



## A review of the Oriental *Japanagromyza* Sasakawa (Diptera: Agromyzidae), with descriptions of four new species

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### Abstract

The Oriental agromyzid leafminers of the genus *Japanagromyza* Sasakawa are reviewed. Four new species, *Japanagromyza browni* and *J. hymenoedemia* from Thailand, *J. cestra* from Malaysia and South China, *J. intricata* from Malaysia, are described. Six species are recorded as new to Taiwan, Malaysia, Thailand and Vietnam, and one new synonym is established. Key to Oriental species is given. Distribution, systematics and biology of Oriental species are discussed.

**Key words:** Diptera, Agromyzidae, *Japanagromyza*, Oriental, new species, new records

### Introduction

The genus *Japanagromyza* Sasakawa, 1958, was erected for a small group of Japanese species, belonging to the genus *Agromyza* Fallén, 1810 (*A. duchesneae* Sasakawa, 1954, and *quercus* Sasakawa, 1954) and genus *Melanagromyza* Hendel, 1920 (*M. elaeagni* Sasakawa, 1954). It is intermediate between these two genera in the color of halter, thoracic chaetotaxy and structures of the male genitalia. Considering its peculiar characters, I treated it endemically. But, their additional distributions outside Japan, such as *Japanagromyza duchesneae* in Melanesia and Papua New Guinea (Sasakawa 1963a,b), *J. elaeagni* in Bonin Islands (Spencer 1963b), and also *Japanagromyza tristella* (Thomson, 1869) in Indonesia (Java), Singapore and Ceylon (Spencer 1961), Philippines (Spencer 1962b), Vietnam (Sasakawa 1963a), Nepal (Spencer 1965), Bismark Archipelago (Spencer 1966a) and Thailand (Sasakawa 1979), *J. yanoi* (Sasakawa, 1965) in Taiwan (Spencer 1961, as *J. angustifrons* Spencer) and Malaysia (Sabah) (Sasakawa 1996), and *J. angulosa* Sasakawa, 2005, in Laos (Sasakawa 2009), were recorded, and 17 further species were described from Oriental and Australasian/Oceanian regions (Sasakawa 1963a,b; Spencer 1962a,b and 1963a,b). Moreover, as the distributional knowledge of the world species advances, it was found to be much more represented in the Oriental/Australasian regions as well as in Neotropical region than in Japan.

The 11 species of the genus hitherto known in Oriental region have been revised. In the present paper, 16 Oriental species are discussed, four of which are described as new to science: *Japanagromyza browni* sp. nov., *J. cestra* sp. nov., *J. hymenoedemia* sp. nov., and *J. intricata* sp. nov. In addition, six species, *J. cupreata* Sasakawa, 1963a, *duchesneae* (Sasakawa, 1954b), *elaeagni* (Sasakawa, 1954a), *eucalypti* Spencer, 1963, *involuta* Spencer, 1977b, and *setigera* (Malloch, 1914), are recorded as new to Taiwan, Malaysia, Thailand, and Vietnam, respectively, and one new synonym is established.

### Materials and methods

The study is based on materials in the following collections: Bernice P. Bishop Museum (BPBM), Honolulu, Hawaii, U.S.A. and Natural History Museum of Los Angeles County (NHMLA), Los Angeles, California,