



Genus: *Didea*



Didea fasciata male

(© Sander Bot, licensed to the EU under CC-BY-NC 4.0)

Genus: *Didea* Macquart, 1834

Family: Syrphidae

Subfamily: Syrphinae

Tribe: Syrphini

Number of species of this genus found in Europe: 3

Description

Head

Male: eye is with scattered long hairs. Face is slightly receding, with a small facial tubercle; yellow, with or without a short median black stripe between the facial tubercle and the mouth edge.

There is little sexual dimorphism. The female is dichoptic, the broad frons present in the female is mostly black, dusted yellow-brown laterally.

Thorax

The scutum is shiny black, without dusting, and laterally obscurely yellow brown. The scutellum is dorsally yellow/yellow-brown. The pleuron is virtually black, but large areas of the posterior anepisternum, dorsal katepisternum and anepimeron are densely dusted pale grey, obscuring the underlying colour, which varies from black to yellow-brown. The dorsal and ventral katepisternal hair patches are separated throughout. The meron, just antero-ventral to the posterior spiracle, with a few long, fine hairs. The metasternum is hairy.

Wings

The wing membrane is hyaline, entirely or almost entirely microtrichose. Wing vein R_{4+5} dips deeply into wing cell r_{4+5} .

Legs

The legs are mostly brownish black, the hind leg entirely so except for the knee. The distal half of front and mid femora and all the front and mid tibiae are extensively

yellow.

Abdomen

The abdomen is oval, broad and very flat, with a strong marginal sulcus along the lateral margins of tergite 2 to tergite 5. Tergite 2 is black, with a pair of large, yellow or pale green marks broadly reaching the lateral margins of the tergite; tergites 3 and 4 are black, each with a broad yellow or pale green band which usually does not reach the lateral margins of the tergite and often with its hind margin deeply incised medially (in extreme cases, dividing the band into a pair of bars). The sternites are mostly yellow, with the exception of sternite 1 (yellow in *D. faciata*), each marked postero-medially by a sharply defined, black triangular spot, which is often with a pair of triangular posterolateral black spots, to a transverse black band along the posterior margin of the sternite, extending over membrane to the tergite's lateral margins.

General comments on identification to species level

Differential diagnosis

In its morphological features *Didea* is a very well defined genus with no apparent close relatives. The three European species are similar in appearance to each other and can be considered together in separating them from species of other genera.

Didea species have a mostly or entirely yellow face and scutellum and a broad, flat abdomen, black with extensive yellow or pale green markings. As such they are readily distinguished from the species of most European genera of Syrphini, but have a general resemblance to the species others, like *Epistrophe*, *Eupeodes*, *Lapposyrphus*, *Megasyrphus* and *Syrphus*. On the wings, vein R_{4+5} curves deeply into wing cell r_{4+5} in *Didea* species, separating them from species of *Epistrophe*, *Eupeodes* and *Syrphus*. In some *Eupeodes* species vein R_{4+5} is weakly curved into cell r_{4+5} , but nowhere near to the extent that it is in *Didea* species. *Didea* species can be separated from *Megasyrphus* by their yellow or green markings on tergites 3 and 4, which usually do

not reach the side margins of the tergites, as they do in *Megasyrphus*. Additionally, if yellow bands on tergites 3 and 4 reach the lateral margins these black haired in *Didea*, while in *Megasyrphus* the yellow section of the margin is mostly yellow haired. Also, in *Megasyrphus* there is a broad median, black stripe on the face, extending from the oral margin for most or all of the distance toward the antennal insertions, whereas in *Didea* the face is either entirely yellow medially or with a very short median brown or black stripe which does not extend even half way to the antennal insertions. The shape of the markings on tergites 3 and 4 can also be used to separate *Didea* species from *Lapposyrphus*, as in *Didea* the anterior margin of these markings is straight, whereas in *Lapposyrphus* it is deeply concave.



Didea intermedia male habitus



Syrphus torvus male habitus



Eupeodes luniger male habitus

(© Sander Bot)

Geographical distribution and global diversity

All three of the European species are absent from the Arctic zone, but are otherwise widespread in the continent, though becoming largely montane in the Mediterranean

zone. Their range extends beyond Europe across the Palaearctic region to the Pacific coast. One of them, *Didea alneti*, also occurs widely in North America.

Presence in Europe

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

Biology

Didea species are fast-flying, most readily encountered in the vicinity of trees or shrubs. The male of *D. alneti* is unusual in that, when it is hovering, it does so with its body held almost vertically. All three European species are forest insects. *Didea fasciata* is associated with a wider range of forest types than the other two species, occurring in humid deciduous forests of oak and beech, alluvial hardwood forest and also in thermophilous oak forest, plus evergreen oak forest of *Quercus rotundifolia*, and in various types of conifer forest. The other two species are essentially insects only of humid conifer forest. All three species have flight seasons extending from the spring to the autumn, but observations on the larval development are insufficient to know if the prolonged flight season represents two or more generations per year.

The larvae are aphid predators in the foliage of trees and shrubs, *D. intermedia* on various species of pine, *D. alneti* on conifers, but also *Prunus*, *Salix* and *Quercus*, and *D. fasciata* on a range of both deciduous trees and conifers. *Didea alneti* visits the flowers of herb layer plants and shrubs, including the pollen-only flowers of *Plantago*, *Rosa* and male *Salix*. The only pollen-only flower recorded as visited by *D. fasciata* is *Urtica dioica*, which otherwise visits mostly the flowers of shrubs and small trees like *Polygonum cuspidatum*, *Arbutus*, *Crataegus*, *Sambucus* and *Viburnum*, but also flowering lianas – *Hedera* and *Rubus fruticosus* agg. By contrast, flower-visiting by *D. intermedia* involves

mostly herb-layer plants – umbellifers, *Narthecium ossifragum*, *Potentilla*, *Ranunculus*, *Sambucus ebulus* and low shrubs, e.g. *Calluna* and *Ligustrum*.



Type species: *Didea fasciata* Macquart 1834

Common names:

FI – lattakirvarit;

SV – vinkelblomflugor;

NB – vinkelblomsterfluer

List of species found in Europe:

1. *Didea alneti* (Fallén, 1817)
2. *Didea fasciata* Macquart, 1843
3. *Didea intermedia* Loew, 1854

References

Bartsch, H., Binkiewicz, E., Rådén, A. & Nasibov, E. (2009b) *Blomflugor: Syrphinae. Nationalnyckeln till Sveriges flora och fauna, DH53a*. Artdatabanken, SLU, Uppsala, 406

Bot, S. & Van de Meutter, F. (2019) *Veldgids Zweefvliegen*. Koninklijke Nederlandse Natuur Vereniging, Zeist, 388 p.

Speight, M.C.D. (2020) *Species accounts of European Syrphidae, 2020*. Syrph the Net, the Syrph the Net, the database of European Syrphidae (Diptera), Vol. 104. Syrph the Net publications, Dublin, 314 pp.

van Veen, M.P. (2004) *Hoverflies of Northwest Europe: identification keys to the Syrphidae*. KNNV Publishing, Utrecht, 256 p.

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: Martin Speight & Libor Mazanek (Taxo-Fly team)

Reviewer: Martin Speight (Taxo-Fly team)

License

The content of this factsheet is licensed under a Creative Commons Attribution-ShareAlike ([CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/)).

Image rights

Most images created under the Taxo-Fly project have an open Creative Commons license ([CC BY 4.0](https://creativecommons.org/licenses/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](https://creativecommons.org/licenses/by-nc/4.0/)). This is indicated in the image caption.

