Two new species of the genus *Celyphoma* Emeljanov, 1971 (Hemiptera: Fulgoromorpha: Issidae) from China

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Abstract

Two new species of the genus *Celyphoma* Emeljanov, 1971 in the tribe Issini, *C. quadrupla* sp. nov. and *C. bifurca* sp. nov., are described and illustrated. In addition, the male and female reproductive systems of *C. quadrupla* sp. nov. are described. A key to all 26 species in the genus is provided.

Key words: Issini, new species, reproductive system, taxonomy

Introduction

The genus *Celyphoma* Emeljanov, belonging to the tribe Issini of the family Issidae (Hemiptera: Fulgoromorpha), was established by Emeljanov (1971) based on the species *Hysteropterum fruticulinum* Emeljanov from Kazakhstan. Subsequently, Emeljanov (1978), Chelpakova (1989), Lukyanova (1992), Mitjaev (1995), and Anufriev (2004) described several species from South and Southeast Kazakhstan, Kyrgyzstan, Tajikistan and Northwest China. Additionally, *Hysteropterum karatepitsum* Dlabola 1961 from Uzbekistan and *Phasmena atomata* Mitjaev 1971 from Southeast Kazakhstan have been successively transferred to *Celyphoma* (Mitjaev, 1989; Dlabola, 1980). Most recently, Anufriev (2004) reviewed all known species of the genus and provided a key to species.

Currently, *Celyphoma* comprises 24 species, distributed in the Central Palaearctic region. Its representatives are common in arid and semi-arid landscapes (clay, loess and gravelly desert and semi-desert, semi-arid mountains) on the plains and hills of Central Asia, the low mountains and midlands mountain range of Tien Shan. In the present paper, we describe two new species, *C. quadrupla* sp. nov. and *C. bifurca* sp. nov., from Northwest China, and provide an updated key to all known species of the genus.

Material and methods


External morphology was observed under a Leica MZ 125 Microscope. The genital segments of the examined specimens were dissected out and macerated in 10% NaOH solution at approximately 90°C for about 15 minutes, and subsequently transferred into glycerin. The male and female reproductive systems of specimens were dissected out in distilled water. Photographs of the specimens were made using a Nikon SMZ1500 stereomicroscope with a Q-image CCD. Images were produced using the software Automontage (Synoptics, U.K.). All specimens studied are deposited in the Entomological Museum of Northwest Agriculture and Forestry University (NWAFU).