



# Genus: *Triglyphus*



*Triglyphus primus* habitus

---

(© Sander Bot)

**Genus:** *Triglyphus* Loew, 1840

**Family:** Syrphidae

**Subfamily:** Pipizinae

**Tribe:** Pipizini

**Number of species of this genus found in Europe:** 2

---

## Description

### Head

The face is shiny, narrowly grey dusted along the eye margin, and has long pale brown hairs. The frons is shiny with long erect black hairs and there is a small bulge in the central area above the lunule. The angle of approximation of the eyes is 90°. The antennal fossae are confluent. The antenna is short, and the basoflagellomere is as long as high. The basoflagellomere is somewhat obliquely square with rounded corners, with a brownish-orange colour. The eye is densely covered with short brownish hairs that are approximately equal to the diameter of the scapus. The genae between the lower edge of the eye and the edge of the mouth are clearly developed. The vertex and the ocellar triangle have erect black hairs.

### Thorax

The postpronotum is hairy. The mesonotum is finely punctured, with erect yellowish to brownish hairs and longer black hairs. There is a transverse impression across the scutellum in front of the posterior margin. The pleurae have long yellow-brown hairs. Immediately behind the anterior spiracle there are longer hairs on the anterior part of the anterior anepisternum that are characteristic of the genus.

### Wings

The wing membrane is slightly brownish tinged. Vein  $R_{4+5}$  is straight, cross-vein  $r-m$  is located in the basal 1/5 of cell  $dm$ , vein  $M_1$  forms an acute angle with vein  $R_{4+5}$  and cell  $r_1$  is open. The calypters are yellowish-white with a brownish margin and a yellowish hair fringe. The halteres are yellow with a slightly darker stem.

## Legs

The legs are simple and black, but the base of the femora and both ends of the tibiae are yellow to yellow-brown. The hind trochanter of the male lacks a spine. The legs are mainly whitish haired with those on the femora as long as, or longer than the width of the femora.

## Abdomen

The abdomen has only three fully visible tergites. Tergite 1 is very short and is somewhat transversely wrinkled and shiny. Tergite 2 is almost square, and is mostly matt black with a steel blue shimmer but is shiny on the margins and on an indistinct central longitudinal line. Tergite 3 is somewhat longer than tergite 2. The hairs of the tergites protrude, are yellow-brown and are long on the lateral margin but very short in the central part of the tergite. The sternites are somewhat translucent black and covered in whitish hairs.

---

# General comments on identification to species level

## Differential diagnosis

This genus comprises small (5-7 mm) black species with a flat hairy face and they lack a facial tubercle. The face and eyes have white to brown, rather short hairs. The buccal cavity is rounded. The antenna are short, and the basoflagellomere is rounded. The thorax is black and is shiny with rather short whitish hairs. The abdomen is shiny black and has only three visible tergites.

This genus belongs to the subfamily Pipizinae based on the following characteristics: The hairy postpronotum; the hairy flat face without a facial tubercle and an evenly rounded, unnotched mouth edge. The eye is hairy. The metasternum is bare. Cross-vein r-m is located on the wing before the point where vein Sc meets the costa.

The genus *Triglyphus* can easily be differentiated from the other genera within the Pipizinae because there are only three equally large and visible abdominal tergites; in all other genera there are four equally large tergites visible. In the field it could be mistaken for a small *Cheilosia*, but *Triglyphus* has a flat face with extensive downward-facing hairs and no facial tubercle, whereas *Cheilosia* has a facial tubercle and the face rarely has extensive hairs.



*Triglyphus primus* female head lateral



*Triglyphus escalerae* female abdomen



*Trichopsomyia joratensis* female abdomen

---

## Geographical distribution and global diversity

This is mainly a Palearctic genus known from Western Europe, central Palearctic and the Eastern Palearctic such as Mongolia, China, Taiwan and Japan (Kuznetsov 1990). It is also present in North Africa and Australia. There are 7 described species, of which 2 species are known from Western Europe. (Vujić 1994)

*Triglyphus primus* is widespread in continental locations of the Palaeartic, from Sakhalin (Russia) to Andorra (Europe) (Speight 2020), while *T. escalerae* is found only in

locations of the Adriatic coast, Portugal and Morocco. (Ricarte & Nedeljković 2020, Jentzsch & Claussen 2014)

## Presence in Europe

Andorra, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France - Mainland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation - European Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Ukraine, United Kingdom.

