

Flies!

Flies! Yuk! Who needs 'em! Well....

Flies are classified as an order called Diptera, which is divided into two suborders (although one suborder is non-monophyletic), with about 110 families divided between them; the families contain an estimated 1,000,000 species, including the familiar housefly, horse-fly, crane fly, and hoverfly; although only about 125,000 species have a species description published. The earliest fly fossils found so far are from the Triassic, about 240 million years ago; phylogenetic analysis suggests that flies originated in the Permian, about 260 million years ago.

Flies are of considerable ecological and human importance. They are important pollinators, second only to the bees and their Hymenopteran relatives. They may have been responsible for the first plant pollination in the Triassic. Mosquitoes are vectors for malaria, dengue, West Nile fever, yellow fever, encephalitis, and other infectious diseases; and houseflies, commensally with humans all over the world, spread food-borne illnesses. Flies can be annoyances, especially in some parts of the world where they can occur in large numbers, buzzing and settling on the skin or eyes to bite or seek fluids. Larger flies such as tsetse flies and screwworms cause significant economic harm to cattle. Blowfly larvae, known as gnatheads, known more generally as maggots, are used as fishing bait, as food for carnivorous animals, and in medicine for debridement to clean wounds. Fruit flies are used as model organisms in research.

In culture, the subject of flies appears in religion, literature, cinema, and music. Some 2,700 years ago



Homer wrote of "the courage of a fly" (in that it keeps coming back no matter how many times you bat it away). Indeed, flies have appeared in literature since ancient Sumer. In a Sumerian poem, a fly helps the goddess Inanna when her husband Dumuzid is being chased by galla demons. Later, the gods are said to swarm "like flies" around the hero Utnapishtim's offering. Flies appear on Old Babylonian seals as symbols of Nergal, the god of death. Fly-shaped lapis lazuli beads were often worn in ancient Mesopotamia, along with other kinds of fly-jewelry.

In *Prometheus Bound*, which is attributed to the Athenian tragic playwright Aeschylus, a gadfly sent by Zeus's wife Hera pursues and torments his mistress Io, who has been transformed into a cow and is watched constantly by the hundred eyes of the herdsman Argus: William Shakespeare, inspired by Aeschylus, has Tom O'Bedlam in *King Lear*, "Whom the foul fiend hath led through fire and through flame, through ford and whirlpool, o'er bog and quagmire", driven mad by the constant pursuit. In *Antony and Cleopatra*, Shakespeare similarly likens Cleopatra's hasty departure from the Actium battlefield to that of a cow chased by a gadfly. More recently, in 1962 the biologist Vincent Dethier wrote *To Know a Fly*, introducing the general reader to the behavior and physiology of the fly.

[<https://en.wikipedia.org/wiki/Fly#Literature>]

