Aphidiinae – adult (*Aphidius avenaphis*)
Tyler Wist, AAFC

Aphidiinae

Aphidius spp.

Hosts/Prey

Over 40 species of aphids.

Aphidius avenaphis (Fitch): English grain aphid (p. 60).

A. colemani Viereck: green peach aphid (p. 61), oat-birdcherry aphid (p. 62).

A. matricariae Haliday: bean aphid, potato aphid (p. 64), pea aphid (p. 63), green peach aphid (p. 61), Russian wheat aphid (p. 65).

A. ervi Haliday: potato aphid (p. 64), pea aphid (p. 63), green peach aphid (p. 61), Sitobion spp. (p. 60), Schizaphis sp. (p. 70), *Rhodobium* spp.

A. smithi Sharma et Subba Rao: aphids (pp. 59-70).

Identification

ADULTS: 2–3 mm long, usually black colour, with pointed abdomen, long antennae, and two pair of transparent wings with reduced venation.

MATURE LARVAE: 2–3 mm long, whitish, maggot-like, and legless.

Life Cycle

Females lay their 100-350 eggs singly in young aphids using their short ovipositors. Egg to adult development occurs within the host, and takes about 2-4 weeks, depending on species and temperatures. New adults chew a hole in a mummified aphid to exit and immediately begin to search for aphid hosts. They overwinter as larvae or pupae in aphid mummies. There are three or more generations per year depending on species, food supply and temperatures.

Similar Species

Adult *Aphidius* resemble the adult midge parasitoid, *Aphidoletes aphidimyza*, except the latter has only one pair of transparent wings and its free-living 2 mm long, maggot-like orange larvae attack aphids much like syrphid fly larvae. *Aphidius* females can be confused with female Braconids except the latter have a noticeable ovipositor.

Monitoring

Examine aphid colonies for presence of tan-coloured mummified aphids, some with round holes (see Comments below).

Conservation

Preserve unsprayed flowering vegetation near fields where adults can feed on nectar and honeydew as well as attack any prey present. Adults locate aphid colonies from a long distance by "alarm signals" produced by aphid-infested plants. Such areas offer a refuge for populations which can spread into adjacent crops in the absence of harmful pesticides.

Comments

Adults feed on honeydew and flower nectar. A parasitized aphid swells up when the larva pupates inside its body, turns tan colour, and the body becomes "mummified" with parchment-like integument. A small round hole in aphid mummies is indicative of parasitism by *Aphidius* spp.

Aphidiinae – parasitized English grain aphid
Tyler Wist, AAFC

Field Crop and Forage Pests and their Natural Enemies in Western Canada:

Identification and Management



Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada
Canada

Photo Credits:
1. Pea leaf weavil (*Sitona lineatus*) and leaf damage - Jonathon Williams, AAFC
2. *Pteromalus puparum* parasitizing an imported cabbage worm cocoon (*Pieris rapae*) - T. Haye, CABI
3. Lacewing (*Chrysopa* sp.) adult - John Gavloski, Manitoba Ministry of Agriculture
4. Grasshopper - Jesse MacDonald, AAFC

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