

THE SAWFLY GENUS *TRICHIOCAMPUS* IN JAPAN
(HYMENOPTERA: TENTHREDINIDAE)

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Abstract. — Adults of the three Japanese species of *Trichiocampus* are keyed and recorded: *Trichiocampus populi* Okamoto, *T. pruni* Takeuchi, and *T. flaviventris* sp. nov.

Trichiocampus Hartig is a small genus containing about six species that occur in the Holarctic Region. Two species, *T. populi* Okamoto, 1912, and *T. pruni* Takeuchi, 1956, were previously known from Japan. Recently, I obtained four specimens reared from larvae feeding on poplar in Hokkaido and have concluded that they represent a new species. In this paper, I describe this new species and give a key to the Japanese species of this genus.

Trichiocampus Hartig

Cladius, subgenus *Trichiocampus* Hartig, 1837, Fam. Blatt. Holzwesp., p. 176.

Type-species. — *Nematus grandis* Lepeletier. Desig. by Rohwer, 1911.

Diagnosis. — Antenna long and slender. Antenna of male simple, not pectinate. Anterior basitarsi shorter than the following segments combined (Fig. 5). Lancet without lateral armature, but with twelve to seventeen segments. Venation similar to that of *Cladius*.

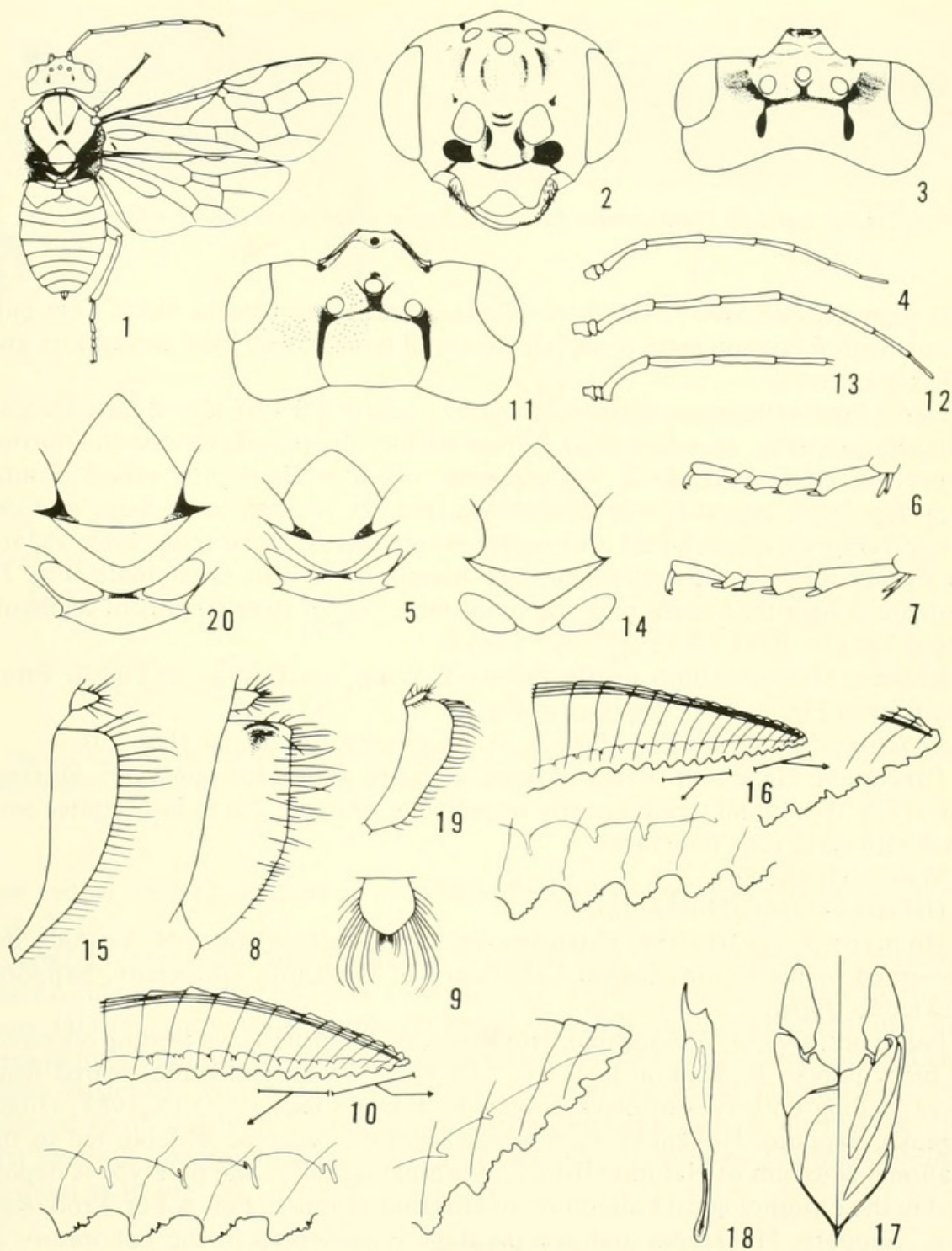
KEY TO THE JAPANESE SPECIES (FEMALES)

