

TACHINID PARASITES Diptera: Tachinidae *Winthemia* spp., *Myiopharus* spp.

DESCRIPTION

Adults are 6 to 14 mm long and bee-like in appearance, except that tachinids have only one pair of wings. Most tachinid parasites are dark brown or black and marked with contrasting areas of tan, red, yellow, gold, or orange. The body is covered with long bristly hairs. **Larvae** are maggot-like, white, and may be marked with bands of spines, which encircle the body segments. The mouth hooks are anterior and the spiracles are posterior and colored dark brown or black. Larvae develop within their host and are seldom seen unless the larva is dissected. **Pupae** are reddish-brown.

LIFE HISTORY

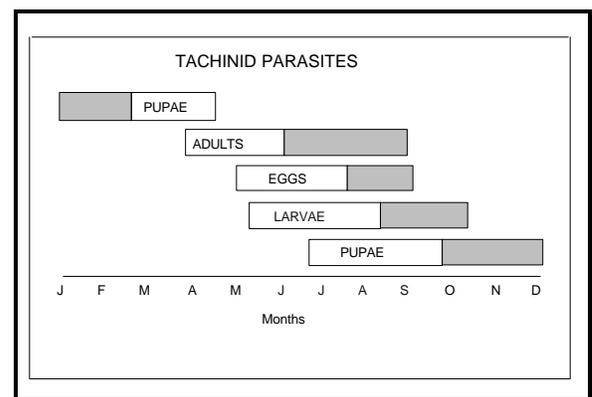
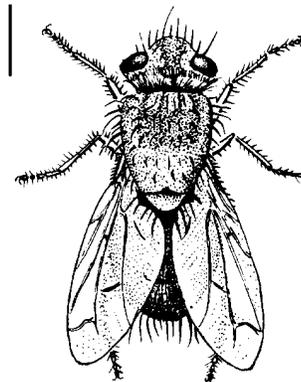
Most tachinids overwinter as pupae in the soil. Adults emerge in the spring and females deposit white eggs or first-stage larvae in or on the prey, or on foliage that will be consumed by the prey. Tachinid larvae, which hatch from eggs deposited externally, enter the body of the prey through membranous areas. Larvae attach to prey trachea and feed on internal tissues, particularly fat bodies and reproductive organs for two to three weeks depending on the species, then leave the host and pupate in the soil or in plant debris. Adults begin emerging two to three weeks later and deposit eggs for another generation. Most species are solitary, but some are gregarious with 2 to 10 maggots in a single host. There are two to three overlapping generations each year depending on the species.

IMPORTANCE

This is a large group of beneficial flies in which the larvae are parasitic on numerous destructive pests. The benefits of these parasites are difficult to estimate, but they undoubtedly play a major role in suppressing populations of many insect pests. In the northwest, tachinids are important parasites of several species of cutworms including variegated cutworm, western yellowstriped armyworm, zebra caterpillar, alfalfa looper, Colorado potato beetle and others. Tachinids also parasitize codling moth, corn earworm, tussock moth, hornworms, imported cabbageworm, grasshoppers, and plant feeding bugs. *Compsilura concinnata* was released in the northwest to control satin moth and is now commonly found parasitizing tent caterpillars.



Tachinid parasite adult and larva (below)



Myiopharus doryphorae is indigenous to the northwest and eastern U. S. potato-growing regions, and provides some control of the Colorado potato beetle late in the growing season.

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