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## Review of *Tumidiclava* Girault (Hymenoptera: Trichogrammatidae) from Xingjiang, China, with description of two new species and taxonomic notes on other Holarctic taxa

ZHULIDEZI AISHAN<sup>1</sup>, SERGUEI V. TRIAPITSYN<sup>2</sup> & HONG-YING HU<sup>1\*</sup>

<sup>1</sup>College of Life Science and Technology, Xinjiang University, Urumqi, Xinjiang, P.R. China.

E-mail: 307917017@qq.com; hoohyi-69@163.com

<sup>2</sup>Entomology Research Museum, Department of Entomology, University of California, Riverside, California, USA

### Abstract

Four species of *Tumidiclava* Girault are recorded from Xinjiang Uyghur Autonomous Region, China. Two new species, *T. buerjinica* Triapitsyn & Aishan **sp. nov.** and *T. tamariska* Hu & Aishan **sp. nov.**, are described; the former is also known from Turkmenistan and the latter from Israel. One Palaearctic species, *T. subcaudata* Nowicki, is newly recorded from China, and a key to females of the Chinese species is given. Taxonomic notes and illustrations are provided on these and also other described taxa of *Tumidiclava* from the Holarctic region, both sexes of which are keyed including the type species of the genus, *T. pulchrinotum* Girault (USA), whose male is newly described. Lectotypes are designated for *Orthoneura bimaculata* Blood & Kryger, 1928 and *T. (Orthoneurella) minuscula* Nowicki, 1940 and a neotype is designated for *Orthoneura bimaculata* Blood, 1923.

**Key words:** Chalcidoidea, egg parasitoid, taxonomy, Palaearctic, Nearctic

### Introduction

*Tumidiclava* Girault (Hymenoptera: Trichogrammatidae) was described by Girault (1911) based on one Nearctic species, *T. pulchrinotum* Girault, from Illinois, USA. Females of *Tumidiclava* are distinguished by the antennal club which is rather swollen and has a terminal process (Doutt & Viggiani 1968). Currently, this cosmopolitan genus includes 18 described, valid species in the world (Noyes 2014) but it is poorly known, with only a few keys available for several countries or regions, including Lin (1991, 1994) for China, Yousuf & Shafee (1988) and Yousuf *et al.* (1998) for India, and Fursov (2007) for Europe. Here we report four species of *Tumidiclava* collected from Xinjiang Uyghur Autonomous Region, China, including two new species that are described and illustrated. Another Palaearctic species, *T. subcaudata* Nowicki, is newly recorded from China. Additional distribution records for the described Palaearctic species of *Tumidiclava* are given based on examination of specimens in several European museum collections as well as in the Entomology Research Museum, University of California at Riverside, California, USA, which is the depository of the largest collection of Trichogrammatidae in the world. Its holdings of *Tumidiclava* are quite large (about two full drawers of specimens on points, cards, and slides), although material from the Palaearctic region is quite limited. Nevertheless, we have identified all the previously described species of the genus from several European countries and that has allowed us to properly compare our material from China with these taxa. Also examined was the holotype of *T. pulchrinotum*; we identified several non-type specimens of this species from Illinois and some other states in the USA, and these were compared with the known Palaearctic species, for which all the available type material was studied. A few additional, undescribed species were also identified from various countries in the Palaearctic region but these are not described because of the very limited material available.

Because China is situated in two biogeographical ecozones (Palaearctic and Oriental), we provide two keys to the species of *Tumidiclava*—one for China, and the other for the entire Holarctic region.

**Distribution.** USA (Girault 1911) and Uruguay (De Santis 1979). Lin (1994) also listed it from Australia, without providing any reference(s). The non-North American country records need verification. According to Pinto (2006), this species is broadly distributed in North America.

**Hosts.** Unknown.

**Comments.** This species was described from the holotype from Centralia, Illinois, USA (as “Type”), one paratype female from Urbana, Illinois (as a “Cotype”), and one non-type female from Centralia.

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