---

## Biology

**Adult behaviour and flower preferences.** *T. primus* is usually found in ruderal habitats with patches of bare ground, such as roadside verges, railway embankments, quarries, dikes and also thermophilous forest fringes and gardens or parks where soil has been recently disturbed. *T. escaleraei* is found in evergreen humid or thermophilous oak forests, but also in suburban environments such as city parks and even gardens with planted trees. It is most abundant in dense and humid patches of *Laurel nobilis* forests and in undisturbed Mediterranean oak forests.

Adult males fly erratically low above ground or visit flowering plants where they resemble small bees and are difficult to detect. The adults settle on the leaves of bushes and shrubs, while females have been observed flying low through wet and partly shaded vegetation close to springs, and sometimes visiting flowers.

Adults visit flowers of Apiaceae such as *Aegopodium podagraria*, *Heracleum sphondylium*, *Daucus carota*, *Alliaria petiolata*, *Euphorbia* spp., *Ligustrum ovalifolium*, *Prunus* spp., *Ranunculus* spp., *Solidago* spp., *Sorbus aucuparia* and *Foeniculum* sp.

**Reproduction and larval biology.** Larvae of *T. primus* have been collected and reared from galls induced by the aphid *Cryptosiphum artemisiae* on *Artemisia vulgaris*, and might also occur in aphid galls on *Artemisia absinthium* and *Melilotus albus*. The larval stages of *T. escaleraei* are unknown.

**Seasonal life cycle.** Both European species have a long flight time, from April to September, but *T. escalerae* is most abundant in spring from mid-April to mid-June and *T. primus* (based on British data) is seemingly most abundant in July and August. It is not clear whether late summer or spring outliers (respectively) are indicative of two generations or aberrant emergence governed by prevailing weather.

---



**Type species:** *Triglyphus primus* Loew, 1840

**Common names:**

FI - pujosysiset;

NB - galleblomsterfluer

---

## List of species found in Europe:

1. *Triglyphus escalerae* Gil Collado, 1929
2. *Triglyphus primus* Loew, 1840

---

## References

IUCN. (2021) The IUCN Red List of Threatened Species. Version 2021-3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 09 December 2021).

Jentzsch, M. & Claussen, C. (2014) Second record of *Triglyphus escalerae* Gil Collado (Diptera: Syrphidae) from Portugal, with comments on the taxonomy of the species. *Studia dipterologica*, 21, 22-24.

Kuznetsov, S. Y. (1990) A new species of *Trichopsomyia* Williston and *Triglyphus* Loew (Diptera, Syrphidae) from Far East and Japan. *International Journal of Dipterological Research*, 1, 12-15.

Ricarte, A. & Nedeljković, Z. (2020) *Triglyphus primus* Loew, 1840 (Diptera, Syrphidae), new to Spain. *Boletín de la Asociación española de Entomología*, 44, 567-570.

Speight, M. C. D. and Sarthou, J.-P. (2017) StN keys for the identification of the European species of various genera of Syrphidae 2017/Clés StN pour la détermination des espèces Européennes de plusieurs genres des Syrphidae 2017. *Syrph the Net, the database of European Syrphidae (Diptera)*, Vol. 99, 139 pp, Syrph the Net publications, Dublin.

Violovitsh, N.A. (1980) Survey of Palaearctic species of the genus *Triglyphus* Loew, 1840 (Diptera, Syrphidae). *Izv. Sib. Otdel. Akad. Nauk SSSR (Biol. Nauk)*. 1: 40-44. [In Russian, English summary]

Vujić, A. (1994) Description of male of species *Triglyphus escalerae* Gil Collado, 1929 (Diptera: Syrphidae). *Graellsia*, 50, 21-24.

## Attributions

This factsheet was created by Taxo-Fly and is one of the outputs from a network of European Initiatives dedicated to pollinators, such as the EU Pollinator Monitoring Scheme (EUPoMS), the Preparatory Action for EU Pollinator Monitoring Scheme and Indicators (SPRING project), the Horizon 2020 Europe research projects (POSHBEE, SAFEGUARD), and European National action plans for pollinators.

### Authors

Photographs: Sander Bot (Taxo-Fly team)

Text: Gerard Pennards & Jeroen van Steenis (Taxo-Fly team)

Reviewer: Roger Morris (Taxo-Fly team)

## License

The content of this factsheet is licensed under a Creative Commons Attribution-ShareAlike ([CC BY-SA](#)).

## Image rights

Most images created under the Taxo-Fly project have an open Creative Commons license ([CC BY 4.0](#)). However, some images are licensed to the European Union and shared under the Creative Commons license Attribution-NonCommercial 4.0 International ([CC-BY-NC 4.0](#)). This is indicated in the image caption.

