

A NEW SPECIES OF *THECOLAX* WESTWOOD (HYMENOPTERA: PTEROMALIDAE) FROM CHINA

Hui Xiao and Da-Wei Huang

Institute of Zoology, The Chinese Academy of Sciences, Beijing, 100080, China.

Email: xiaoh@panda.ioz.ac.cn; huangdw@panda.ioz.ac.cn (All correspondence to second author)

ABSTRACT. – *Theocolax ingens*, new species, is described from Beijing, China. It is close to *T. phloeosini* Yang, and can be separated from the latter by the following characters: forewing without a distinct macula; marginal vein 8.7 times as long as stigmal vein; propodeum with median carina distinct at base. Its host belongs to bark beetles, but no detailed information from the type specimens.

KEY WORDS. – China, *Theocolax*, new species, Hymenoptera, Pteromalidae.

INTRODUCTION

Westwood (1832) described the genus *Theocolax*. *Laesthia* Haliday was synonymized with *Theocolax* by Graham (1969). *Choetospila* Westwood and *Spalangiomorpha* Girault were synonymized with *Theocolax* by Bouček (1988). *Theocolax* can be recognized by the following characters: head almost parallel-side, longer than broad (Fig. 1); occipital carina distinct; antennal insertion under the lower ocular line; antennal formula 11053 or 11063; pronotum elongate; notauli complete; forewing with postmarginal and stigmal vein very short, with a tuft of bristles at proximal end of marginal vein.

Six species were known in the world. They are parasites of small beetles associated with grain or of anobiid beetles. Only *T. phloeosini* Yang was reported from China (Yang, 1989). A new species, *T. ingens*, is described in present paper.

MATERIALS AND METHODS

The material studied here are deposited in the Zoological Museum, Institute of Zoology, Chinese Academy of Sciences. Materials were prepared for scanning electron microscopy. Head, antennae, mesosoma, wings and legs were separated from each other, and mounted on a stub prior to sputter coating with gold. Specimens were examined using Zeis CSM-950 Scanning electron microscope at 10KV.

Theocolax ingens, new species (Figs. 1-9)

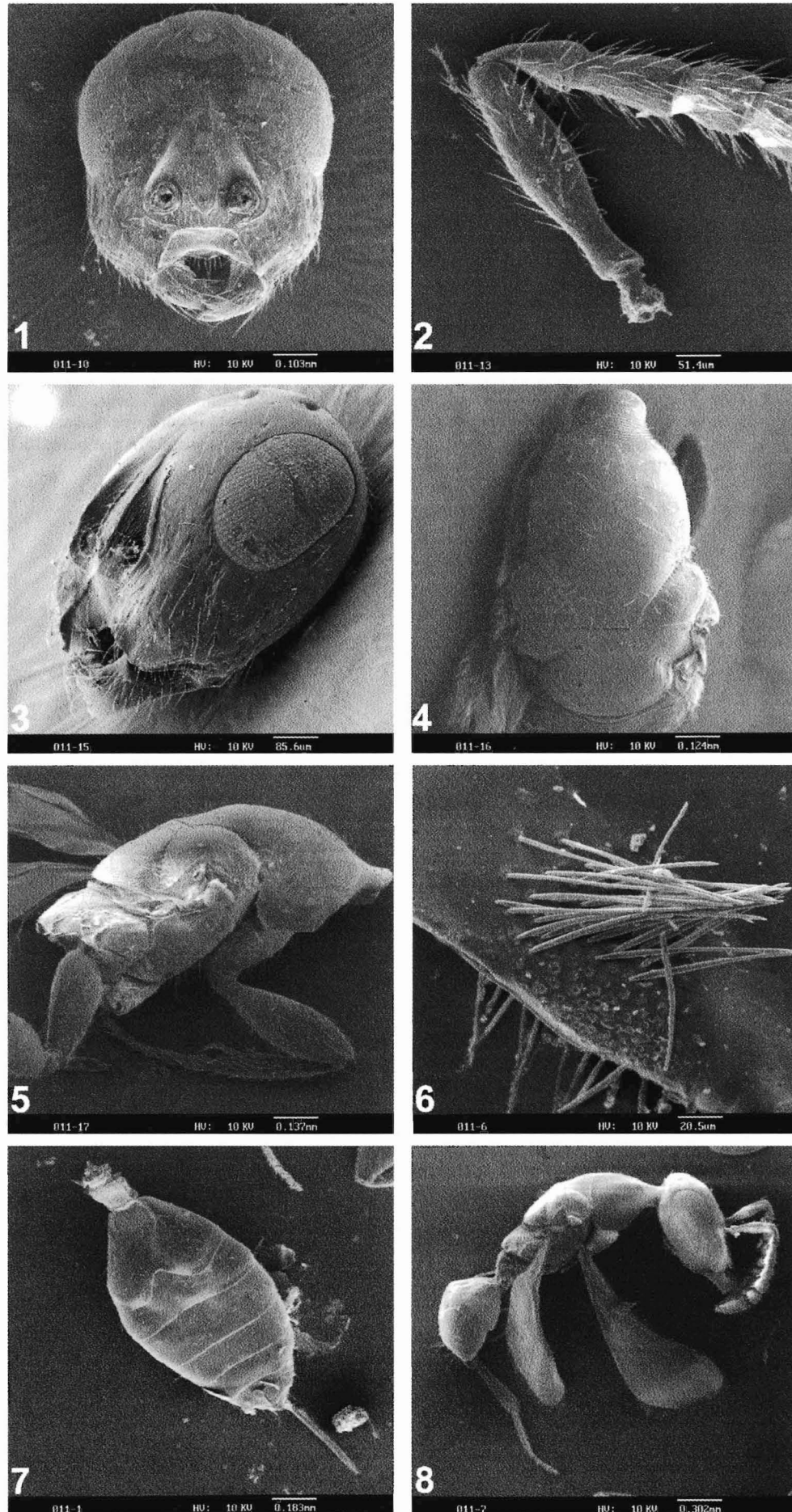
Material examined. – Holotype – female, type locality: China, Beijing, coll. Hui-fen Yin, 1 Jul.1981, ex. bark beetle.

