



## Three new species of the *Homoneura* (*Homoneura*) *henanensis* species group (Diptera, Lauxaniidae), with a key to Chinese species

JUNCHAO WANG<sup>1</sup>, CAIXIA GAO<sup>2</sup> & DING YANG<sup>1,3</sup>

<sup>1</sup> Department of Entomology, China Agricultural University, Beijing 100193, China. E-mail: dyangcau@yahoo.com.cn

<sup>2</sup> Institute of Zoology, Chinese Academy of Science, Beijing 100080, China

<sup>3</sup> Correspondence author

### Abstract

The following three species of the nominal subgenus of *Homoneura* van der Wulp from China are described as new to science: *H. (H.) beijingensis* **sp. nov.**, *H. (H.) caoi* **sp. nov.** and *H. (H.) kuankuoshuiensis* **sp. nov.** A key to the species of the *H. (H.) henanensis* species group from China is presented.

**Key words:** Diptera, Lauxaniidae, *Homoneura henanensis*-group, new species, China

### Introduction

The genus *Homoneura* van der Wulp belongs to the subfamily Homoneurinae. It is the largest genus in the family Lauxaniidae, with 8 subgenera and more than 600 species in the world. The subgenus *Homoneura* van der Wulp includes more than 500 known species in the world and 94 known species in China, of which 66 species from China were placed into 20 species groups by Shi and Yang (2009). The *Homoneura* (*Homoneura*) *henanensis* species group was proposed according to the following characters: Wing with brown apical spots on R<sub>2+3</sub>, R<sub>4+5</sub> and M<sub>1</sub>, and a brown spot on R<sub>4+5</sub> between crossvein *r-m* and apical spot, brown cloud on crossvein *dm-cu*, no spot on *r-m*; surstylus consisting of inner and outer processes; gonopod consisting of 2 coniform or subuliform processes, shorter than 2/3 length of aedeagus (Shi and Yang, 2009). This species group is distributed in the Palaearctic Region and Oriental Region with 13 known species, including 1 species in Sichuan Province (Malloch, 1926, 1929; Czerny, 1932), 4 species in Henan Province (Yang, Zhu and Hu, 1999), 4 species in Zhejiang Province (Yang, Hu and Zhu, 2001), 3 species in Guizhou Province (Gao and Yang, 2002, 2005), and 1 species in Xizang Province (Gao and Yang, 2003).

In the present paper, three new species in this group are described from China, making a total of 16 species known from that country. A key to separate all species of the group in China is presented.

### Material and methods

Type specimens were deposited in the Entomological Museum of China Agricultural University (CAU), Beijing. The usual collecting method is to sweep flies amongst various breeding places, mainly in moist and shaded habitats.

General terminology follows McAlpine (1981) and Shewell (1987). The following abbreviations are used: *a*—anterior bristle, *acr*—acrostichal bristle, *ad*—anterior dorsal bristle, *app*—apical posterior bristle, *apv*—apical ventral bristle, *av*—anterior ventral bristle, *dc*—dorsocentral bristle, *ia*—intraalar bristle, *oc*—ocellar bristle, *or*—orbital bristle, *pd*—posterior dorsal bristle, *prsc*—prescutellar acrostichal bristle, *pv*—posterior ventral bristle, *sa*—supraalar bristle.