



# Genus: *Helophilus*



*Helophilus pendulus* male habitus

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**Genus:** *Helophilus* Fabricius, 1805

**Family:** Syrphidae

**Subfamily:** Eristalinae

**Tribe:** Eristalini

**Number of species of this genus found in Europe:** 8

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## Description

### Head

The face is concave below the antennal insertion and then almost straight in the ventral 1/2, with an ill-defined facial tubercle and a medial shiny stripe. The head is dichoptic in both sexes and the eyes are bare. The antenna is short, with a sub-basal bare arista. The third antennal segment is roundish, almost as long as broad.

### Thorax

The scutum is matt black, dull with four longitudinal stripes of yellow dust, two of which are submedial with the other two along the lateral margins. The scutellum is yellow. The metasternum has hairs. The plumule and the spiracular fringes are yellow. The haltere and calypters are yellow.

### Wings

The wing membrane is entirely microtrichose and hyaline, except for the pterostigma which is pale yellow. The alula is microtrichose.

### Legs

The front and mid legs are simple, without modifications. The hind leg femur is swollen. The hind leg tibia has a ventral carina on the basal 1/2 with small black setae and has the inner side of the apical end pointed like a spine.

### Abdomen

The tergites and sternites are sub-shiny, black with white-dusted and yellow markings.



*Helophilus affinis* male habitus



*Helophilus bottnicus* female head  
lateral



*Helophilus pendulus* hind leg

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## General comments on identification to species level

### Differential diagnosis

*Helophilus* species have short antennae (shorter than face) with a subbasal arista, eyes dichoptic in males and females, longitudinal grey-dusted stripes on the scutum, wing vein  $R_{4+5}$  strongly looped into cell  $r_{4+5}$ , wing cell  $r_1$  open at the wing margin, and yellow or/and grey-dusted spots on the abdominal tergites.

*Helophilus* is similar to several other genera with a similar wing venation and longitudinal grey-dusted strips on the scutum. It differs from *Anasimyia* and *Parhelophilus* by having an elongate pterostigma which is longer than broad whereas in *Anasimyia* and *Parhelophilus* the pterostigma is very short, simulating a crossvein. In

addition, the face has a medial bare stripe whereas the face is medially dusted in *Anasimyia* and *Parhelophilus*. *Helophilus* can be separated from *Lejops vittatus* by the shape and orientation of the grey-dusted spots on the abdominal tergites which are transversal in *Helophilus* but completely longitudinal in *Lejops*. Moreover, the yellow markings on the tergites are much larger in *Helophilus* whereas they are limited to the lateral margins in *Lejops*.

*Mesembrius peregrinus* has the katepimeron hairy and the hind leg basitarsus with globuliferous hairs basoventrally, whereas *Helophilus* species have the katepimeron bare and no such globuliferous hairs on the hind leg basitarsus.

*Eurimyia lineata* differs from *Helophilus* species by having the face conically produced, narrowing apically almost to a point, whereas in *Helophilus* the face is not produced apically.



*Mesembrius peregrinus* hind leg  
basitarsus lateral



*Eurimyia lineata* head lateral



*Parhelophilus versicolor* male habitus

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# Geographical distribution and global diversity

There are eight *Helophilus* species in Europe, and northern European countries host more species than southern countries. World-wide over 30 species of *Helophilus* are known distributed in the Palaearctic, Nearctic (11), Oriental (1) and Australasian (11), although the Oriental and Australasian elements are often assigned to another genus or subgenus.

## Presence in Europe

Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation - European Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

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## Biology

Adults occur from April to October, but also in March in southern Europe and stragglers have been recorded on into November. The preferred habitat of this genus is a variety of wetlands, including some synanthropic habitats like ditches in farmlands or manure.

The known larvae of this genus are long-tailed, aquatic and saprophagous, developing on decaying organic matter.



**Type species:** *Musca pendula* Linnaeus, 1758

**Common names:**

FI - helosurrit;

SV - kärrblomflugor;

NB - solfluer

## List of species found in Europe:

1. *Helophilus affinis* Wahlberg, 1844
2. *Helophilus bottnicus* Wahlberg, 1844
3. *Helophilus continuus* Loew, 1854
4. *Helophilus groenlandicus* (Fabricius, 1780)
5. *Helophilus hybridus* Loew, 1846
6. *Helophilus lapponicus* Wahlberg, 1844
7. *Helophilus pendulus* (Linnaeus, 1758)
8. *Helophilus trivittatus* (Fabricius, 1805)

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## Attributions

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