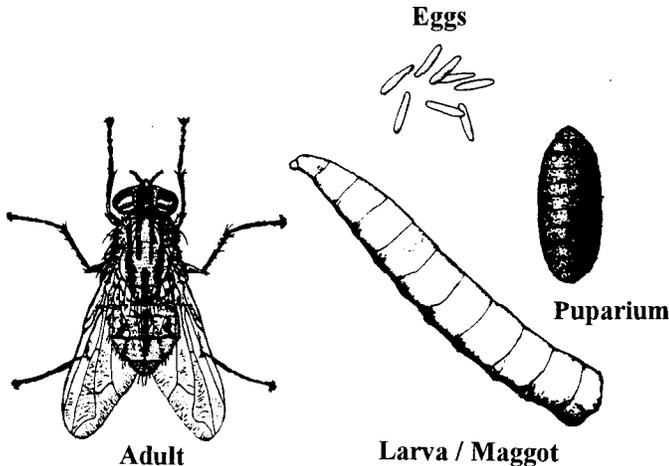


## Flies in and Around the Home

### House Flies



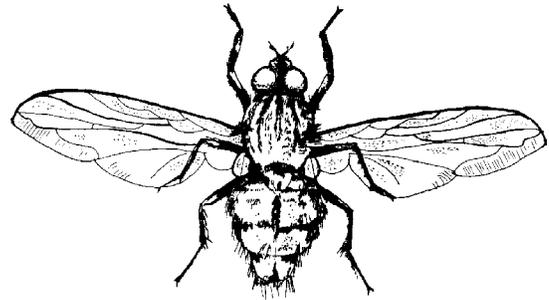
House flies are the most common fly found in and around homes. The adults are not large, 1/8-1/4" long, and dull gray. The larvae or maggots, are 1/4-3/8" long when mature. They are whitish, eyeless, legless and taper towards the front. Female flies lay eggs (<1/16" long) singly or in clusters of 20-50 (350-900/lifetime) in moist material like garbage. The larvae hatch in 8-20 hours. Maggots feed for 3-7 days. They then crawl, up to 150 feet, to cool dry areas to pupate. Pupation, the resting stage where maggots change into adults takes 3-4 days.

Food varies from excrement to human food. Adults feed only on liquid food and can mechanically transmit many disease pathogens. Female flies will seek out any warm, moist material that has sufficient food for larval development. In daylight hours, flies tend to rest less than 5 feet from the ground on walls, floors, etc. At night, they tend to rest above 5 feet near their daytime food sources.

**Control:** Locate larval breeding sites and eliminate them. This includes timely removal of trash and keeping garbage cans dry and as clean as possible. Use cans with tight fitting lids. To prevent adults from entering homes, tighten screens, windows and doors. Seal all holes and entry points. Make sure all vents are tightly screened. Adult flies can be trapped with baited fly traps or sticky fly tape. Spraying is generally not effective inside the home.

### Cluster Flies and Attic Flies

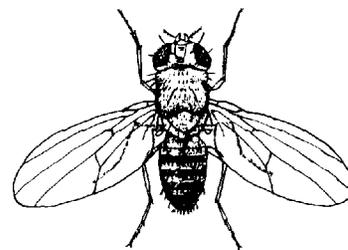
Cluster flies resemble large house flies and may suddenly appear indoors around windows or lamps in the fall, spring or winter. They often become active on warm, sunny, winter days or when heat in the home arouses them. Cluster flies are 3/8" long, dark gray, and non-metallic. They are sluggish fliers. These flies are not garbage or manure related. The larvae are actually parasites of earthworms. Adult flies usually enter homes



in late August to overwinter and occupy attics and/or wall voids that are warmed by winter sun exposure (most often southern). Other attic flies also resemble house flies but are large.

**Control:** Prevention is the best control. In summer, seal up access openings. Place tight screens over vents. Caulk or seal cracks and holes. Inside the home, swat or vacuum any flies that appear.

### Fruit Flies / Vinegar Flies



Fruit or vinegar flies are primarily pests in the kitchen area of the home. They are small (1/8"), dull tan to brownish yellow or brownish black. Their eyes are usually bright red. The larvae are whitish, 1/4" long, eyeless, legless, and taper to-

wards the head. They are seldom seen. The adult flies are attracted to over ripe fruits, vegetables and fermenting foods. They are attracted to this fermenting odor, and the immatures feed on the yeast developing in the fruit. Food sources include: bananas, grapes, peaches, pineapples, tomatoes, potatoes, etc. and fermenting liquids such as beer, cider, vinegar and wine. The female fly lays eggs on the surface of the food or fermenting liquid. Larvae develop primarily in liquids, near the surface. When mature (5-6 days) they crawl to drier areas to pupate. The entire life cycle takes 8-10 days.

**Control:** The primary control is sanitation. Eliminate larval food and development sites. Keep fruit stored in the refrigerator. Rinse and drain bottles and cans that are to be recycled. Squeeze out mops thoroughly and dry. There may be enough food and moisture to complete development on the damp mops.

