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## Larval Parasitoids of *Lyonetia prunifoliella malinella* (MATSUMURA) (Lepidoptera, Lyonetiidae)

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Since the mid 1970's, *Lyonetia prunifoliella malinella* (MATSUMURA) has been an important pest of apple in Aomori Prefecture. It has five to six generations in a year in this area (SEKITA & YAMADA, 1979).

From 1979 to 1981, leaves attacked by *L. p. malinella* larvae in each generation were intensively collected from apple trees in Aomori Apple Experiment Station in Kuroishi. The individual mines of *L. p. malinella* were carefully dissected under the binocular microscope to obtain larvae and pupae of its parasitoids. These larvae and pupae were kept in glass tubes until adults emerge. The reared adults were subjected to the species identification.

Five eulophids were available as the larval parasitoids of *L. p. malinella*. They are listed below together with some notes.

1) *Chrysocharis pentheus* WALKER

This species was the commonest parasitoid in the 2nd to 4th host generations. However, the incidence of this parasitoid was very low in the 1st host generation, and it was not reared at all in the 5th host generation.

2) *Chrysonotomyia* sp.

This species is known as a larval parasitoid of the garden pea leaf miner *Phytomyza atricornis* MEIGEN (KAMIJO, pers. comm.). Only a few specimens were reared.

3) *Cirrospilus vittatus* WALKER

Only a few specimens were reared.

4) *Pnigalio* sp. A

This species is known as larval parasitoid of the apple leaf miner *Phyllonorycter ringoniella* (MATSUMURA) (KAMIJO, pers. comm.). It was the most predominant parasitoid in the 1st and 5th host generations, but it was not reared in the 3rd to 4th host generations. Thus the seasonal occurrence of the parasitoid made a contrast to that of *C. pentheus*.

5) *Pnigalio* sp. B

Systematically, this species is closely related to *Pnigalio soemius* WALKER recorded from Europe (KAMIJO, pers. comm.). The occurrence of this parasitoid was very rare.

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### Reference

- SEKITA, N., & M. YAMADA, 1979. Life history of *Lyonetia prunifoliella* HÜBNER subsp. *malinella* (MATSUMURA) (Lepidoptera; Lyonetiidae). *Appl. Ent. Zool.*, 14: 285-292.