



## Nine new species from China of the subgenera *Chaetohomoneura* and *Neohomoneura* in the genus *Homoneura* (Diptera, Lauxaniidae)

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### Abstract

The following nine species from China are described as new to science: *Homoneura* (*Chaetohomoneura*) *disciformis* **sp. nov.**, *Homoneura* (*Neohomoneura*) *biconcava* **sp. nov.**, *H. (N.) denticuligera* **sp. nov.**, *H. (N.) elliptica* **sp. nov.**, *H. (N.) guangdongica* **sp. nov.**, *H. (N.) longicomata* **sp. nov.**, *H. (N.) nigrimarginata* **sp. nov.**, *H. (N.) pufujii* **sp. nov.**, *H. (N.) quadrifera* **sp. nov.**, and the species *H. (N.) nebulosa* Sasakawa, 2001 is recorded from China for the first time. A key to separate species from China is presented.

**Key words:** Diptera, Lauxaniidae, *Chaetohomoneura*, *Neohomoneura*, new species, China

### Introduction

The genus *Homoneura* Wulp, 1891 consists of 8 subgenera 628 known species, distributed worldwide except for the Neotropical Region, and 5 subgenera 131 known species from China. A key to separate 5 subgenera was given by Sasakawa (1992). Among these, the subgenus *Chaetohomoneura* Malloch includes 12 known species of the world and the subgenus *Neohomoneura* Malloch includes 39 known species of the world and 14 known species from China (see Appendix for list of species). So far the two subgenera are endemic in the Oriental Region.

The two subgenera differ from other subgenera by the mid tibia having a row of strong *p*. The diagnostic characters of the two subgenera are shown in Table 1, but there are two things to note for *apv* and *sa*. Firstly, in the subgenus *Neohomoneura* (Figs. 7, 8), some specimens have 3 strong *apv* (longer than mid tibia's biggest diameter) and 1–2 strong setulae (distinctly shorter than mid tibia's biggest diameter), and in the subgenus *Chaetohomoneura* (Fig. 6), some specimens have 4 *apv* (longer than mid tibia's biggest diameter) and 1–2 strong setulae (distinctly shorter than mid tibia's biggest diameter), and then the evaluation criterion of the quantity of *apv* is that the length of *apv* is equal to or longer than the biggest diameter of mid tibia; secondly, in the subgenus *Chaetohomoneura* (Fig. 2), the posterior *sa* is often stronger and longer than the anterior *sa* except for *H. (C.) disciformis* **sp. nov.** (Fig. 1) (the posterior *sa* is longer than 1/2 length of anterior *sa*), and in the subgenus *Neohomoneura* (Figs. 3, 4), a few of specimens have a long, thin setula behind 1 strong *sa*, but its length shorter than 1/2 length of the strong *sa*, so the evaluation criterion of the quantity of *sa*, if the anterior *sa* is longer than the posterior one, is that the posterior *sa* is longer than 1/2 length of the anterior one. Based on these criteria, the species *Homoneura* (*Chaetohomoneura*) *setuligera* Gao & Yang, 2005 (Figs. 4, 8) from China (Guizhou) was transferred to the subgenus *Neohomoneura* by Shi & Yang (2008). The first author Li Shi checked type specimens and found that the mid tibia has 3 strong *apv* and 1 strong setula (its length distinctly shorter than the biggest diameter of the mid tibia), and 1 strong *sa* is present with 1 long setula (its length distinctly shorter than 1/2 length of the 1 strong *sa*) behind *sa*, and the mid femur has no strong *pv*.