

## On the New Species of the Genus *Glossosoma* from Japan (Trichoptera, Insecta)

Mineo KOBAYASHI

### 日本産 *Glossosoma* 属の新種について

現在まで、わが国から *Glossosomatidae* ヤマトビケラ科に属する種として *Glossosoma lauta* (TSUDA), *Glossosoma hospita* (TSUDA), *Glossosoma inops* (TSUDA) の3種が記録されている。私は1955年5月、神奈川県清川村中津地域において、別種と思われる2種の標本を採集した。そこで、上記3種と比較研究した結果、おのおのが別種であることが判明したので、ここに国際命名規約にしたがって、新種として記載し、*Glossosoma specularis*, *Glossosoma japonica* と命名した。今回の発表によって、わが国に産する *Glossosoma* に属する種は5種となる。(小林 峯生)

Three species of the genus *Glossosoma* have been reported from Japan, and these species are described by Dr. Tsuda in 1940 as *Glossosoma lauta* (Tsuda), *Glossosoma hospita* (Tsuda) and *Glossosoma inops* (Tsuda) from Honshu in Japan. The fourth and the fifth species of the genus *Glossosoma* was collected by myself in Nakatsu mountain torrent, Kiyokawa-mura Kanagawa Prefecture in 1955, and determined as new species after comparison with all species of the genus *Glossosoma*. Therefore, these are described and figured in the following pages.

### *Glossosoma specularis* sp. nov. (Plate 1)

Head blackish brown, with long pale brown hair; the anterior margin remarkably projected in between antennae, with long hair. Eyes large, black. Ocelli present. Vertex of the head with four warts; anterior two warts yellowish brown, smaller than the size of the posterior warts, covered with a few long brown hair; posterior warts yellowish brown, elongate, covered with long brown hair.

Antennae slender, yellowish brown, about  $\frac{2}{3}$  the length of anterior wing, clothed with short yellowish brown hair; the basal joint thicker than the length of the basal one, the third joint longer than the length of the basal and the second joints; the other joints much short, clothed with short brown hair, the each joints with a ring.

Maxillary palpi five-jointed, blackish brown, clothed with short brown hair;

the basal joint thick, slightly longer than the length of the second one; the second joint short, thicker than the size of the other joints; the third joint much longer than the length of other joints, about twice the length of the basal and the second joints combined; the fourth joint slender, slightly shorter than the length of the third one; the fifth joint slender, as long as the fourth joint.

Labial palpi four-jointed, blackish brown, clothed with short brown hair; the basal joint shorter than the length of the other ones, the second joint about twice the length of the basal joint, the third joint as long as the second one, the fourth joint slightly longer than the third joint.

Thorax blackish brown, pale chestnut beneath. Pre-thorax much short, clothed with long hair. Meso-thorax wide, long, with long hair; scutellum elongate, clothed with short hair. Meta-thorax short, scutellum clothed with short hair.

Spurs 2-4-4. Anterior leg slender, yellowish brown, clothed with hair; femur darker than the other segments, with a few long hair; tibia with two spurs; spurs shorter than the length of the spurs of middle and posterior legs, the inner spur longer than the length of the outer spur. Middle leg clothed with short hair; tibia with four spurs, the outer spurs shorter than the length of the inner spurs; the preapical spurs as long as the length of the apical spurs. tarsi much slender, with short spine; spine brown, thin. Posterior leg clothed with yellowish brown hair; tibia much slender, with four spurs; spurs black, preapical spurs longer than the length of the apical spurs; the inner spur of the apical spurs thicker and shorter than the outer spurs, strongly curved inward; tarsi with many brown spines.

Anterior wing elongate, translucent, pale brown, clothed with comparatively long blackish brown hair; the apical forks nos. 1, 2, 3, 4 and 5 present. Veins thick, brown. Costa clothed with many brown hair. Subcost slender, contacted with Cost. Radius thick, contacted with Subcost by one cross-vein. Sector radius (Sr) contacted with median (m) by indistinctly one cross-vein; media branched two veins, contacted with cubitus by one cross-vein; thyridial cell elongate; median cell open; the hind margin curved; the near part of cross-vein of Srr and Tz with one variegation; Ar with one variegation; the each variegations small, elongate, without hair; bz with darkish brown spots, the spots slender, semicircle-shaped, covered with short brown hair.

Posterior wing short, about  $\frac{2}{3}$  the length of the anterior wing, translucent, clothed with short brown hair; the apical forks nos. 1, 2, 3 and 5 present. Veins thick, yellowish brown. Radius slender, slightly curved inward. Sr branched. Discoidal cell closed; M slender, contacted with discoidal cell by one cross-vein;  $A_1$  and  $A_2$  clothed with hair of which is much longer than the length of the other hair.

Abdomen blackish brown; dorsal side with many hair, ventral side of the

sixth tergites with a long projection; the seventh tergites with one wart. The tenth segment blackish brown, long; the basal portion wide, the apical portion curved downward; the apical margin with long brown hair, divided into two long parts; the upper part slender, with long hair, slightly longer than the length of the lower part; the lower part thick, clothed with long black hair, curved downward.

Appendages paranalis yellowish gray, elongate, longer than the length of the tenth segment, clothed with short brown hair, stick-shaped.

Measurement: Male, body 5mm, anterior wing 9mm, posterior wing 6.5mm.

Locality: Holotype 1♂, and paratype 2♂, 3♀, Nakatsu mountain torrent, Kiyo-kawa-mura Kanagawa Prefecture, May 28, 1955, collected by M. Kobayashi.

