

**DIPTERA DROSOPHILIDAE**

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About 100 species of Drosophilidae are known in the Western Palearctic and more than 30 in Italy. About half of them belong to the very large genus *Drosophila*. They are attracted by damaged fruit, fermenting substances, slime flux of wounded trees, fungi, etc. Their larvae feed on various microorganisms occurring there. Large numbers of flies can be collected, e.g. using fermenting fruit as bait.

Worldwide, most of the known drosophilid species are "wild species", being more or less restricted to non-human habitats. About 25 species, however, are found in or near human habitations, including houses, gardens, and garbage dumps, therefore they are called "domestic species". Many of them occur in several faunal realms or are cosmopolitan.

Among the species listed below, *Drosophila busckii*, *D. funebris*, *D. immigrans*, *D. repleta*, *D. melanogaster*, and *D. simulans* are domestic species. Some may be found on feces, stables, and barns and might become vectors of dangerous microorganisms. Some may produce large populations in wine cellars, fruit stores, and breweries, and may become a nuisance to men. Usually, such species are of

no economic importance. As vectors of yeasts, however, certain species may be important as a prerequisite to wine production.

*D. melanogaster* and some other species can easily be cultured, and their ability to produce large numbers of offspring, their short time of development, the favorable conditions for the analysis of the banding pattern of the larval salivary chromosomes, and several other factors are well-known. They became the most important laboratory animals, used for a variety of scientific research, e.g. genetics, physiology, behavior, cytology.

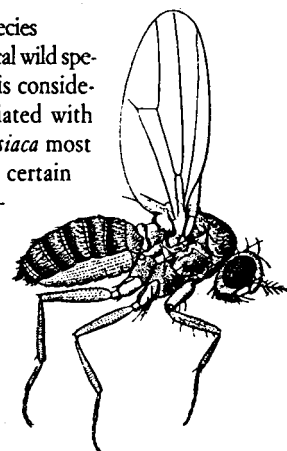
Of the domestic species already found in Italy, only *D. hydei* Sturtevant is missing. This seems to be a result of insufficient sampling.

*D. subobscura*, primarily a wild species, is often found in domestic habitats. This mainly Western Palearctic species which is also recorded in Western China, the most eastern area known to date, has recently been introduced in Chile and Argentina as well as in British Columbia and California (Prevosti et al., 1989), proving its ability to easily spread out into new areas.

The other species of the list are typical wild species. *D. limbata* is considered to be associated with fungi, *L. andalusiaca* most probably with certain plants. *A. variegata* has often been recorded to fly around human eyes, sometimes becoming nasty. All these wild species are present in public parks and smaller or larger woodland areas.

*S. pallida*, with larvae mainly living on decaying plant substances, and *S. flava* and *S. graminum* with leaf mining larvae, are very widely distributed and mainly found in grassland areas.

Some ten additional wild species could be recorded in urban woodland areas by suitable collection methods.



*Drosophila (Drosophila) funebris (Fabricius, 1787)*  
(from Grandi, 1951).

ABBREVIATIONS. MZUR = Museo di Zoologia, Università "La Sapienza", Roma; MSNM = Museo civico di Storia naturale, Milano; MSNV = Museo civico di Storia naturale, Verona; ZMB = Zoologisches Museum, Berlin.

1 - *Amiota (Phortica) variegata* (Fallén, 1823)

(076.004.0.002.0)

Roma (MZUR).

2 - *Drosophila (Dorsilopa) busckii* Coquillett, 1901

(076.011.0.001.0)

Pietralata (MZUR).

3 - *Drosophila (Drosophila) funebris* (Fabricius, 1787) (076.012.0.003.0)

Roma (Di Girolamo & Mancini, 1987): 1940; Pietralata (MZUR).

4 - *Drosophila (Drosophila) immigrans* Sturtevant, 1921 (076.012.0.006.0)

Roma (MZUR, MSNV).

5 - *Drosophila (Drosophila) limbata* von Roser, 1840

(076.012.0.008.0)

Roma, Pietralata (MZUR).

6 - *Drosophila (Drosophila) repleta* Wollaston, 1858 (076.012.0.011.0)

Roma (MZUR).

7 - *Drosophila (Sophophora) melanogaster* Meigen, 1830 (076.013.0.004.0)

Roma (MZUR; MSNM; ZMB; Dävring, 1969; Bächli, 1988); Roma (Di Girolamo e Mancini, 1987): 1938, 1941 (MZUR).

- 8 - *Drosophila (Sophophora) simulans* Sturtevant, 1919 (076.013.0.006.0)  
Roma (MZUR; Schilcher & Manning, 1975).
- 9 - *Drosophila (Sophophora) subobscura* Collin, 1936 (076.013.0.007.0)  
Ponte Mammolo, Pietralata (MZUR).
- 10 - *Lordiphosa andalusica* (Strobl, 1906) (076.016.0.002.0)  
Roma, Pietralata (MZUR).
- 11 - *Scaptomyza (Parascaptomyza) pallida* (Zetterstedt, 1847) (076.018.0.001.0)  
Ponte Mammolo, Portonaccio, Pietralata (MZUR).
- 12 - *Scaptomyza (Scaptomyza) graminum* (Fallén, 1823) (076.019.0.002.0)  
Ponte Mammolo, Portonaccio (MZUR).

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