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|--|------------------------------|
| 1. Body black | 2 |
| – Head and thorax black; abdomen yellowish orange; costa of forewing yellow | <i>flaviventris</i> sp. nov. |
| 2. Large species (length 8–9 mm). Wings beyond stigma distinctly hyaline; legs yellowish white, except for black coxae | <i>populi</i> Okamoto |
| – Small species (length 5 mm). Wings uniformly infusate; legs black | <i>pruni</i> Takeuchi |

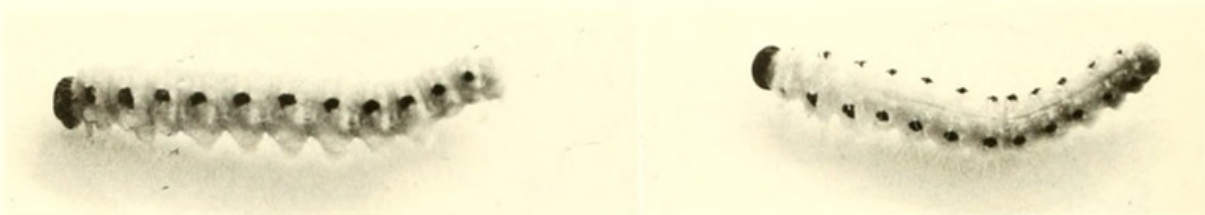
Trichiocampus flaviventris Togashi, NEW SPECIES

Figs. 1–10, 21–26

Female. — Length 6.5 mm. Head and thorax black; maxillary and labial palpi light brown but basal two segments and basal half of 3rd segment of maxillary palpus black; cenchri yellowish white. Antenna brown except for black two basal segments, but dorsal surface darker. Wings slightly infusate but beyond the stigma of forewing distinctly hyaline; costa and subcosta of forewing yellow, other veins



Figs. 1-20. Figs. 1-10. *Trichiocampus flaviventris*. 1, Dorsal view. 2, Head, front view. 3, Head, dorsal view. 4, Antenna, lateral view. 5, Mesoscutellum and cenchri, dorsal view. 6, Front tarsus, lateral view. 7, Hind tarsus, lateral view. 8, Sawsheath, lateral view. 9, Do, dorsal view. 10, Lancet. Figs. 11-18. *Trichiocampus populi*. 11, Head, dorsal view. 12, Antenna of female, lateral view, 13, Do of male. 14, Mesoscutellum and cenchri. 15, Sawsheath, lateral view. 16, Lancet. 17, Male genitalia, dorsal aspect on right half, ventral aspect on left half. 18, Penis valve. Fig. 19. *Trichiocampus pruni*. Sawsheath, lateral view. Fig. 20. *Trichiocampus viminalis*. Mesoscutellum and cenchri.



Figs. 21a, b. Larva of *Trichiocampus flaviventris*. Larva: a, lateral view; b, dorsal view.

and stigma dark brown. Abdomen yellowish orange, sawsheath black. Legs pale yellow with following parts black: all coxae, all femora, and hind tarsus; fore and mid tarsi brown.

Head: Postocellar area transverse (length : width = 1.0:1.6); lateral furrows deep and elongate (Fig. 3); postocellar furrow slightly depressed; interocellar furrow depressed; OOL : POL : OCL = 1.0:1.4:1.6; lateral walls slightly raised; frontal area depressed; lateral foveae punctiform (Fig. 2); median fovea large and depressed (Fig. 2); supraclypeal area rather evenly raised; malar space long, as long as a diameter of front ocellus; anterior margin of clypeus emarginate (Fig. 2). Antenna longer than costa plus stigma of forewing, relative lengths of segments about 2.0:1.0:10.0:13.5:12.5:8.5:8.5:5.0:5.0.

Thorax: Mesoscutellum nearly flattened. Wing venation as in Fig. 1. Front tarsus as in Fig. 6; hind tarsus as in Fig. 7.

Abdomen: Sawsheath as in Figs. 8, 9; lancet with 17 serrulae (Fig. 10).

Punctuation: Head and thorax covered with fine setigerous punctures, shining; 1st to 6th abdominal tergites nearly impunctate, shining; 7th to last tergites covered with setigerous punctures.

