



A review of the genus *Botanophila* Lioy (Diptera: Anthomyiidae) from China, with descriptions of three new species

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Abstract

This paper includes a key to the Palaearctic species groups of *Botanophila*, characteristics of each species group (key and characteristics compiled by Michael Ackland), and keys to the species of *Botanophila* from China. This paper also provides the characters of the genus *Botanophila* and describes three new species, namely *B. densispinula* **sp. nov.**, *B. platysurstyla* **sp. nov.** and *B. subspinulibasis* **sp. nov.**; *Botanophila nigrifrontata* (Fan & Zheng) is synonymized with *B. melametopa* (Fan); and *B. zhuoniensis* (Jin) and *B. nigribella* (Deng) are redescribed. The type specimens of the new species are deposited in the Institute of Entomology, Shenyang Normal University.

Key words: Diptera, Anthomyiidae, *Botanophila*, new species, China

Introduction

Botanophila Lioy is a large genus of Anthomyiidae (Diptera). Lioy (1864) established the genus in 1864, with *B. varicolor* Meigen, 1826, as the single included species. Hockett (1947) was the first author to include a further nine (Nearctic) species in *Botanophila*, as a subgenus of *Hylemyia*. Hennig (1970) re-elevated *Botanophila* to full genus status for a small segregate of species closely related to *varicolor* and placed a much larger group of related species in *Pegohylemyia* Schnabl, 1911. Michelsen (1983) proposed a broadened concept of *Botanophila* with *Pegohylemyia* as a junior synonym. Chinese researchers began to investigate this genus in China from 1970. Fan (1988a) recorded 36 species from China, which included two new species and one new subspecies. Wei *et al.* (1996) recorded 78 species from China. There are currently 140 valid species of *Botanophila* recorded from China in our study. The number of species of *Botanophila* in China is very large, and approaches perhaps a third of the world's species.

Botanophila Lioy, 1864

Botanophila Lioy, 1864: 990. Type species: *Anthomyia varicolor* Meigen, 1826, by monotypy.

Collinomyia Ringdahl, 1929: 269. Type species: *Aricia gemmata* Zetterstedt, 1860, by monotypy.

Pegohylemyia Schnabl, 1911: 98. Type species: *Musca cinerea* Fallén, 1824 (= *Egeria silvatica* Robineau-Desvoidy, 1830), by monotypy. Synonymized by Michelsen (1983).

Euryparia Ringdahl, 1929: 269. Type species: *Anthomyia varicolor* Meigen, 1826), by monotypy. Preoccupied by Becker, 1911 (Chloropidae).

Monochrotogaster Ringdahl, 1932: 19. Type species: *Monochrotogaster unicolor* Ringdahl, 1932, by monotypy.

Pseudomyopina Ringdahl, 1933: 31. Type species: *Aricia moriens* Zetterstedt, 1845, by monotypy.