AN INTERESTING *DERMESTED* BEETLE FROM JAPAN

By

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For several years we have been engaged in study on this interesting *Dermestid* beetle which has very remarkable systematic characters and peculiar habits of life. In this paper, however, we will make a systematic description and write an outline of its habits of life, detailed study on the latter will be published in some other day when the bionomic investigations would be completed.

*Orphiloides* n. g.

Much resembles the genus *Anthrenus* or *Orpilus* in its appearance, but differs from the former in its not-scaled body, and from the latter in its remarkable structure of the mouth part.

Mandibles massive with two minute teeth along the interior edge of each extremity. Labrum small, semi-lunate, with a slight notch at the middle of its anterior margin. Maxillary palpi three jointed, much broad and flat; the 1st joint cup-shaped, the 2nd short and broad, the 3rd much dilated and strongly securiform; lacinia externa somewhat broad, interna narrow; they are fringed with pubescence on their interior borders. Labium much elongated, the 1st joint long and conical, the 2nd small, rounded at its extremity. Glossa broad, having no notch along its rounded border. Mentum very long and slender, narrowed at the middle, thickened towards both ends. Submentum large and transverse. Antenna eleven jointed, differently formed by the sexes. In the male the last joint much dilated triangularly like a kitchen-knife, while in the female being globular and clavate. Prosternum small and transverse, with a long prosternal process at the middle of its posterior margin which is bluntly ended. Mesosternum large and broad. Metasternum very small and triangular. Legs short and fine. Tarsi five jointed. Front coxae somewhat cylindrical, situated obliquely, more or less contacted with each other, the middle one small and conical, separated from each other, the hind one large, its upper face strongly concave so as to form a boat-shape.

Genotype—*Orphiloides ovarius* Mats. et Yok.
Orphioleoides ovivorus n. sp.

Body dark brown, oval. Head short and transverse. Frons slightly concave, closely and finely punctured, furnished with brownish yellow hair. Compound eyes large and prominent, on the vertex with a small ocellus. Antenna brownish, in the male the 1st joint large and quadrate, the 2nd smaller than the 1st, somewhat quadrate, the 3rd smaller and narrower than the 2nd, its outer edge more or less elongated outwardly, the 4th, 5th and 6th subequal; they are closely contacted with each other and their outer edges strongly elongated outwardly, the 7th small, broader than long, from the 8th to 10th, transverse, thickened towards the terminal joint, the last one extremely elongated, triangular and far longer than the preceding joints taken together, each joint being furnished with fine yellowish hair. In the female the 1st joint of antennae large and globular, the 2nd smaller than the 1st, subquadrate, the 3rd rounded, far smaller than the 2nd; the 4th to 7th segments almost equal in size and form, the 8th somewhat larger than the preceding joint, the 9th far broader than long, the 10th strongly transverse, the 11th extremely large and globular, each joint being furnished with yellowish hair. Maxillary palpi brownish yellow, very large and prominent. Prothorax black, strongly transverse, having numerous fine punctures and brownish yellow hair on its back, with greyish hair on the lateral sides. At the middle on the back with an indistinct cross-like space consisting of three irregular, shining, naked spots, the
lateral and posterior margins reddish (this colour being unrecognizable unless the prothorax taken off from mesothorax), the middle of the posterior margin elongat­ed posteriorly like a tongue, at both sides of this elongation with each a triangular smooth depression. Scutellum black, semi-circular, smooth and shining. Elytra black, more or less shining bronze, closely punctured, having two indistinct transverse bands of scantly greyish hair and with small quantity of the same hair at the base. Under surface of the body finely punctured and furnished with fine yellowish hair; posterior margin of each abdominal joint reddish, the last joint conical, projected beyond the elytra and thickly covered with brownish yellow hair on its back. Legs reddish with the exception of femur which is brownish black, being provided with yellowish hair. Body length about 3 mm. in the male, 3-4 mm. in the female.

Habitat—Very common in various localities of main-island of Japan and Formosa, likely to be found also in Hokkaido, Shikoku and Kiushu.

Habits:—The larva of the present beetle has a parasitic habit and lives upon, so far as our study concerned, the eggs of several species of mantis (e. g. Tenodera capitata, T. aridifolia, Pseudmantz's maculata and Hirodula bipapilla) and of a spider as Araneus cornutus.

This insect passes the winter in the larval stage within an Ootheca of mantis. The hibernated larva pupates at the end of May and appears as the first adult during the middle and the end of June. The female of this first appearance lays her eggs on some favorite host to bring its larvae to maturity, however, to our great regret, the host of the first larva is not yet found. Second adult appears at the first part of September, and the female finds her place of deposition of eggs on an Ootheca of mantis. From the eggs the larva hatches about the middle of October and it passes the winter within the Ootheca feeding on the eggs as already mentioned.