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Blow Flies

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Description

Adult blow flies are typically medium to large, robust flies. They vary in length, with the largest species measuring about 16 mm (0.6 inches) long. Adult blow flies can be green, blue, or black with metallic reflections (Fig. 1, 2). Some species have conspicuous bristles. All adults have large, noticeable reddish-brown eyes. The wings are transparent and held flat over the back at rest. Adults often cluster in the sun on warm sides of buildings, outcroppings, fences, and other prominent structures. They are sometimes found visiting flowers and feeding on nectar.

Figure 1. Adult blue blowfly (Gary Alpert, Harvard University, Bugwood.org).

Blow fly larvae (maggots) are yellowish-white with a tapered head and no head capsule. The body is elongated and broadest at the end of the blunt, flattened abdomen. They are found in fresh carrion, dung, garbage, and rotting organic matter, sometimes in startlingly large numbers. Homeowners may discover blow flies in the home when mature maggots leave their food source to pupate or when large numbers of buzzing adults appear unexpectedly. Often these maggots have fed on the fresh corpse of a mouse or bird without the homeowner even knowing an animal had died in the wall void or chimney.

Life Cycle

Blow flies have a complete life cycle consisting of an egg, larval, pupal, and adult stages. Blow fly eggs are elongated, yellowish-white ovals about 1 mm (0.04 inch) long. Adult females may lay 100-200 eggs in a cluster on a food source. Eggs hatch quickly into maggots, which grow and molt three times before reaching maturity. Larval development may progress rapidly at warmer temperatures. Mature maggots may range in size from 10-20 mm (0.4-0.8 inch) depending on the species, and they migrate from the food source in search of dry soil before pupating. Pupae resemble elongated oval capsules with a tough brown skin. Adult flies emerge from the soil to find mates and lay more eggs. Multiple generations occur each year, limited primarily by cold temperatures and availability of suitable food sources.

Damage

Adult blow flies do not bite humans or animals. Like other members of the group of flies collectively known as “filth flies,” adult blow flies feed on liquids from rotting garbage, carrion, and dung. They can transfer the disease organisms responsible for dysentery, salmonella, and food-borne illnesses from filth to fresh foods intended for human consumption if they have access to them. Some species are opportunistic parasites, with their larvae developing in open wounds. Despite the unpleasant nature of the life cycle of the blow fly, these flies perform an invaluable service in nature by rapidly consuming decaying organic waste.

Habitat and Distribution

Cosmopolitan; blow flies can be found everywhere in association with human habitation as well as in the wild.

Control

Sanitation is extremely important in controlling filth flies. Remove garbage and animal waste in a timely manner using garbage bags and a garbage can with a tight-sealing lid. Dead animals should be disposed of properly soon after death. Maggots infesting garbage cans can be killed cheaply and organically with boiling water. Limit the entry of flies into homes by installing good window and door screens with a tight fit. Inside the home, use a fly swatter or an aerosol spray to kill flies when present. Do not contaminate foods or eating utensils with insecticides. Cover fresh food or place in a sealed container to prevent contamination. Outside the home, do not allow garbage to accumulate and promptly clean up any spills. Use insecticides with residual formulations to treat the walls adjacent to dumpsters or other fly breeding sites. Light traps may be useful outdoors, but they may also attract flies from a broader area.

Note

The common name “blow fly” refers to the fly’s behavior of laying eggs on fresh meat, which was then said to be “fly blown.” Some species of blow flies are also called bluebottle (*Calliphora* spp.), or greenbottle (*Lucilia* spp.) flies because of their brilliant colors as adults (Fig. 2).

Figure 2. Greenbottle fly (David Cappaert, Bugwood.org).

Revised

Patricia L.S. Wooden, June 30, 2026.

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