

# Distribution and importance of polyphagous *Liriomyza* species (Diptera, Agromyzidae) in vegetables in Vietnam

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Field collections of polyphagous *Liriomyza* species were conducted in vegetables in 50 of Vietnam's 62 provinces during 2002–2007. A total of more than 16 800 specimens were identified to species. *L. sativae* Blanchard, 1938 was the dominant species, making up 75.2 % of the total material. It was present and common in all the 50 investigated provinces. *L. huidobrensis* (Blanchard, 1926) made up 8.6 % of the material and was found in 7 provinces in the central parts of the country, from Dong Nai to Da Nang. *L. trifolii* (Burgess, 1880) made up 8.4 % of the material and was found in 13 provinces in the central parts of the country, from Ho Chi Minh City to Hue. *L. bryoniae* (Kaltenbach, 1858) made up 4.0 % of the material and was found in 15 provinces in most of the country north of Ho Chi Minh City. *L. chinensis* (Kato, 1949) made up 3.0 % of the material and was found in 20 provinces all over the country. It was mainly found in onion (*Allium cepa* L.). *Chromatomyia horticola* (Goureau, 1851) made up 0.8 % of the material and was found in relatively low numbers in 9 provinces all over the country from Lam Dong and northwards. The spread of the different species into Vietnam and their possible further spread within the country are discussed, as well as their importance as pest species on different host plants. *L. katoi* Sasakawa, 1961 is reported from Vietnam for the first time.

Key Words: *Liriomyza*, *huidobrensis*, *sativae*, *trifolii*, *chinensis*, *bryoniae*, *Chromatomyia horticola*, polyphagy, Vietnam

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## INTRODUCTION

Several polyphagous *Liriomyza* species have been established in countries in Southeast Asia, causing major pest problems in vegetable growing areas (Martinez 1994, Shepard et al. 1998, Sivapragasam & Syed 1999, Joshi et al. 2000, Rauf et al. 2000, Tran 2000, CAB International 2001, Ha 2001,

Andersen et al. 2002, Winotai & Chattrakul 2003, Tran et al. 2005, 2007). Today the most important species are *L. sativae* and *L. huidobrensis*, while the status of *L. trifolii* and *L. bryoniae* is more uncertain. At present the exact distribution of the different species in Southeast Asia is uncertain, and at least for some of the species probably changing quickly due to further expansion. More detailed