Pollinator Academy

Genus: *Ceriana*

Ceriana conopsoides habitus

(© Sander Bot)

Genus: *Ceriana* Rafinesque, 1815

Family:

Syrphidae

Subfamily:

Eristalinae

Tribe:

Cerioidini

Number of species of this genus found in Europe: 3

Description

The genus consists of black and yellow species that are virtually hairless and resemble potter wasps. The head has a long, black antennifer and long black antennae. The occiput is at least partly yellow. The lateral sides of the thorax have yellow spots, and the scutellum is at least partly yellow. The wing has a dark anterior margin and the abdomen has three yellow bands, one each on tergites 2, 3 and 4.

Head

The antennifer is much longer than wide at its base. The face has a very short paraface, a small anterior tentorial pit, and a more or less conspicuous tubercle. The eyes are bare.

Thorax

The hairs on the thorax and abdomen are short. The postpronotum is hairy. The basisternum is rectangular and narrow, with a straight dorsal margin and the ventral margin has two large triangular extensions. The anepisternum and anepimeron are fused together. The postmetacoxal bridge is incomplete.

Wings

The anterior margin of the wing is darkened, brown. Vein r-m is placed in the apical 1/3 of cell dm; vein R_{4+5} has a v-shaped loop into cell r_{4+5} and an appendix down into cell r_{4+5}; cell r_1 is open. The dorsal lobe of the calypter has a fringe of short and sparse hairs.

Legs

The front coxa is broad and is about as wide as long, with a clearly demarcated groove along its entire dorsal surface.

Abdomen

The abdomen is elongated and only slightly petiolate. The lateral tubercle of tergite I is clearly demarcated, large and yellow. The lateral tubercle of the metapostnotum is strongly sclerotized and large and ranges from entirely black to entirely yellow. The posterior margin of the terga is elevated in lateral view. The hypopygium is covered in white hairs.

General comments on identification to species level

Differential diagnosis

The genus *Ceriana* lies within the sub-family Eristalinae and the tribe Cerioidini, together with *Primocerioides* and *Sphiximorpha*. This arrangement is based on the hairy postpronotum; the hairy metasternum; the antenna with a terminal arista; crossvein r-m oblique and placed beyond the middle of cell dm and the lack of spines on the base of the femora.

Ceriana is further differentiated from *Primocerioides* and *Sphiximorpha* by the following characteristics: the antennifer is long, much longer than the scape of the antenna, in *Primocerioides* and *Sphiximorpha* the antennifer is almost absent; the eyes are bare, as in *Sphiximorpha*, while they are hairy in *Primocerioides*; abdominal tergite 2 is wider than long and is not constricted as in *Primocerioides*, whilst in *Sphiximorpha* tergite 2 is longer than wide and is clearly constricted.

Ceriana glaebosa female head lateral

Primocerioides regale male habitus

Sphiximorpha subsessilis male habitus

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Geographical distribution and global diversity

A north temperate, predominantly Old-World genus, with 66 described species, that also occurs in the Afrotropical and Neotropical Regions. (Ssymank et al. 2021).

In the Western Palearctic there are about 9 species of *Ceriana* known, of which 3 species occur in Europe.

Presence in Europe

Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Gibraltar, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation - European Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine.

Biology

Adult behaviour and flower preferences. Habitat: deciduous forest; riparian *Fraxinus*|*Populus* forest; *Quercus*|*Ulmus*|*Carpinus* forest and thermophilous *Quercus* forest and evergreen oak with overmature trees. Also, in *Tamarix* forest. One species is known from herb-rich, open land with patches of scrub and scattered *Cupressus* and *Eucalyptus* plantations

Adults are usually fast-flying through more open areas of Mediterranean scrub vegetation at heights up to 3m. Adults settle on bare ground and on path side shrubs and other vegetation. They also visit the margins of forest streams to drink, in dappled sunlight. Malaise trap catches in the canopy suggest some species are largely arboreal as an adult.

Adult females have been found on sap runs on the trunk of old, live *Aesculus* and *Populus*; they may also be observed investigating open trunk cavities in the sun, and have been seen investigating holes in rotten parts of an ancient, live *Quercus pubescens*.

Adults visit the flowers of various umbellifers, but also *Crataegus, Cirsium, Dianthus, Euonymus, Euphorbia, Ligustrum, Physocarpus, Rubus fruticosus* and *Sorbus aucuparia*. Also found on flowers of *Ammi majus*, *Foeniculum, Mentha pulegium* and *Thapsia villosa*.

Reproduction and larval biology. Larva of *C. conopsoides* have been found in sap runs and damp tree-holes of deciduous trees, notably *Populus* and *Ulmus*. *Populus tremula* and a burnt, but still living *Betula* tree, are named as possible larval habitat, suggesting *C. conopsoides* may be associated with these trees. An adult female has also been seen investigating the trunk of an old, living *Quercus pubescens*, apparently searching for oviposition sites. Furthermore, larvae found in "decaying roots of a live *Fraxinus aungustifolius* tree" are figured and described by Rotheray et al (2006).

Seasonal life cycle. The flight season ranges from May to September. With each species differing from one-another. In the southern parts of Europe, they might be bivoltine. Speigth 2020

Type species: n. n. for *Ceria* Fabricius, type species for *Ceria* is *Ceria clavicornis* Weber, 1795 = *Musca conopsoides* Linnaeus, 1758

Common names:
NB - hornblomsterfluer;
SV - griffelblomflugor

List of species found in Europe:

1. *Ceriana conopsoides* (Linnaeus, 1758)

2. *Ceriana glaebosa* van Steenis & Ricarte in van Steenis et al, 2016

3. *Ceriana vespiformis* (Latreille, 1809)

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Taxo-Fly Pollinator Academy Funded by the European Commission