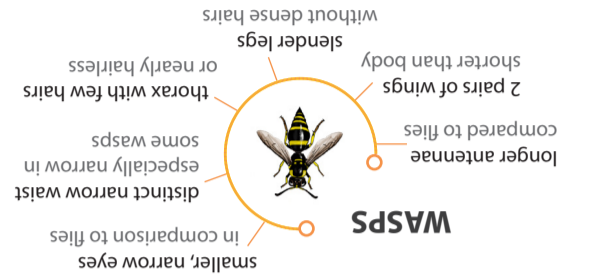


**BETTER BEETLES**  
COLEOPTERA

**HYMENOPTERA**



**WASPS**

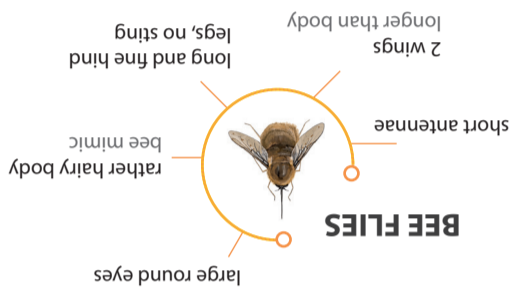


**BEEES**

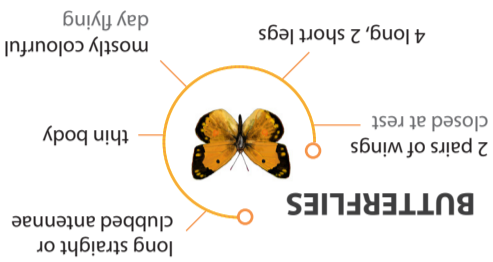
**DIPTERA (FLIES)**



**HOVERFLIES**



**BEE FLIES**



**BUTTERFLIES**



**MOTHS**

**LEPIDOPTERA**

**POLLINATING INSECTS**

**FLIES**

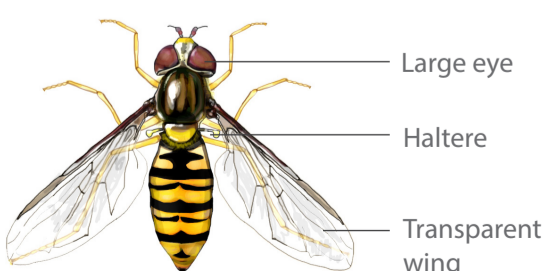
Fly pollinators can be found all year round on flowers. In cold climates they are often the dominant pollinators. Their larvae develop as consumers of organic material, and they can be free-living predators or parasitoids and kleptoparasites, mostly of other insects.

Although many fly groups visit flowers, here we present the most efficient pollinator groups, viz. hoverflies, bee flies and nemestrinid flies.

**IDENTIFY FLIES IN THE FIELD**

- Fly pollinators are encountered on open flowers, mainly white and yellow coloured ones, like those of the aster and carrot family.
- Together with mosquitoes, crane flies, gnats, black flies, and midges they make up the order Diptera. They have only one pair of transparent wings and two halteres (club-like appendages behind the wings), mouthparts modified for lapping or sucking, and large compound eyes. Their exoskeleton is softer and relative more flexible compared to other pollinating insects.

**FLY ANATOMY SIMPLIFIED**



**LIFE 4 POLLINATORS**

The aim of the project is to improve pollinator conservation by creating a virtuous circle leading to a progressive change in practices across the Mediterranean region.

In Mediterranean countries (Spain, Italy, France and Greece) there is inadequate awareness about the role of wild pollinators and the importance of conserving their diversity. This knowledge gap is one of the main obstacles to proper planning of successful programmes to address the main drivers behind pollinator decline and ensure sustainable management and restoration of the remaining high-value pollinator habitats.



The project will contribute to a range of EU policy and legislation matters, including amongst others the biodiversity strategy, the pollinators initiative and biodiversity protection under the common agricultural policy.



## BEE FLIES

***Bombyella atra***

**BODY** all black with many white spots on the abdomen

**WINGS** wings darkened at the base

hairy bee fly

April–May

**DIMENSIONS:** 9–10 mm

***Bombylius medius***

**BODY** all uniform brown to yellow

hairy bee fly

**WINGS** characteristic wings with many dark spots

very long tongue

April–May

**DIMENSIONS:** 11–14 mm

***Geron* sp.**

**BODY** hump-backed, short-haired and slender

small hairy grey or brown bee fly

long tongue

May–Oct.

