Pollinator Academy

Genus: *Eristalis*

Eristalis tenax male habitus (© Sander Bot, licensed to the EU under CC-BY-NC 4.0)

Genus: *Eristalis* Latreille, 1804

Family: Syrphidae

Subfamily: Eristalinae

Tribe: Eristalini

Number of species of this genus found in Europe: 21

Eristalis jugorum male habitus (© Sander Bot, licensed to the EU under CC-BY-NC 4.0)

Description

Head

The arista is placed dorsal and covered with hairs of various length, the antenna is in most species brown to blackish. The eyes are unicolored and covered with hairs. The face with a facial knob, yellow or black in ground colour, usually covered with dust except often there is a shiny medial stripe of various widths.

Thorax

Mainly brown or black. In some species the thorax is covered with very long dense hairs which makes them resemble bumblebees, while in most species the hairs are much shorter and sparser. The metasternum is hairy.

Wings

Vein R_{4+5} is sinuate; cell R_1 is closed; the length of the pterostigma varies.

Legs

The colour of the legs varies from completely black to dark brown to partly yellow or orange.

Abdomen

Black, with a pair of yellow maculae at least on tergite 2. In some species the tergites are covered with very long dense hairs, making them resemble bumblebees, while in most species the hairs are much shorter and sparser.

Male genitalia

The surstylus varies from narrow to broad, the ventral margin can be with a subapical lobe-like projection or strongly incised, and the apex can be turned backward. The shape of the paramere varies from rounded to sickle-shaped, its apex smooth or slightly serrate, and its ventral margin with two tooth-like projections in some species, while its apicodorsal margin is curved with a pointed apex. The aedeagal lobe varies from curved to straight, short to longer, and in some species with an enlarged dorsal part.

General comments on identification to species level

Differential diagnosis

The genus *Eristalis* comprises robust hoverflies, 8-16 mm long, often very similar to honeybees and solitary bees, while other species mimic bumblebees (*E. fratercula, E. oestracea, E. intricaria and E. anthophorina*). Their appearance most closely resembles the genus *Eristalinus*, from which they are easily distinguished based on the eyes: in *Eristalis* the eyes are unicolored, while in *Eristalinus* the eyes have spots or stripes.

Eristalinus taeniops male habitus

Eristalinus aeneus male habitus

Geographical distribution and global diversity

The genus is most common in the Palaearctic Region, but has representatives in all biogeographical regions. 20 species occur in Europe. *Eristalis tenax* is a cosmopolitan species.

Presence in Europe

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

Biology

Adult behaviour and flower preferences. Eristalis species are most often met in humid biotopes, but may fly some distance in search of attractive flowers. The adults can be found everywhere and many are common garden visitors. A limited number have quite specific habitat preferences and restricted distributions, for example Eristalis cryptarum, which occurs in bogs.

Reproduction and larval biology. The larvae are known as «rat-tailed maggots», as they have an extendable long breathing tube which enables them to feed on decaying organic matter whilst submerged in stagnant water or mud. The larvae of Eristalis are detritivorus and bacteria-eating filter feeders, living in aquatic or semi-aquatic conditions, including liquified faeces.

Seasonal life cycle. The number of generations varies from one to more than two. The flight period is during all year round, and some species are recorded as migratory.

Type species: *Musca tenax* Linnaeus, 1758

NOR - dronefluer;
SWE - slamflugor;
FIN - aitosurrit;
ENG - drone flies

List of species found in Europe:

1. *Eristalis abusiva* Collin, 1931
2. *Eristalis alpina* (Panzer, 1798)
3. *Eristalis anthophorina* (Fallén, 1817)
4. *Eristalis arbustorum* (Linnaeus, 1758)
5. *Eristalis cryptarum (*Fabricius, 1794)
6. *Eristalis fratercula* (Zetterstedt, 1838)
7. *Eristalis gomojunovae* Violovitsh, 1977
8. *Eristalis hirta* Loew, 1932
9. *Eristalis horticola* (De Geer, 1776)
10. *Eristalis intricaria* (Linnaeus, 1758)
11. *Eristalis jugorum* Egger, 1858
12. *Eristalis nemorum* (Linnaeus, 1758)
13. *Eristalis obscura* Loew, 1866
14. *Eristalis oestracea* (Linnaeus, 1758)
15. *Eristalis pertinax* (Scopoli, 1763)
16. *Eristalis picea* (Fallén, 1817)
17. *Eristalis rossica* Stackelberg, 1958

18. *Eristalis rupium* Fabricius, 1805
19. *Eristalis similis* (Fallén, 1817)
20. *Eristalis tecta* Vujić, Radenkovic, Nielsen & Simic, 2004
21. *Eristalis tenax* (Linnaeus, 1758)

References

Hippa, H., Nielsen, T.R. & Steenis, J. v. (2001). The West Palaearctic species of the genus *Eristalis Latreille* (Diptera, Syrphidae). *Norw. J. Entomol.*, 48: 289-327.

Speight, M.C.D. (2020). Species accounts of European Syrphidae, 2020. Syrph the Net, the database of European Syrphidae (Diptera). *Syrph the Net publications*, Dublin 104: 1-314.

van Veen, M.P. (2004). *Hoverflies of northwest Europe: identification keys to the Syrphidae.* KNNV Publishing, Utrecht, The Netherlands, 254 pp.

Attributions

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