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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

Terminology used for the external morphology and the male genitalia mainly follows Chan & Yang (1994). The description of the female genitalia mainly follows Bourgoin (1993) and Gnezdilov (2002).

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).

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