



# Genus: *Sphegina*



*Sphegina clunipes* male

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**Genus:** *Sphagina* Meigen, 1822

**Family:** Syrphidae

**Subfamily:** Eristalinae

**Tribe:** Brachyopini

**Number of species of this genus found in Europe:** 18

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## Description

*Sphagina* are small or medium-sized (4-9 mm) slender hoverflies with a petiolate abdomen and enlarged hind femora which are clearly visible due to the elongate hind coxa and the petiolate abdomen.

### Head

The face is strongly concave, lacks a facial prominence and is bare. Viewed laterally, the genae are linear and the mouth edge protrudes, pointing forward. The eyes are bare and in all species are dichoptic. The antenna is short, and about as long as the face. The basoflagellomere is orbicular. The arista is bare or pubescent.

### Thorax

The anterior anepisternum is bare, as are the posterior parts of the anepimeron, the meron (including the barrette) and the metasternum. The scutellum usually has marginal bristles, but it lacks a subscutellar fringe. The postmetacoxal bridge is complete and broad.

### Wings

The wing is usually hyaline, but occasionally the crossveins or even part of the wing membrane may be slightly infuscated (e.g. *S. limbipennis*). The alula is narrow or absent; when present it is always narrower than the width of the anal lobe cup. Wing cell  $r_1$  is open whilst cell  $r_{4+5}$  is closed and is petiolate. Crossvein r-m lies within the basal 1/3 or less of cell dm. The vena spuria is usually present but sometimes is hardly visible and seems to be missing.

## Legs

The legs are usually simple, with the exception of the hind femur, which is greatly enlarged and has ventroapical spinose bristles. Some species can have some other modifications such as an expanded middle tibia with dense black bristles at the apex.

## Abdomen

The abdomen is petiolate. Tergite 2 is usually narrow and more or less elongated, but segments 3 and 4 are broadened, especially in the female. In some species sternite 1 is greatly reduced or absent (subgenus *Asiosphegina*). In some species the female has two parallel membranous strips on the posterior part of tergite 5. In the males of some species sternite 4 is expanded with apicolateral tufts of hair or bristles.

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# General comments on identification to species level

## Differential diagnosis

The characteristics of *Sphegina* are as follows: The face is strongly concave and is bare in both sexes. The basoflagellomere is oval with a dorsal arista that is pilose. The eye is bare and is dichoptic in both sexes. The postpronotum is pilose. The metasternum and the katepisternum are bare. The ventral scutellar fringe is absent. The alula in the wing is narrow or absent. The postmetacoxal bridge is complete and is broad. Wing vein  $R_{4+5}$  is straight, and cross vein dm-m joins vein  $M_{1+2}$  perpendicularly. Vein  $M_1$  is rounded at the point where it turns upwards to meet  $R_{4+5}$ , unlike *Neoascia* where this upturn is more angular. Vein  $R_5$  is entirely setose. The hind legs are much longer than the front and middle legs and the hind femur is strongly swollen with strong spines ventrally. The abdomen is petiolate, in which tergite 2 is mostly slender and elongated whereas tergites 3 and 4 are broadened, especially in the female.

*Sphegina* are similar to the species of their sister group *Neoascia* but are distinguished by the following characters: The face of *Neoascia* is oblique and nearly straight, and the face is laterally pilose. The katepisternum of *Neoascia* is usually pilose. The basoflagellomere of *Neoascia* is usually elongate and it is longer than wide and the arista is bare and about as long as the basoflagellomere. The vein  $R_5$  of *Neoascia* lacks setae. Crossvein dm-m in *Neoascia* meets vein  $M_{1+2}$  at a right angle whereas in *Sphegina* crossvein dm-m meets vein  $M_{1+2}$  at a somewhat oblique angle. The small-sized species of *Sphegina* can be very similar to *Neoascia* in habitus and they may be especially difficult to distinguish in the field (Hippa et al. 2015).

*Baccha* are slender and look a bit like *Sphegina*, but *Baccha* is even slenderer, the hind femur is not swollen and the males are holoptic.

*Syritta* may be confused with *Sphegina*, but the abdomen is not petiolate and has yellow spots, and the male is holoptic.



*Sphegina elegans* female head



*Sphegina limbipennis* wing



*Sphegina sibirica* female abdomen

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*Neoascia podagrica* male habitus



*Baccha elongata* male habitus



*Neoascia interrupta* male head

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## Geographical distribution and global diversity

*Sphegina* has a Holarctic–Oriental distribution. Pape & Thompson (2013) list 85 described species, of which 72 are Holarctic and 13 are Oriental. Amongst the Holarctic fauna, there are 52 Palearctic species and 20 Nearctic species with no species common to both regions. Eighteen species are currently known from the western Palearctic. Hippa et al. (2015) describe 35 new species from a relatively small part of Myanmar and suggest that more species will be found, especially in the Oriental region. As a result, the world fauna of *Sphegina* now comprises around 120 species.

