Pollinator Academy

Genus: *Lejogaster*

Lejogaster metallina male habitus

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Genus: *Lejogaster* Rondani, 1857

Family: Syrphidae

Subfamily: Eristalinae

Tribe: Brachyopini

Number of species of this genus found in Europe: 2

Description

Head

The eyes are bare and distinctly dichoptic in both sexes. The antennae are short and predominantly black. The basoflagellomere is uniformly black or partially yellow-orange. The basoflagellomere is particularly large and disc-shaped in the male and slightly smaller and more oval in the female. The arista is bare. The frons is flat and covered with short, white hairs. The male frons is punctate and with slightly wrinkled integument, with a weak median furrow extending from the ocellar triangle to the antennae. The frons of the female has transverse furrows running from the eye margin to a central furrow. The face is concave in profile with dust extended to the whole face, The anterior part of the mouth edge protrudes, forming a sharp angle with the rest of the face. The face is flat and lacks a facial tubercle.

Thorax

The postpronotum is hairy. The scutum is finely punctate, shiny, black to metallic blue-green coloured with 2 darker and dull longitudinal lines. The scutellum and pleurae are of the same colour as the scutum.

Wings

The wing is hyaline. On the dorsal surface of vein R_1, 5 to 7 long setae are clearly visible. Vein M_1 is slightly outwards curved and lies perpendicular to vein R_{4+5}. Veins R_1 and M_2 are located more to the base of the wing than the point in the wing were the vein R_{2+3} inserts into vein R_1. Cell r_1 is open.

Legs

The legs are entirely black, or with partly yellow tarsi. The hind femur lacks spines on underside. There is a coxal bridge behind the hind coxa.

Abdomen

The abdomen is oval in shape and elongate with sub-parallel edges, with the greatest width along segment 3. The integument is finely punctate, black to metallic blue-green. The tergites are shiny over their entire surface. The lateral margin of tergite 1 is very short but densely white haired. Sternite I is entirely shiny with white erect moderately long (in the male) to very short (in the female) hairs.

General comments on identification to species level

Differential diagnosis

This genus comprises small (5-8 mm) green, blue or copper shiny, hairless species. The face is concave, protrudes anterodorsally and lacks a facial tubercle. The eyes in both sexes are dichoptic and bare. The antenna has an oval to round basoflagellomere. Vein M_1 is perpendicular to the vein R_{4+5} and vein R_1 and vein M_2 are placed basally from the insertion of vein R_{2+3} into vein R_1. There are dorsal bristles on the basal section of vein R_1. The post-metacoxal bridge is present.

This genus belongs in the tribe Brachyopini (Chrysogastrini) within the subfamily Eristalinae, based on the notched oral margin. The face in the female lacks a tubercle. The eyes are bare. The postpronotum is hairy and the metasternum is bare. The scutellum lacks a hair fringe. Wing vein R_{4+5} is straight and crossvein r-m is straight and lies before the middle of cell dm. The length of crossvein r-m is equal to, or longer than the length of vein R_{4+5} + M_1. The femora have no basal patch of fine bristles. There are short spines on the ventral surface of the hind femur. The abdomen is oval.

The genus *Lejogaster* can be differentiated from the other closely related genera such as *Orthonevra*, *Riponnensia*, *Melanogaster* and *Chrysogaster* by the following characteristics: The eyes in both sexes are dichoptic and widely separated whereas in all other genera the eyes the of male are holoptic (with the exception of the male of *Melanogaster nigricans*). The dorsal surface of vein R has short bristles in the basal section, as in *Riponnensia*, whereas in in the other genera this vein is bare. The hairs on the hind femur are normal, as in other genera (except *Ripponensia* where there are additional short bristles present on the apico-ventral surface). The abdomen is entirely metallic and shiny whereas in the other genera the central part of the abdomen is dull or the abdomen is extensively shiny black.

Lejogaster metallina male habitus

Chrysogaster virescens male habitus

Orthonevra geniculata male habitus

Melanogaster hirtella male habitus

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Geographical distribution and global diversity

In the Palearctic region there are two species in the genus. Both species occur in most European countries and they are also known throughout the Palaearctic region as far as South-eastern Siberia, Mongolia and the Pacific coast. *L. metallina* is also known from North Africa.

Presence in Europe

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

Biology

Adult behaviour and flower preferences. Adults are found at the margins of streams and pools, but also further away in dry habitats. They fly in a zigzagging, darting fashion among taller vegetation. They have been seen to rest on leaves and flowers, and males are seen hovering close to females. In Great Britain *L. tarsata* is very strongly associated with coastal wetlands and some major river valleys , and has been found to be quite frequent in *Iris* flushes on the west coast of Scotland.

Adults mainly visit the flowers of *Ranunculus* but also other Ranunculaceae, white umbellifers and *Cochlearia*, *Convolvulus*, *Leontodon*, *Polygonum*, *Symphoricarpos*, *Valeriana*, *Iris pseuacorus*, *Crataegus*, *Matricaria*.

Reproduction and larval biology. The larvae of *L. metallina* are aquatic and occur in water-rich organic material, such as ditches, brooks, and ponds. They have been found in a floating mat of rotting material of mostly *Bulboschoenus maritimus* and in leaf sheaths of *Typhus*. The larvae of *L. tarsata* live in floating decaying organic material in small water-bodies such as ponds and ditches.

Seasonal life cycle. Adults fly from April to September, but there are also reports for February and October in parts of the distribution. The long flight season suggests that some species in this genus may have more than one generation per year depending on where they occur.

Type species: *Chrysogaster tarsata* Meigen, 1822

Common names:
NB - metallblomsterfluer;
SV - metallblomflugor

List of species found in Europe:

1. *Lejogaster metallina* (Fabricius, 1781)

2. *Lejogaster tarsata* (Megerle in Meigen, 1822)

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Attributions

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