



Drain Flies or Moth Flies

Family: Psychodidae



Size: less than 1/4 inch.



Adult Drain fly.

Photo by Joseph Berger; from
<http://Bugwood.org>



Two larvae (>1 cm, about 1/3 inch long)
and a pupa (half that size).

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Injury

Drain flies, also called filter flies, moth flies, and sewage gnats, are nuisance pests. We are most concerned with these flies when they appear in our houses or buildings, creating annoyance. The larvae feed on moist decaying organic matter, bacteria, algae, and fungi. The muck of gelatinous material that accumulates on the sides of drains and overflow pipes in houses may provide suitable breeding sites. Some species are able to survive hot water and soap.

Where they are a problem, the adult flies may be seen resting on walls in kitchens, bathrooms and basements. Usually only a few are present at any one time; some die off, and others emerge, but occasionally, they may occur in large numbers.

Description

The adults are small, thickly haired, broad-bodied flies, usually less than 5 mm (1/4 inch) in length. The wings are often clothed with hairs or scales, giving the flies a "fuzzy" appearance. Wings are held roof-like or tent-like over the body when at rest. They are not strong fliers and often move by crawling on the walls or other surfaces. When they do fly, they move only a few feet at a time and fly in a jerky line. The adults may be attracted to lights at night. Outdoors, these flies are common in shady places in the vicinity of water, and they are often found in large numbers on dense foliage in swampland.

Life History

Drain flies may go through the life cycle in 1 to 3 weeks, and the adults can live for about 2 weeks after emerging. Eggs are laid in irregular masses in such places as water traps in plumbing fixtures, around built in sinks, garbage disposals, or anywhere moist decaying organic matter occurs. The larvae and pupae are aquatic or semi-aquatic, living in the decomposing film of organic matter.

Management

Management of these flies in homes depends on the elimination of the breeding areas. You need first to try and determine where the flies are coming from. One suggestion to monitor for flies coming up through drains is to tape a plastic bag loosely over the drain and vent hole of the sink, at night when the sink will not be used for a

period of time. Check the bag in the morning to see if flies are present. If flies are present it is an indication that they are breeding in the pipes or trap of that sink. You may have to repeat this process a few times, or even leave bags for longer periods of time if the source cannot be easily discovered. Alternatives to plastic bags include a clear plastic cup or jar, smeared inside with vaseline to which flies will get stuck, set over the drain; or, a wide piece of clear packing tape could be attached, sticky side down, to the drain and overflow openings.

If the sink does not seem to be the problem, you need to look for other breeding sites. Check any places where moist organic matter might accumulate. Check mop buckets, mops themselves, trays under refrigerators to catch drips, and other similar places. Look for presence of flies in the area, and for larvae in the organic matter. Clean up any sources of moist organic matter, and keep the area dry.

On occasion, the presence of drain flies indoors indicates a leak in a drain pipe. If no other sources are found, you may want to have your drainage system checked, and if there are leaks, have them repaired. Flies may continue to breed in soil that has been contaminated by organic matter for a long time, months, or even years. Soil removal and replacement is one option but may not be practical, and could be quite costly.

Other options include discovering how they are getting into the home, and closing these openings. Sealing cracks in basement floors, around pipes with appropriate caulking or sealing material can help to block entry points. If the flies are coming from a crawl space, plastic sheeting installed to provide a moisture barrier may be an option.

If they are breeding indoors in drains, removal of the scum in pipes and the sediment in draintraps is the first step in control. A stiff brush and sink cleaner may be used to scrub (loosen the gelatinous muck) the insides of pipes all the way to the trap. If draintraps are not holding water, they need to be repaired. Although caustic drain cleaners followed a day later by very hot water have been recommended in the past, they can be damaging to the environment and hazardous to use. Bleach is not effective in killing all larvae. Instead, there are more environmentally-friendly drain cleaners commercially available that are blends of bacterial cultures and free enzymes in an active stabilization medium, which can be used to prevent, reduce, or eliminate drain fly infestation by removing the food sources that promote drain fly development -- in combination with physically scraping/brushing off the insides of pipe below the sink or tub drain.

Where adults are a problem, a fly swatter may be the most useful tool. If the adult flies are coming in from out of doors, screening may need tightening or repair. If moist organic matter (including piles of leaves) occurs outdoors in window wells or near windows or doors (a possible breeding site), it should be removed, and efforts to dry out the area should be made. Unless breeding sites are cleaned up adults will continue to emerge.

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Updated July 2013, January 2016.*

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