Remarks: This species resembles very much to three species of the genus *Glossosoma* in venations, in size of the body and antennae, but it can easily be distinguished by the spots on Bz of the anterior wing, by darker than these in colour, in the form of the projections in the sixth and the seventh tergites, and especially by the structure of male genitalia.

*Glossosoma japonica* sp. nov. (Fig 1 and Plate 2)

Head blackish brown, clothed with short yellowish brown hair; mouth-parts not elongate. Eyes large, black. Ocelli present, small, black. Anterior wart absent. Posterior-lateral warts present; posterior-lateral warts brown, elongate, ellipse-shaped. Antennae slender, almost yellowish brown, about  $2/3$  of the length of anterior wing, clothed with short yellowish brown hair; the basal joint thicker than the joints; the second joint shorter than the length of the basal one; the third joint longer than the basal and the second ones; the remaining joints much shorter, the each joint with a ring.

Maxillary palpi five-jointed, blackish brown; the terminal joint not articulated; the first and the second joints short, thick, clothed with long black hair; the following joints long.

Labial palpi five-jointed, blackish brown, clothed with short brown hair; the first joint shorter than the length of the other ones; the second joint about twice the length of the first one; the third joint as long as the second one; the fourth joint slightly longer than the third one.

Pronotum much short; tegulae clothed with long yellowish brown hair; mesonotum blackish brown; the united line of mesoscutellum with long brown hair.

Spurs 2-4-4. Anterior leg slender, clothed with long yellowish brown hair; femur darker than the other segments; tibia with two spurs; spurs short, black; the inner spurs longer than the outer spurs. Middle leg yellowish brown, clothed with short yellowish hair; hair long, brown; tibia with four spurs, spurs black, the inner spur of preapical spurs as long as the length of the outer spur; the



outer spur of apical spurs longer than the inner spur, as long as the length of the outer spur of preapical spur; tarsi much slender, with a few short spine; spine brown. Posterior leg brown, clothed with yellowish brown hair; tibia slender, with four spurs; the inner spur of preapical spurs as long as the length of the outer spur, the outer spur of the apical spurs longer than the inner spur, as long as the length of outer spur of preapical spur; tarsi much slender, with a few spines, spine short, brown.

Anterior wing elongate; translucent, grayish brown, clothed with blackish brown hair, the margin with long hair; posterior margin hair much longer than the other hair. Apical forks nos. 1, 2, 3, 4 and 5 present. Discoidal cell present; R forked; thyridial cell present; an additional costal cross-vein present.

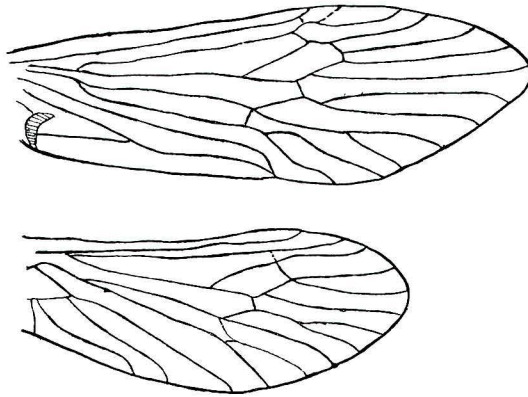


Fig 1 *Glossosoma japonica* sp. nov. Venation of the wings

Posterior wing short, slightly narrower than the anterior wing; translucent, paler than the anterior wing; the near part of the apical margin clothed with hair; the apical forks nos. 1, 2, 3 and 5 present. Discoidal cell present.

Abdomen grayish brown; dorsal side with many hair, the sixth tergites with long spine; spine thick, scoop-shaped; the seventh tergites with one wart.

The ninth segment large, blackish brown, without hair; the apical margin deeply craved. Supperior appendage longer, clothed with blackish brown hair, divided into two parts; the upper part elongate; the under part shorter than the upper part; from dorsal, elongate, divided into two parallel plate. Inferior appendage much longer, clothed with blackish brown hair; the basal portion narrow; from ventral side, divided into two parallel plates processed,

Measurement: Holotype, Male, body 7 mm, anterior wing 9 mm, posterior wing 7 mm.

Locality: Holotype 1 ♂ and paratype 5 ♂, Nakatsu mountain torrent, Kiyokawa-mura, Kanagawa Prefecture, May 28, 1955, collected by M. Kobayashi.

Remarks. This new species resembles very much to other species of this genus in coloration, in venation of the both wings, but can easily be distinguished by the structure of male genitalia.

(All type specimens are preserved in the Kanagawa Prefecture Museum, Yokohama, Japan).

## Explanation of Plates

Plate 1. *Glossosoma specularis* sp. nov.

- |                  |                                   |
|------------------|-----------------------------------|
| A. Head          | G. Sixth tergites in lateral view |
| B. Mesonotum     | H. Sixth tergites in ventral view |
| C. Metanotum     | I - K. Male genitalia             |
| D. Anterior leg  | I. Lateral view                   |
| E. Median leg    | J. Ventral view                   |
| F. Posterior leg | K. Dorsal view                    |

Plate 2. *Glossosoma japonica* sp. nov.

- |                       |                                     |
|-----------------------|-------------------------------------|
| A - C. Male genitalia | G. Metanotum                        |
| A. Lateral view       | H. Anterior leg                     |
| B. Ventral view       | I. Median leg                       |
| C. Dorsal view        | J. Posterior leg                    |
| D. Head               | K. Sixth tergites in lateral view   |
| E. Maxillary palpi    | L. Seventh tergites in ventral view |
| F. Mesonotum          |                                     |

