Pollinator Academy

Genus: *Portevinia*

Portevinia maculata male habitus

(© Sander Bot)

Genus: *Portevinia* Goffe, 1944

Family:

Syrphidae

Subfamily:

Eristalinae

Tribe:

Rhingiini

Number of species of this genus found in Europe: 1

Description

Head

The face is predominantly black and sparsely greyish dusted except for a short, shiny medial stripe on the lower 1/3 of the face. There is no clearly demarcated facial tubercle but the lower half of the face is strongly produced anteriorly. The eyes are bare and, in the male, almost touch over a short distance, but are widely separated in the female. The frons is dusted, with the exception of the big shiny black lunule. The paraface is wide and heavily dusted and hairy. The antennae are short with a bright orange basoflagellomere that is higher than long. The scapus and the pedicel are darker and more brown-orange in colour.

Thorax

The scutum is black, weakly shining and has rather long and light-yellow hairs. The scutellum has hairs and black bristles along the posterior margin.

Wings

The wing is slightly brownish infuscated with a yellowish pterostigma. Crossvein r-m is placed on the basal 1/3 of cell dm, vein R_{4+5} is straight and cell r_1 is open. The halteres are yellowish brown.

Legs

The legs are simple, and are predominantly black with the knees and the ventral side of the tarsi sometimes slightly yellow-brown. The femora are not swollen and are only slightly thicker than the tibiae.

Abdomen

The abdomen is dull, black and has grey dusting. Tergites 2-4 have pairs of triangular to square shaped grey spots.

General comments on identification to species level

Differential diagnosis

A single species (*Portevinia maculata*) represents this genus in Europe. It is stout and predominantly black. The face protrudes anteriorly, and lacks a facial tubercle. The eyes are bare. The antenna is short with a rounded basoflagellomere and a bare arista is bare. The parafacia are wide and with long hairs. The thorax is black with predominantly yellow hairs. The legs are slender and predominantly black with at most the knees narrowly dark-yellow. The wing has a slight brown tinge and a yellow mark medially. The abdomen is dull and black with large grey-dust markings on tergites 2-4, these are more obvious in males than females.

This genus belongs to the tribe Rhingiini together with e.g. *Cheilosia*, *Ischyroptera, Psarus* and *Rhingia* based on the frons lacking an antennifer (with the exception of *Psarus* that has an antennifer). The hairs on the arista are much less than 4 times its maximum width. The postpronotum is hairy. The posterior margin of the scutellum is normally shaped, without an apical rim. Cross-vein r-m is straight and placed well before the middle of cell dm and vein R_{4+5} is straight. The femora have no patch of spiny hairs basally and no spines ventrally. The first abdominal spiracle is embedded in the meta-epimeron (in *Psarus* the spiracle is not embedded).

It is differentiated from all previously mentioned genera by the squarish pronounced face; in *Rhingia* the face has a snout-like appearance and the face in other genera protrudes weakly, if at all. There is no facial tubercle, as in *Rhingia*, whereas other genera have a clear facial tubercle. The arista is placed basally on the basoflagellomere as in all other genera, with the exception of *Ischyroptera* and *Psarus* where it is placed apically. The metasternum is hairy, as in *Cheilosia* and *Rhingia*, while it is bare in *Ischyroptera* and *Psarus*. A spiracular hair patch is present on the metathorax. The wing has the costa ending before the apex, as in all other genera except *Rhingia* where it extends well beyond the apex of the wing. The alula is less than 3 times longer than wide, as in the other genera apart from *Ischyroptera* and *Psarus* where it is reduced and more than 5 times longer than wide.

Portevinia maculata male lunule

Portevinia maculata male head lateral

Rhingia campestris female head lateral

Rhingia campestris male habitus

Geographical distribution and global diversity

This is a genus that is confined to the Palaearctic. In Europe, the only species, *Portevinia maculata*, is found from southern Norway south to northern Spain and from Ireland eastwards into central Europe as far as Liechtenstein, Austria and northern Italy.

Outside Europe there are several more species that occur in the Eastern parts of the Palaearctic.

Presence in Europe

Austria, Belgium, Czech Republic, Denmark, France, Germany, Ireland, Isle of Man, Italy, Liechtenstein, Montenegro, Netherlands, Norway, Poland, Romania, Slovakia, Spain, Sweden, Switzerland, Ukraine, United Kingdom.

Biology

Adult behaviour and flower preferences. It mainly occurs in old alluvial hardwood forest and humid *Fagus* or *Quercus* forest but may also be found in unimproved alpine grassland. It occurs in dappled sunlight on the woodland floor is association with plants of *Allium ursinum* or (less frequently) *A. triquetrum*. Males often rest on the leaves of *Allium* and are often very obvious, whereas females fly low amongst the plant stems and are rarely seen until the plants start to die back. Neither gender strays far from stands of *Allium*, which itself is highly localised and confined to very old woodlands.

Where it has been naturalised in parkland etc, *A.triquetrum* may occur in dense stands like those of *A.ursinum*, and can provide an alternative foodplant for *Portevinia*.

The adults mainly visit the flowers of *Allium ursinum* but have also been recorded from *Ranunculus* and *Rubus idaeus*.

Reproduction and larval biology. The larva of *P. maculata* are described and figured by Speight (1986b) and illustrated in colour by Rotheray (1994). The larva is phytophagous, first mining the stem-base and later the corms of *Allium ursinum* (or *A. triquetrum*). It passes the winter as a first instar larva and becomes a puparium in early spring. The puparial phase lasts approximately three weeks. In the literature *P. maculata* is frequently referred to, erroneously, as mining the leaves of *A. ursinum*. In alpine grassland, *P. maculata* presumably uses a different *Allium* species as foodplant, as is the case in *Cheilosia fasciata* (see species account for that species), though which

Allium is involved (probably *A. victorialis*) does not seem to have been established for *P. maculata*. The larva may be distinguished from the larvae of related genera by the keys in Rotheray (1994).

Seasonal life cycle. The adults fly from the end of March to June depending on latitude and altitude. The species overwinters as larva, and there is one generation per year.

Type species: *Eristalis maculatus* Fallén 1817

Common names:
NB - urteblomsterfluer

List of species found in Europe:

1. *Portevinia maculata* (Fallén, 1817)

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Attributions

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