



Taxonomic review of the *lepida*-group of *Fannia* R.-D. (Diptera: Fanniidae)

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Abstract

The *Fannia lepida*-group is reviewed. *Fannia immutica* Collin is recorded for the first time in China. A key to males of the four known species is provided. *Fannia lepida* (Wiedemann), *F. grahami* Chillcott, and *F. immutica* Collin are re-described and the male terminalia illustrated. *Fannia grahami* remained unrecorded since its 1961 original description.

Key words: *Fannia*, *Fannia lepida*-group, new record, China, redescrptions

Introduction

The *Fannia lepida*-group belongs to the genus *Fannia* Robineau-Desvoidy, 1830. Chillcott (1961a) established the *Fannia mutica*-group, consisting of three species, *Fannia mutica* (Zetterstedt), *F. immutica* Collin and *F. oregonensis* Chillcott. Shortly afterwards, Chillcott (1961b) described an additional new species, *F. grahami*, into the *F. mutica*-group from Sichuan, China. Rozkošný *et al.* (1997) revised the *Fannia* from Europe, including two species (*F. immutica* and *F. lepida*) into this group. Because *F. mutica* had been placed in synonymy with *F. lepida* (Wiedemann), Rozkošný *et al.* (1997) used the name *F. lepida*-group, instead of the *F. mutica*-group.

While sorting and identifying Fanniidae from Mt. Changbai, Northeast China, we found *F. immutica*, which is re-described below as a new record for China. And the discovery of *F. grahami* Chillcott within a material collected from the Southwest China represents the first time the species is recorded since its original description fifty years ago. Therefore, three species of the *Fannia lepida*-group are now known from China. In the present study, we provide a diagnosis of the group and also re-describe these three species (*F. lepida*, *F. immutica* and *F. grahami*) as they were not adequately described previously.

Material and methods

The specimens were examined, illustrated and measured using a stereoscopic microscope Olympus SZX16 with camera lucida and ocular micrometer. Male terminalia were detached from the body, cleared by warming in a 10% KOH solution (at approximately 100°C) for five minutes, placed in glycerine, and observed under an optical microscope. Morphological terms follow McAlpine (1981), except the “postpedicel” for first antennal flagellomere following Stuckenberg (1999). Absolute measurements are used for body length in millimetres (mm). Abbreviations used for characters include: *a* = anterior seta, *acr* = acrostichal seta, *ad* = anterodorsal seta, *av* = anteroventral seta, *d* = dorsal seta, *dc* = dorsocentral seta, *ia* = intra-alar seta, *p* = posterior seta, *pd* = posterodorsal seta, *pra* = prealar seta, *p_v* = posteroventral seta, and *v* = ventral seta, *bp* = bacilliform process.

All specimens studied are deposited in the Institute of Entomology, Shenyang Normal University (IESNU), Shenyang, China.