Male.—Unknown.

Habitat.—Japan (Hokkaido).

Holotype: ♀, 3.VIII.1984, Hitsuzigaoka, Sapporo, Hokkaido, N. Yoshida leg. Preserved in the Entomological Laboratory of Hokkaido University, Sapporo, Hokkaido, Japan.

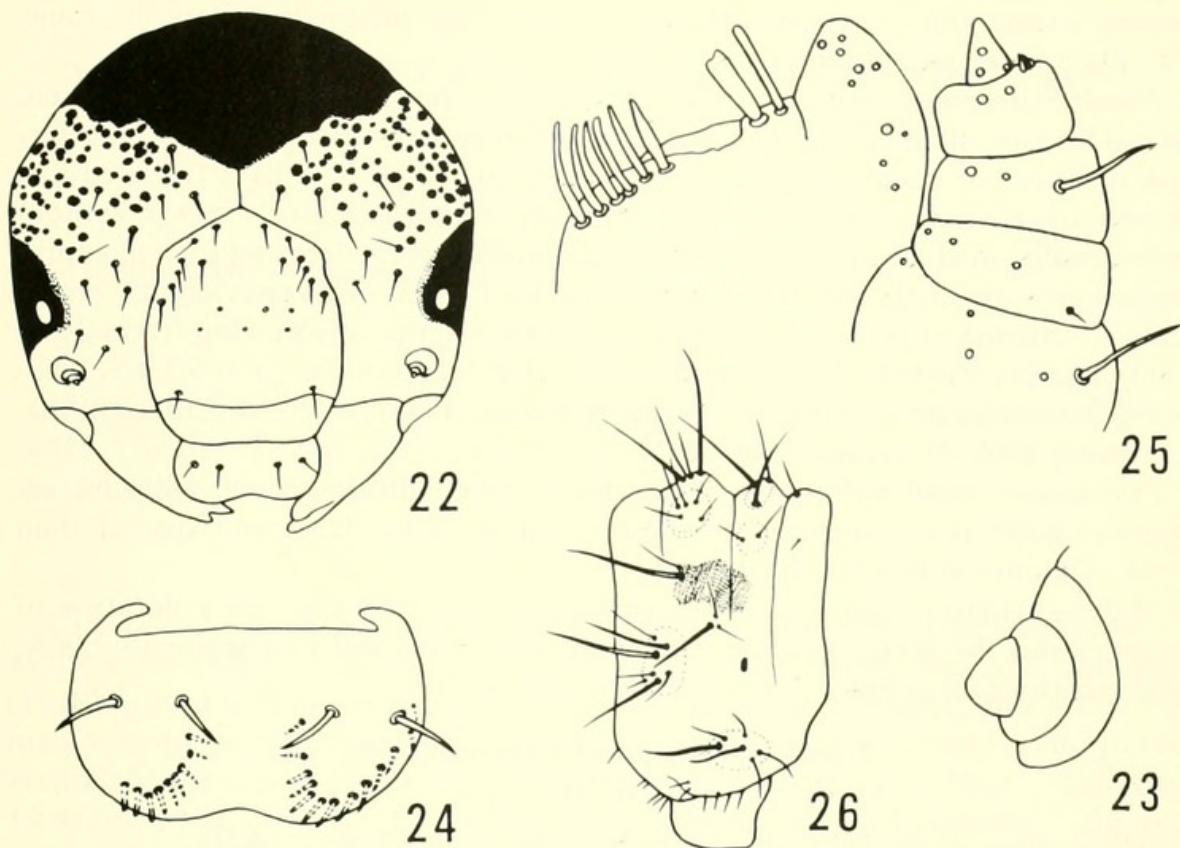
Paratypes: 1 ♀, 5.II.1963, Bibai, Hokkaido, reared from larva feeding on leaves of black poplar, K. Kamijo leg.; 1 ♀, 2.IX.1969, Bibai, Hokkaido, reared from larva feeding on leaves of black poplar, K. Kamijo leg.; 1 ♀, 5.IX.1984, Hitsuzigaoka, Sapporo, Hokkaido, N. Yoshida leg. One paratype is deposited in the National Museum of Natural History, Washington, D.C.; one paratype is deposited in the Entomological Laboratory of Hokkaido Branch, For. & For. Prod. Res. Inst., Sapporo, Hokkaido, and one paratype is preserved in the Laboratory of Biology, Ishikawa Agricultural College, Ishikawa.

Remarks.—The new species closely resembles *T. viminalis* (Fallén) but is easily separable from the latter by the black pronotum, tegulae, mesopleuron, and sawsheath, the form of the lateral furrows of the postocellar area, and the form of the mesoscutellum (see Figs. 5, 20).

