

PUBLIC HEALTH VECTORS AND PESTS



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Common Name: Flesh fly

Scientific Name: Sarcophagidae

Size: Depending on the species, they range from 10 to 22mm in length when fully grown.

Colour: Yellowish maggots

Description: Adult - Flesh flies usually have grey bodies with three black stripes on the thorax. The abdomen has a light and dark gray checkerboard pattern and is often red at the tip. Though some species may be smaller than house flies, most flesh flies are about 10 to 13 mm long.

Larva - These near white to yellowish maggots have pointed heads. Depending on the species, they range from 10 to 22 mm in length when fully grown.

Distribution - As a group, flesh flies occur throughout most areas of the world although species distribution varies. Flesh flies are found in urban and rural communities.

Feeding Habits - Adult flies do not bite but feed on a wide range of liquid substances. Most larvae infest wounds, carrion or excrement. The larvae of some species of flesh flies are beneficial in that they prey on eggs, nymphs, or larvae of more harmful insects. Lesser house fly larvae, blow fly larvae, and grasshopper nymphs are common hosts of flesh flies.

Damage - Though they can carry leprosy bacilli, flesh flies usually are not problems as disease carriers or even as nuisances and pose little threat to human welfare or to livestock. A few cases are known in which flesh fly maggots have burrowed

from wounds into the healthy flesh of livestock, and some species can cause intestinal pseudomyiasis (infection by fly larvae) in humans who consume food contaminated with larvae.

Life History - Flesh fly life histories vary with species and location. Rarely very numerous, the flies emerge in spring and mate. Eggs are laid only under very unusual circumstances. As a rule, eggs hatch within the body of the adult. Females of most species deposit 20 to 40 larvae directly onto the host or substrate. As many as 325 larvae have been known to be born by a single female.

Flesh fly maggots feed for 3 or 4 days and develop through 3 instars. Soon afterward, these mature maggots enter the pupal stage. Adult flies emerge in 10 to 14 days and the life cycle is repeated. Several generations are produced each year.

Habitat Flesh flies are found in urban and rural communities but, fortunately, are relatively uncommon in houses or restaurants. They breed in excrement, decaying vegetable matter and animal flesh or meat.

Lifecycle - The life cycle of flesh-fly larvae has been well researched and is very predictable. Different species prefer bodies in different states of decomposition, and the specific preferences and predictable life cycle timings allows forensic entomologists to understand the progress of decomposition and enables the calculation of the time of death by back extrapolation. This is done by determining the oldest larva of each species present, measuring the ambient temperature and from these values, calculating the earliest possible

date and time for deposition of larvae. This yields an approximate time and date of death (d.o.d.) This evidence can be used in forensic entomology investigations and may assist in identification of a corpse by matching the calculated time of death with reports of missing persons. Such evidence has also been used to help identify murderers.

Disease Transmitted Flesh-flies can carry leprosy bacilli and can transmit intestinal pseudomyiasis to people who eat the flesh-fly larvae. Flesh-flies can also cause myiasis in animals, mostly to sheep, and can give them blood poisoning, or asymptomatic leprosy infections.

Type of damage - The symptoms depends on the tissue invaded, if it is in the skin, the infection starts as itchy sores then develop into painful boil-like lesions which often ooze.

Sources / breeding - Most flesh flies breed in carrion, dung, or decaying material, but a few species lay their eggs in the open wounds of mammals; hence their common name. Some flesh fly larvae are internal parasites of other insects. These larvae, commonly known as maggots, live for about 5-10 days, before descending into the soil and maturing into adulthood. At that stage, they live for 5-7 days.