**DIMENSIONS:** 4–6 mm

***Toxophora fasciculata***

**BODY** hump-backed, short-haired and slender

orange and black-spotted bee fly

long antennae and tongue

May–Oct.

**DIMENSIONS:** 9–11 mm

## HOVERFLIES OR FLOWER FLIES

***Chrysotoxum intermedium***

**BODY** abdomen globular in shape

relatively long antennae for a hoverfly

yellow and black hoverfly, wasp mimic

all year

**DIMENSIONS:** 12–13 mm

***Epistrophe eligans***

black hoverfly with little orange, no clear mimicry

**BODY** the thorax is dark, except the rear upper part is yellow to orange

two yellowish basal segments of the abdomen usually with characteristic marking (inverted dark T-shaped mark) and other segments black

March–July

**DIMENSIONS:** 9–11 mm

***Episyrphus balteatus***

**BODY** each segment of the abdomen with 2 dark bands separated by 2 orange bands

among the most common migratory hoverfly species

yellow and blackish hoverfly, wasp mimic

all year

**DIMENSIONS:** 9–11 mm

***Eristalinus taeniops***

**BODY** the compound eyes have vertical dark stripes

orange and black hoverfly, bee mimic

**WINGS** outer upper corner of wing with strongly curved vein

all year

**DIMENSIONS:** 9–11 mm

***Eristalis tenax***

**BODY** compound eyes have 2 darker vertical bands of dense hairs

black hoverfly with little orange, bee mimic

**WINGS** outer upper corner of wing with strongly curved vein

among the most common migratory hoverfly species

all year

**DIMENSIONS:** 12–15 mm

***Eupeodes corollae***

**BODY** yellow lunulate markings on the abdomen

yellow and black hoverfly, wasp mimic

**WINGS** venation as illustrated

among the most common migratory hoverfly species

all year

**DIMENSIONS:** 10–12 mm

***Meliscaeva auricollis***

**BODY** yellow markings on abdomen triangular to elliptical

yellow and blackish hoverfly, wasp mimic

**WINGS** elongated

all year

**DIMENSIONS:** 8–10 mm

***Merodon albifrons***

**BODY** abdomen and legs partially orange

dark hoverfly with little orange, bee mimic

**WINGS** venation with curved vein in upper outer corner

April–Oct.

**DIMENSIONS:** 10–12 mm

***Myathropa florea***

**BODY** characteristic 'Batman' marking on top of the thorax

yellow and black hoverfly, wasp mimic

**WINGS** wing venation like *Merodon albifrons*

all year

**DIMENSIONS:** 12–14 mm

***Paragus bicolor***

**BODY** small species with round yellow face

red and black hoverfly

**BODY** abdomen partially red and rear part of thorax with yellow marking

April–Oct.

**DIMENSIONS:** 5–7 mm

***Sphaerophoria scripta***

**BODY** very slender elongate yellow-banded hoverflies with abdomen longer than the wings

yellow and black hoverfly, wasp mimic

**BODY** yellow face and yellow lines on the upper sides of the thorax

among the most common migratory hoverfly

all year

**DIMENSIONS:** 8–10 mm

***Syritta pipiens***

**BODY** slender hoverfly with enlarged hind thighs

dark hoverfly with little orange

**BODY** the sides of thorax all greyish white

largely orange antennae

Mar–Oct.

**DIMENSIONS:** 7–9 mm

***Syrphus ribesii***

**BODY** oval, yellow-banded abdomen

yellow and black hoverfly, wasp mimic

**BODY** thorax dull greenish and legs almost completely yellow or orange

Mar–Oct.

**DIMENSIONS:** 10–12 mm

***Volucella zonaria***

**BODY** one of the largest species, with upper part of the thorax red

yellow and red hoverfly, hornet mimic

**HEAD** yellow face and characteristic plumose antennae

May–Oct.

**DIMENSIONS:** 16–18 mm

***Xanthogramma citrofasciatum***

**BODY** thorax black with contrasting lemon-yellow markings, especially the broad yellow stripes running along the upper edge

yellow and black hoverfly, wasp mimic

**BODY** yellow face and yellow interrupted bands on the abdomen

April–Oct.

**DIMENSIONS:** 11–13 mm

## NEMESTRINID FLIES

***Fallenia fasciata***

**BODY** abdomen with white hair bands

hairy nemestrinid fly, bee fly mimic

**WINGS** characteristic wing venation

April–July

**DIMENSIONS:** 11–13 mm