Food plant: *Populus nigra* Linn. var. *italica* Muenchh.

Larva (Juvenile).—Head dark brown, with lighter-colored area around frons, frons, and mouth parts. Body pale yellow.

(Ultimate).—Length 17.5 mm. Head dark brown, with following parts yellowish white: frons, around frons, and mouth parts except for black mandibles. Body



Figs. 22–26. *Trichiocampus flaviventris*. Larva. 22, Head, front view. 23, Antenna. 24, Epipharynx. 25, Maxilla. 26, The third abdominal segment, lateral view.

pale yellow, with black spots on each side of each segment except for last segment (Fig. 21).

Head: Frontal aspect nearly circular in outline (Fig. 22); vertical furrows nearly absent; antenna conical and with three joints; frons nearly pentagonal, with many setae; labrum symmetrical; epipharynx as in Fig. 24, with four setae; maxilla with large palpifer; palpus 4-segmented; galea rather small (Fig. 25); lacinia broad and rather flattened, with eight rather strong setae along apical margin (Fig. 25). **Thorax:** Prothorax with 2 annulets; meso- and metathorax with 4 annulets. The first to ninth abdominal segments with 4 annulets. **Abdomen:** Third abdominal segment as in Fig. 26.

Trichiocampus populi Okamoto, 1912

Figs. 11–18

Trichiocampus dopuli [sic.] Okamoto, 1912. Hokkaido-no-kaiho, p. 120 (in Japanese).

Specimens examined: 1 ♀, data unknown, Miyagi Prefecture, K. Goukon leg.; 1 ♂, Ichinose, Shiramine-mura, foot of Mt. Hakusan, Ishikawa Prefecture, ?III. 1976, reared from larva feeding on leaves of *Populus maximowiczii* Henry, I. Togashi leg.

Female.—Length 8–9 mm. Body black but tegulae yellowish brown. Antenna black. Wings hyaline, but basal half of forewing smoky; costa of forewing yellowish

brown, stigma and other veins blackish brown. Legs yellow to yellowish orange but all coxae black; all tarsi darker.

Head: Postocellar area slightly convex; postocellar furrow slightly depressed; lateral furrows distinct (Fig. 11); interocellar furrow depressed; circumocellar furrow distinct but anterior half absent; OOL:POL:OCL = 1.0:1.2:1.3; area just in front of anterior ocellus distinctly depressed; frontal area gently raised, without lateral walls; median fovea large and deep; lateral foveae large and deep; supra-clypeal area distinctly roundly convex; anterior margin of clypeus slightly emarginate. Antenna slightly longer than costa plus stigma of forewing (ratio 1.04:1.00), relative lengths of segments about 2.0:1.0:7.0:8.0:8.0:6.7:6.0:5.3:4.7. *Thorax*: Mesoscutellum as in Fig. 14, nearly flattened. *Abdomen*: Sawsheath as in Fig. 15; lancet with 20 serrulae (Fig. 16).

Punctuation: Head and thorax except for mesoscutellum covered with fine setigerous punctures; punctures on mesoscutellum rather large and sparser than head. Abdominal tergites shagreened.

Male.—Length 6 mm. Closely resembled female except for the coloration of antenna and the sexual organs. Antenna brown but basal two segments black. Male genitalia as in Fig. 17; penis valve as in Fig. 18.

***Trichiocampus pruni* Takeuchi, 1956**

Fig. 19

Trichiocampus pruni Takeuchi, 1956. Ins. Mats. 19: 78, fig. 11A–D.

Specimen examined: 1 ♀, 29.IV.1937, Kyoto, Takeuchi leg.

The larva feeds on *Prunus*. The description and illustrations of the female lancet and male genitalia were given by Takeuchi (1956). The following are supplemental to his description: Postocellar area convex; postocellar furrow depressed; lateral furrows deep; interocellar furrow depressed; circumocellar furrow rather distinct but anterior half absent. Sawsheath as in Fig. 19.

ACKNOWLEDGMENTS

I express my cordial thanks to N. Yoshida of Hokkaido Branch, For. & For. Prod. Res. Inst., Sapporo, K. Kamijo of Hokkaido Forest Experiment Station, Bibai, and K. Goukon of Tohoku-gakuen University, Sendai, for their kindness in giving me the valuable specimens. I am indebted to David R. Smith, Systematic Entomology Laboratory, Agricultural Research Service, USDA, Washington, D.C., for his kind advice and the gift of the specimen of *T. viminalis*, and to H. Kuroko of Osaka Prefectural University, Sakai, for the loan of the specimen of *T. pruni* Takeuchi.

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