### Drain Flies



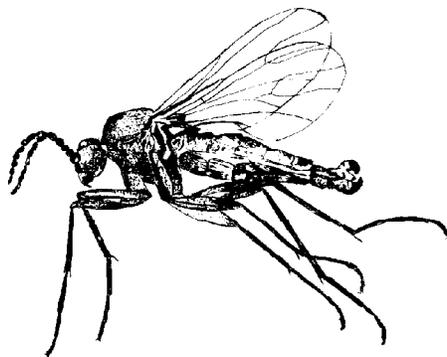
Drain flies are found primarily in rooms or areas where there are drains: kitchens, bathrooms, basements near floor drains, etc. Drain flies are small (1/16-1/4"), delicate and fuzzy. They are pale, brownish gray to black. The larvae live in the gelatinous film (slime) in drains and traps. They

feed on algae, bacteria, and fungi in the film. They may also breed in areas of sewer leaks, back-ups, dirty garbage cans, saucers under potted plants, clogged storm drains, and in condensate pans under refrigerators and air conditioners. Adult flies may live up to 2 weeks and total development time from egg to adult may take 7-28 days. Flies emerge daily once an infestation is underway.

**Control:** Clean traps and drains mechanically or with an over-the-counter drain cleaner followed by hot water. Clean or eliminate other breeding sites.

### Fungus Gnats

Fungus gnats are tiny, black flies that are commonly seen around lamps and windows. They are annoying, but harmless. The larvae breed in moist soil, primarily in potted plants containing soil rich in organic matter. Immatures feed on fungi in the moist soil. Overwatering contributes to the growth of the fungi on which the larvae feed.



**Control:** To determine if the fungus gnats are coming from a particular plant or drain, cover with screening (e.g. cheesecloth) and check the next day for evidence of the flies. If the fungus gnats are breeding in potting soil, dry it out. When the soil dries, the larvae will die. Change the watering cycle of the house plants to prevent the soil from remaining wet. If they are breeding in a drain, use a commercial drain cleaner and/or clean out the trap to eliminate the breeding site.

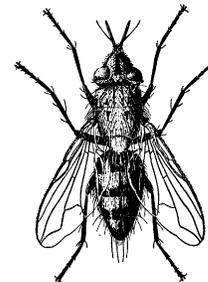
### Blow Flies, Greenbottle, and Bluebottle Flies

These flies are similar in size to house flies, but are metallic blue or green. These flies may breed in dead animals, feces and/or garbage depending on the species. If a large number of these flies are found in the house, they are usually breeding in the home or in the immediate area. Examples of breeding sites may be a dead mouse or squirrel in the attic, or a dead bird in the chimney. The green bottle flies may be commonly seen on pet feces outdoors.



**Control:** The life cycle is very short (2-4 weeks). So, as with the house flies, it is important to locate and eliminate the larval breeding site. This may involve timely removal of pet waste from the yard, locating a dead animal or cleaning up garbage cans. Adult control is the same as for house flies.

### Flesh Flies



Flesh flies are 2 to 3 times larger than house flies (over 1/3"), gray with 3 dark stripes on the body, a gray and black checkerboard pattern on the abdomen, and red eyes. Most species of flesh flies are scavengers and may breed in garbage, manure or animal carcasses. A few species are parasites of caterpillars. Flesh flies are common in populated areas but seldom enter houses in large numbers. If flesh flies become a nuisance, control is the same as for blow and bottle flies.

## Miscellaneous Small Flies



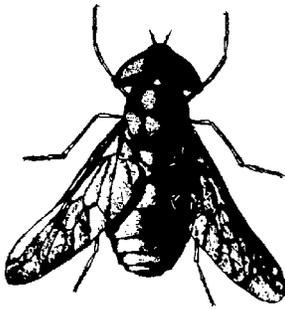
**Phorid Fly**

There are several species of small black flies that may occasionally become pests in buildings. They may include Phorid flies which breed in decaying organic matter of plant or animal origin, and March flies which breed in decaying organic matter. Extremely large numbers of Phorid flies on the first floor of a structure may indicate a broken drain or sewer line under the structure. Removal or drying of the organic matter where the larvae live will eliminate the problem.

### **CONTROL TIP FOR ADULT FLIES**

For any of the above flies a pyrethrum spray may be used to control large number of adults in a confined space. Long term control depends on elimination of breeding sites.

## Horse and Deer Flies



Horse flies are medium to large, heavy-bodied flies. The eyes are often brightly colored or iridescent. Only the females are blood sucking and inflict a painful bite. Males feed primarily on pollen and nectar and are often found on flowers. Females deposit eggs on plants, rocks or other objects, usually in damp locations. The larvae occur in mud and at the bottom of ponds and ditches. Many are predaceous on immature insects and other small animals. Larvae pupate in the mud near the edge of these areas. The life cycle may take from 3 months to 2 years to complete.

Adult flies are generally found near swamps, marshes, ponds and other areas where the larvae occur. Most are strong fliers and have a range up to several miles. They are most active during the warmest parts of the day and often follow moving objects.

Control is generally not feasible due to the habits of these flies. Insect repellents may be effective in preventing bites by the females.

### **ALWAYS READ THE PESTICIDE LABEL AND FOLLOW ALL DIRECTIONS AND SAFETY PRECAUTIONS.**

**Author: Mary Kay Malinoski, Regional Specialist, Home & Garden Information Center, University of Maryland Cooperative Extension, Ellicott City, MD.**

#### **References:**

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Olkowski, W., S. Daar, and H. Olkowski. 1991. *Common Sense Pest Control*. Newtown, CT: The Taunton Press. 715 pp.

Artwork: Cluster fly by Raymond V. Bosmans. Fruit fly, house fly and drain fly redrawn from *Handbook of Pest Control* by A. Mallis. Black Horse Fly redrawn from *An Introduction to the Study of Insects* by D.J. Borror, D.M. DeLong and C.A. Triplehorn. Life cycle of house fly redrawn from *Destructive and Useful Insects* by R.L. Metcalf and R.A. Metcalf.

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