

Linzer biol. Beitr.	41/1	885-888	30.8.2009
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New records of Aphidiidae (Hymenoptera) from Nepal

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Abstract: In literature (TAKADA 1970) three species of Aphidiidae (Hymenoptera) from Nepal were known: *Ephedrus himalayensis* GÄRDENFORS, *Ephedrus nacheri* QUILIS and *Binodoxys nepalensis* TAKADA. In this paper a new one for the fauna of Nepal is reported: *Binodoxys heraclei* (HALIDAY 1833). The materials were collected with entomological net in Mustang and Lamjung range.

Key words: Aphidiidae, Hymenoptera, parasitoid, aphid, Nepal, Aphid parasitoids.

Introduction

The fauna of Aphidiidae (Hymenoptera) of Nepal is not very well studied. Altogether 3 species (*Ephedrus himalayensis* GÄRDENFORS, *Ephedrus nacheri* QUILIS and *Binodoxys nepalensis* TAKADA) have been recorded from these areas (TAKADA 1970); (ASTAFUROVA et al. 2007). There are some publications from different regions of that part of Himalaya. From Garhwal ranges, India, (CHAKRABARTI et al. 2002) reported 38 parasitoids, from Kashmir (TAKADA 1980, DAR 2002) 66 species. From that we can supposed that aphidiid fauna of Nepal consists of a big number of species.

Here are presented two species *Aphidius matricariae* HALIDAY and *Binodoxys heraclei* HALIDAY. From them *B. heraclei* is new for the fauna of Nepal.

Material and methods

All the materials were collected with entomological net mostly around Lamjung and Kalopani districts. The insects were deposited in 77 % alcohol for further determination. From all materials were separate four aphidiids (two male and two female). The determination is carried out only on the basis of females (STARY 1966).

The identified material is deposited in the collection of the author.

Results

Aphidius matricariae HALIDAY 1834

M a t e r i a l : Mustang, Kalopani, 2500 m, 11.10.2006. Coniferous belt.

H o s t : *Acyrtosiphon*, *Aphis*, *Aspidaphis*, *Aulacorthum*, *Brachycaudus*, *Brevicoryne*, *Capitophorus*, *Corylobium*, *Dysaphis*, *Diuraphis*, *Eucarazzia*, *Forda*, *Galiobium*, *Hayhurstia*, *Hyalopterus*, *Hidaphis*, *Hidaphias*, *Israelaphis*, *Linosisiphon*, *Metopolophium*, *Myzus*, *Neomizus*, *Ovatus*, *Phorodon*, *Rhopalosiphum*, *Schizapliis*, *Sitobion*, *Toxoptera*, *Uroleucon*.

Binodoxys heraclei HALIDAY 1833

M a t e r i a l : Lamjung, Jagat, 1300 m. 11.10.2006. Coniferous belt.

H o s t : *Aphis*, *Cavariella*, *Pterocomma*, *Semiaphis*.

Ephedrus sp.

M a t e r i a l : Mustang, Kalopani, 2500 m. 11.10.2006. Coniferous belt.

Binodoxys sp.

M a t e r i a l : Lamjung, near Bhulbhule, 800 m. 29.09.2006.

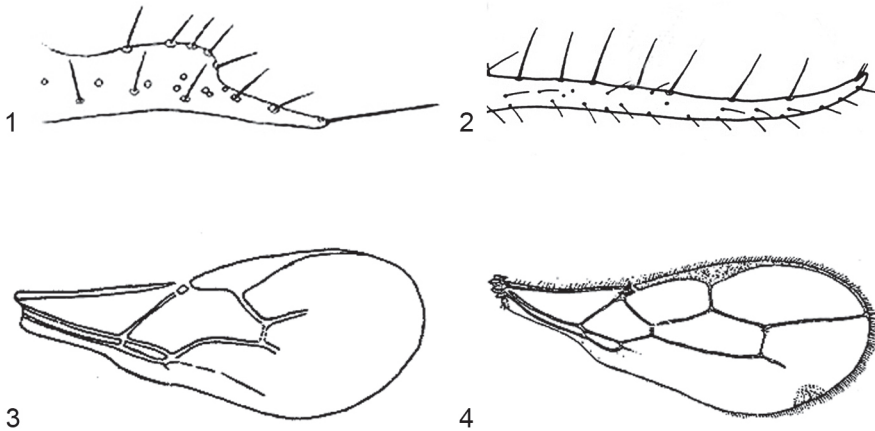


Fig. 1-4: (1) Caudal prongs of *B. nepalensis*; (2) Caudal prongs of *B. heraclei*; (3) Fore wing of *A. matricariae*; (4) Fore wing of *E. himalayensis*.

Key to the species

- 1 (2) Fore wing with completely closed medial cell (fig 4)..... *Ephedrus*
 1 (2) First flagellar segment 1, 1-1, 2 times longer than the second
 *E. himalayensis* GÄRDENFORS
 2 (1) First flagellar segment, 2 times longer than the second..... *E. nacheri* QUILIS
 2 (1) Fore wing lacking medial cell (fig 3)
 3 (4) Last abdominal sternite lacking projections *Aphidius* (*A. matricariae* HALIDAY)
 4 (3) Last abdominal sternite with two processes *Binodoxys*
 1 (2) Caudal prongs short (fig. 1), straight, with 5 moderately long bristles on the dorsal
 surface and a very long one at the apex..... *B. nepalensis* TAKADA
 2 (1) Caudal prongs curved with 5-6 bristles on the dorsal surface (fig. 2)
 *B. heraclei* HALIDAY

Acknowledgments

I would like to thank Prof. Dimitar Betshev from Department of Biology, University of Plovdiv, for the collecting of the materials from Nepal.

Zusammenfassung

Aus der Literatur (TAKADA 1970) sind bisher drei Aphidiidae-Arten (Hymenoptera) aus Nepal bekannt: *Ephedrus himalayensis* GÄRDENFORS, *Ephedrus nacheri* QUILIS und *Binodoxys nepalensis* TAKADA. Vorliegende Arbeit weist eine weitere Art für das Untersuchungsgebiet aus: *Binodoxys heraclei* (HALIDAY 1833). Das zugrundeliegende Material wurde mit Fangnetz in Mustang und Lamjung erbeutet.

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Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2009

Band/Volume: [0041_1](#)

Autor(en)/Author(s): Todorov Ognyan Bozhilov

Artikel/Article: [New records of Aphidiidae \(Hymenoptera\) from Nepal 885-888](#)