してそれぞれのアブリナチョ及び寄主たるアブラムシは次の如くである。

1. Aphidius pini Haliday
   寄主 Cinara laricicolus (Matsumura)
   Cinara finetii (Koch)
   マツオホアブラバチ（新種）
2. Aphidius laricis Haliday
   寄主 Cinara laricicolus (Matsumura)
   カラマツオホアブラ
   クロマツオホアブラ
3. Aphidius kônoi Watanabe (sp. nov.)
   寄主 Cinara longifennis (Matsumura)
   カラマツオホアブラ
4. Aphidius inouyei Watanabe (sp. nov.)
   寄主 Cinara todolocul (Inouye)
   キバラオホアブラバチ（新種）
5. Aphidius jezoensis Watanabe (sp. nov.)
   寄主 Cinara nopp01ensis (Inouye)
   Lachnella costata (Zetterstädtt)
   エゾオホアブラバチ（新種）

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