

CORRESPONDENCE

A new species of *Dinocarsiella* (Hymenoptera: Encyrtidae) from China

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Abstract *Dinocarsiella brevicula* **sp. nov.** is described from Tibet, China. Photomicrographs are provided to illustrate morphological characters of the species. The specimens including the holotype were deposited in Institute of Zoology, Chinese Academy of Sciences, Beijing (IZCAS).

Key words Hymenoptera, Encyrtidae, *Dinocarsiella*, new species, China.

Dinocarsiella Mercet, 1921 is a small genus in subfamily Tetracneminae (Hymenoptera: Encyrtidae), with currently three recognized species, *D. alpina* (Girault, 1917), *D. pulcherrima* Erdős (1957) and *D. quinqueguttata* Xu, 2020 (Xu & Lou, 2000). All known species are distributed in the Palaearctic Region (Noyes, 2019). The genus *Dinocarsiella* was placed in tribe Dicarnosini by Trjapitzin (1973, 1989), and then Anagyrini by Noyes & Hayat (1994). Female *Dinocarsiella* are characterized by: notauli present and often complete; scape often distinctly expanded and flattened; flagellum relatively long and slim, each funicular segment clearly longer than the width; fore wing varying from fully developed to strongly shortened, in the fully developed forms, the fore wing often with dark brown bands; maxillary palpi 4-segmented, labial palpi 3-segmented (Zhang & Huang, 2004).

During the current investigation of Hymenoptera natural enemies on the Qinghai-Tibetan Plateau, a species belonging to *Dinocarsiella* Mercet, 1921 was found to be an undescribed species. Here, we described this species as new for science. The specimens including the holotype were deposited in Institute of Zoology, Chinese Academy of Sciences, Beijing (IZCAS).

The specimens in the present study were collected by sweeping from Tibet, China, and by Malaise Trap from Shandong, China. The parasitoid individuals were dissected and mounted in Canada balsam on slides generally following the method described by Noyes (1982). Morphological terminology and abbreviations follow Zhang & Huang (2004) and Noyes & Hayat (1994) with some modifications. Absolute measurements were used for body length. Photos of slide-mounted specimens were taken using a Canon EOS550D digital camera coupled to a Leica DM-2500 microscope.

Dinocarsiella brevicula **sp. nov.** (Figs 1–11)

Diagnosis. Females of *Dinocarsiella brevicula* **sp. nov.** are generally similar to *D. alpina* (Girault, 1917), *D. pulcherrima* Erdős (1957) and *D. quinqueguttata* (Xu, 2000) in habitus. *D. brevicula* **sp. nov.** can be separated from the other species by the combined followings: mesoscutum completely dark brown; antennal scape about 3.3× as long as broad; forewing strongly shortened with its apex not reaching base of gaster.

Description. Female. Body length (including ovipositor sheath) about 1.5 mm; head mainly yellow (Fig. 1), except vertex adjacent to occipital margin marked brown, and interantennal prominence longitudinally marked brown in middle;

urn:lsid:zoobank.org:pub:38A6DE6C-6B07-412B-AD23-784794002D60

Received 4 November 2020, accepted 25 April 2021

Executive editor: Fuqiang Chen

outer side of torulus with dark brown band toward eye margin; occiput black; thorax and gaster almost entirely dark brown (except pronotum anteriorly with two yellowish white spots on each side, visible only in slide mounted specimens (Fig. 2)); antenna (Fig. 4) entirely dark brown; tegula (Fig. 5) brown; forewing (Fig. 6) brown; hind wing (Fig. 7) yellowish brown; legs (Figs 8–10) mainly black, but first segment of mid tarsus yellow, first segment of fore and hind tarsus yellowish brown.

Head. Head (Fig. 1) about $2.1 \times$ as wide as frontovertex; ocelli forming an angle slightly more than 60° ; distance



Figures 1–11. *Dinocarsiella brevicula*, **sp. nov.**, female. 1. Head, frontal view; 2. Pronotum, frontal view; 3. Thorax (without pronotum), dorsal view; 4. Antenna; 5. Tegula; 6. Fore wing; 7. Hind wing; 8. Fore leg; 9. Mid leg; 10. Hind leg; 11. Ovipositor. Scale bars: 1–4, 8–11 = 200 μm ; 5–7 = 100 μm .

between posterior ocellus about twice length of its own diameter; eyes not reach occiput margin; distance between torulus about same as its own diameter; distance between torulus and clypeus mouth margin about $1.2\times$ as long as torulus diameter; antenna (Fig. 4); scape distinctly expanded and flattened, about $3.3\times$ as long as broad; pedicel about $2.0\times$ as long as broad, about $0.6\times$ as long as F1; funicular segments becoming shorter towards apex, F1 about $3.5\times$ as long as broad, F6 about $2.8\times$ as long as broad (and about $0.8\times$ as long as F1); clava 3-segmented, about as long as length of F5 and F6 together, apex more or less rounded.

Thorax. Mesonotum slightly convex, with reticulated sculpture; mesoscutum with notaular lines complete; scutellum about as long as broad (Fig. 3); forewing (Fig. 6) strongly shortened and about $1.7\times$ as long as broad, apex not reaching base of gaster; mid tibia spur about $0.8\times$ as long as basitarsus (Fig. 9).

Gaster. Gaster with ovipositor (Fig. 11) not exerted or hardly so, a quite shorter than mid tibia (about $0.6\times$); hypopygium reaching apex of gaster; cerci located in apical half of gaster.

Variation. Very little in material available.

Male. Unknown.

Host. Unknown.

Distribution. China (Xizang).

Material examined. Holotype ♀, CHINA, Xizang, Dingri ($28^{\circ}39'N$, $87^{\circ}07'E$), 02.VII.2018, coll. Qingtao Wu (Code 18XZ01-03) (IZCAS). Paratypes. 3♀, same data as holotype (IZCAS).

Etymology. This species name refers to its strongly shortened forewing.

Dinocarsiella quinqueguttata Xu, 2000

Dinocarsiella quinqueguttata Xu, 2000, In: Xu & Lou, 2000: 215–218; Zhang & Huang, 2004: 59; Huang *et al.*, 2011: 61–66.

Host. Unknown.

Distribution. China (Liaoning, Shandong, Xinjiang).

Material examined. 1♀1♂, CHINA, Shandong, Lanling ($34^{\circ}40'N$, $117^{\circ}50'E$), 24.VI.2014, coll. Qingtao Wu; 2♀1♂, CHINA, Shandong, Taian ($117^{\circ}06'E$, $36^{\circ}16'N$), 20.VII.2015, coll. Qingtao Wu.

Funding This project was supported by the National Natural Science Foundation of China (31872296) and the second comprehensive scientific investigation of the Qinghai-Tibetan Plateau (2019QZKK0501).

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