

39 - Kandowangko, D. S., Sembel, D.T. and Watung, J. - Parasitoids of leafminers, *Liriomyza* spp (Diptera: Agromyzidae) on some crops in North Sulawesi, Indonesia

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Four important species of leafminers were collected from infested mined leaves of plants particularly vegetables in North Sulawesi, *Liriomyza sativae* (Blanchard) (Diptera: Agromyzidae), *L. brassicae* (Riley), *L. katoi* Sasakawa and *L. yasumatsui* Sasakawa. *L. sativae* was the most important polyphagous pest, attacking various agricultural and ornamental crops. *L. brassicae* was confined to crucifers while *L. katoi* and *L. yasumatsui* only infested domestic and wild chrysanthemum. The main parasitoid that parasitized the larvae of these leafminers on various plants at all sampling sites was *Hemiptarsenus varicornis* Girault (Hymenoptera: Eulophidae). Other less important parasitoids were *Gronotoma micromorpha* (Perkins) (Hymenoptera: Eucoilidae) which parasitized leafminers on cabbage and chrysanthemum. *Neochrysocharis* sp. (Hymenoptera: Eulophidae) and *Quadrastichus* sp. parasitized leafminers at a very low levels (less than 1 %) and *Opius* sp. (Hymenoptera: Braconidae) which was collected only twice from a mined leaf of tomato in 2003 and 2004.

Notes:

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