### Presence in Europe

Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Moldova, Montenegro,

Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation  
- European Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine,  
United Kingdom.

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## Biology

Adult *Sphegina* prefer damp and shady habitats, and they tend to be much scarcer in dry areas. They are often found close to water in well forested areas, and several species can often be found together. They can also be found in some city parks that are not too highly manicured and have some 'wild' areas. In flight hind legs often hang downwards and appear to be remarkably long, resembling sphecid or ichneumonid wasps. They fly through the vegetation and feed on white and yellow flowers of e.g. Apiacea, Ranunculacea, Asteraceae and Rosacea. They have also been seen visiting *Crataegus* spp., *Sorbus aucuparia*, *Sorbaria* spp., *Prunus* spp., *Chaerophyllum temulum*, *Ranunculus* spp., *Sanicula* spp., *Stachys* spp., *Valeriana* spp., *Viburnum opulus*, *Anthriscus sylvestris*, *Euphorbia* spp., *Ficaria* spp., *Sambucus* spp., *Caltha palustris*, *Fragaria* spp., *Swida alba*, *Potentilla erecta* and *Rubus chamaemorus* (IUCN 2021).

**Reproduction and larval biology.** The larvae live in sap runs on living and dead trees or in decaying cambium under the bark of tree trunks and branches lying in water or other wet conditions. Circumstantial evidence suggests that some species such as *S. siberica* and *S. clunipes* may breed in a wider selection of wet places, possibly in the rotting roots of some wetland plants such as *Oenanthe coccata* as these species can occasionally be abundant in unwooded areas in the west of the UK (Roger Morris pers. comm. 2024). The larvae of some species have been discovered in the tunnels of other xylophagous insects.

**Seasonal life cycle.** In the Western Palearctic several of the species have a broad flight season, and some species might have more than one generation per year, especially in the southern parts. Other species that occur in warmer parts of the world are probably bi- to multivoltine.



**Type species:** *Milesia clunipes* Fallén, 1816

**Common names:**

FI - kurokkaat;

SV - midjeblomflugor;

NB - midjeblomsterfluer

## List of species found in Europe:

1. *Sphegina atrolutea* Lucas in Thompson & Torp, 1986
2. *Sphegina clavata / nigra* (Scopoli, 1763)
3. *Sphegina claviventris* Stackelberg, 1956
4. *Sphegina clunipes* (Fallén, 1816)
5. *Sphegina cornifera* Becker, 1921
6. *Sphegina dogieli* Stackelberg, 1953
7. *Sphegina elegans* Schummel, 1843
8. *Sphegina latifrons* Egger, 1865
9. *Sphegina limbipennis* Strobl, 1909
10. *Sphegina montana* Becker, 1921
11. *Sphegina nebrovi* Skufjin, 1976
12. *Sphegina obscurifacies* Stackelberg, 1956
13. *Sphegina platychira* Szilády, 1937
14. *Sphegina sibirica* Stackelberg, 1953
15. *Sphegina spheginea* (Zetterstedt, 1838)

16. *Sphegina sublatifrons* Vujčić, 1990
  17. *Sphegina varifacies* Kassebeer, 1991
  18. *Sphegina verecunda* Collin, 1937
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## References

Hippa, H. & Ståhls, G. (2005) Morphological characters of adult Syrphidae: descriptions and phylogenetic utility. *Acta Zoologica Fennica*, 215, 1–72.

Hippa, H., van Steenis, J. & Mutin, V.A. (2015) The genus *Sphegina* Meigen (Diptera, Syrphidae) in a biodiversity hotspot: the thirty-six sympatric species in Kambaiti, Myanmar. *Zootaxa* 3954. 67 pp.

IUCN (2021) The IUCN Red List of Threatened Species. Version 2021-3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 25 february 2024).

Meigen, J.W. (1822) *Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten*. Dritter Theil, Schulz Wundermann, Hamm, Germany, 416 pp.

Pape, T. & Thompson, F.C. (Eds.) (2013) *Systema Dipteroorum*, Version [1.5]. Available from: <http://www.diptera.org/> (accessed on 26 February 2024)

Stackelberg, A.A. (1953) A short survey of the Palaearctic species of the genus *Sphegina* Mg. (Diptera, Syrphidae). *Trudy Zoologicheskogo Instituta Akademii Nauk SSSR*, 13, 373–386. [in Russian]

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, vol. 104: 1–314.

Thompson, F.C. (1972) A contribution to a generic revision of the Neotropical Milesinae (Diptera: Syrphidae). *Arquivos de Zoologia, So Paulo*, 23, 73–215.

## Attributions

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