Paratypes – 2 females and 6 males, same data with Holotype.

Description. – **Female.** Body length 2.5 mm. Body smooth without puncture; head, margin of pronotum, propodeum and legs yellowish brown; thorax and gaster brown.

Head in front view (Fig. 1) smooth, lower face scattering small puncture with distinctly long hairs; scrobes deep (Fig. 3); clypeus large with clypeal margin emarginate broadly; mandible with right 3 teeth, left 4 small teeth. Antennal insertion under the lower ocular line; scape not reaching median ocellus; anellus absent (Fig. 2); F1 longer than pedicel and each other funicular segment; each funicular segment with a row of sensilla; flagellum and pedicel combined longer than head width; clava slightly clavate, micropilosity indistinct. Relative measurements: head width 31, head length 38, POL:OOL as 9:8, eye height 19, eye space 20, antennal torulus to clypeal margin 10, antennal torulus to median ocellus 21.

Thorax very smooth and flatten (Figs. 4, 5), scattering long setae. Pronotum elongate; mesoscutum very short, width about 3.2 times length; propodeum with densely transverse striation in dorsum, median carina distinct anteriorly, plica absent. Forewing without a distinct macula (Fig. 9); marginal fringe long; a tuft of bristles at proximal end of marginal vein (Fig. 6); marginal vein about 8.7 times stigmal vein;



Figs. 1-8. *Theocolax ingens*, female. 1, head in front view, 2, antenna (showing scape and F1-F3), 3, head in lateral view, 4, mesosoma in dorsal view, 5, mesosoma in lateral view, 6, a tuft of bristles at proximal end of marginal vein, 7, gaster, 8, male body in lateral view.

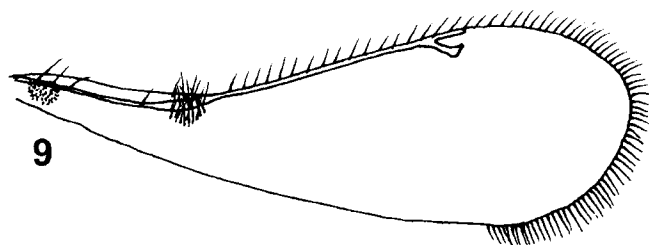


Fig. 9. *Theocolax ingens*, female. forewing

marginal vein as long as stigmal vein. Petiolus with a longitudinal rib laterally, shallow reticulate in dorsum; gaster (Fig. 7) with T1 longer than others. Relatively measurements: pronotum length 18, width 23, mesoscutum 9:29, scutellum 17:17, propodeum length 10, marginal vein 35, postmarginal vein 4, stigmal vein 4, petiolus 8:6.5, gaster 60:34, ovipositor length 25.

Male. – Body slightly shorter than female. Head longer than female in facial view; clypeal margin deeply emarginate; mandible with 2 large teeth on both sides; gaster with petiolus 1.6-1.7 times as long as broad; gaster short (Fig. 8) with T5, T6 and T7 invisible in dorsal view.

Remarks. – This new species is close to *T. phloeosini* Yang. It can be separated from the latter by the following characters: propodeum with median carina distinct at base; forewing without a distinct macula; marginal vein about 8.7 times stigmal vein.

Biology. – Parasites of bark beetles. No further information on the host from the labels.

Distribution. – China (Beijing).

ACKNOWLEDGMENTS

The project is partly supported by NNSFC (No. 39900014) and Young Scientist Grants of CAS (C2999081). Thanks are especially due to Zdenek Bouček (The Natural History Museum, London) for kindly providing specimens of *Theocolax*, and to Ms. Yang Wen-Yan. (Tsinghua University) for helping in using scanning electron microscope.

LITERATURE CITED

- Bouček, Z., 1988. Australasian Chalcidoidea (Hymenoptera) - A biosystematic revision of genera of fourteen families, with a reclassification of species. *C.A.B. International*, Wallingford, 1-831.
- Graham, M. W. R. de V., 1969. The Pteromalidae of North-Western Europe (Hymenoptera: Chalcidoidea). *Bull. Br. Mus. (nat. Hist.) Ent. Suppl.*, **16**: 1-908.
- Westwood, J. O., 1832. Descriptions of several new British forms amongst the parasitic hymenopterous insects. *Lond. Edinb. Dubl. Phil. Mag.*, **1**: 127-129.
- Yang, Z. Q., 1989. One new species and other pteromalids parasitizing bark-beetles in Shaanxi, China (Hymenoptera, Chalcidoidea, Pteromalidae). *Entomotaxonomia*, **11**: 97-103.