BEGINNERS GUIDE TO HOVERFLIES IN IRELAND

This guide has been put together by the
National Biodiversity Data Centre

Version 1: July 2015

BEGINNERS GUIDE

This is **NOT** a key. It is simply intended as a guide to help make hoverflies more accessible to beginners. It refers only to genera/species currently known from Ireland. Syrphids should be identified using a scientific key.

If you find errors or have suggested improvements please get in touch. It is hoped that this guide can be continually improved and new versions released annually over the coming years.

Most hoverflies cannot be recognised simply by sight – it will be necessary to check specific features to ensure correct identification. In a small number of cases this can be done using a photograph, but in the majority of cases lethal sampling and observation using a microscope is required.

USING THIS GUIDE

- This guide is intended to primarily help you recognise the different **genera** of hoverflies that occur in Ireland. Where a genus has easily recognisable species these are also mentioned. It is intended to support, **not replace**, the use of scientific keys.

- The guide pulls out 15 distinctive features that will help you recognise different genera. Within each distinctive feature, all genera with this feature are mentioned e.g., only *Rhingia* has a long snout. There are then an additional 6 features that are less distinctive and more difficult to recognise.

- The guide **must be used sequentially** – you should work through features 1 to 21, checking each time if the features of that genus match your specimen. Pages 15-19 provide an overview, you should begin working through the guide at page 21.

- In some cases the guide will help you identify your hoverfly to genus (or species) and in some cases it will simply bring you to a reduced number of possibilities.

- The guide covers all genera currently recorded from Ireland. Genera are indicated by a blue box. The number in brackets indicates the number of species within that genus that have been recorded from Ireland. If the species name is in full it means this is the only species of that genus in Ireland.

- Genera details are provided on the left side of the page. Where the species within this genus can be readily identified, the features to look for are indicated on the right hand side of the page.

Information sources:

Information on habitat, flight period and distribution is taken from: Speight, M.C.D. (2014) Species accounts of European Syrphidae (Diptera), 2014. Syrph the Net, the database of European Syrphidae, vol. 78, 321 pp., Syrph the Net publications, Dublin.

Full species accounts for each of the 180 Irish species are available here: http://species.biodiversityireland.ie/?keyword=Hoverflies

Coding used:

Where more than one species within a genus is mentioned. The following coding is used:

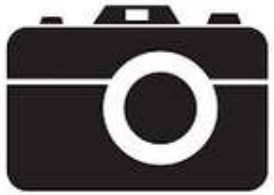
Species name: flight period coded by month; size; habitat; distribution in Ireland; key identification features (in orange text)
Example - ***Sericomyia silentis:*** 5-9; large; wetland/forest; widespread. Dark scutellum and abdomen with yellow bars

Size	Length of most commonly observed individuals
Small	Less than 0.5cm
Medium	0.5-1.0cm
Large	More than 1.0cm

This symbol means the hoverfly needs to be lethally sampled and identified using a microscope and scientific key.

This symbol means that with experience the hoverfly could be identified by close observation – either catching in a net, or from a good quality photograph. **Photographs can only be used if you have captured all the correct features for identification.** Consult an expert if you are unsure.

This symbol means the hoverfly can be found in parks & gardens



Identifying hoverflies in the field or by photograph

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With experience, a number of species can be identified in the field. For the majority of these, very good close-up views are required to see critical features such as tarsal (leg) colour and wing venation.

Open-structured flowers such as hogweed in sheltered, sunny locations are generally the most productive locations for getting good views of hoverflies

Some species rarely visit flowers but can be found feeding on leaves where they are taking advantage of pollen grains trapped on the leaves surface or on honeydew.

Catching hoverflies in a hand net and looking at them with a hand lens is the best approach.

Photographs need to show critical features, e.g., typical photos from above often do not show important features such as leg colour and face pattern

Voucher specimens should always be taken of any new records of rare species

USING THIS GUIDE: EXAMPLE PAGE

Distinctive feature to initially check for

Tip to distinguish this genus from others with the same distinctive feature

Indication that the genus may require a specimen to be sure of correct identification

Genus name, with number of species recorded from Ireland within this genus in brackets

Information on each species

Characteristics of the genus

6. DISTINCTIVE FEATURE: **Looped vein (11 genera)**

Heliophilus (3)

H. trivittatus

- Hind tibia with one dark band
- Antennae black
- Yellow face

Thorax with longitudinal stripes

Helophilus trivittatus: 5-10; large; wetland/open ground; river margins, seasonally flooded humid grassland and salt-marsh; occasional Face entirely yellow

Helophilus pendulus: 4-10; large; freshwater/wetland; widespread & common Face with a black stripe. Hind tibia with lower third black.

Helophilus hybridus: 5-8/9; large; wetland/freshwater; widespread & common Face with a black stripe. Hind tibia with lower half or more black.

H. pendulus

H. hybridus

Recommended scientific keys:

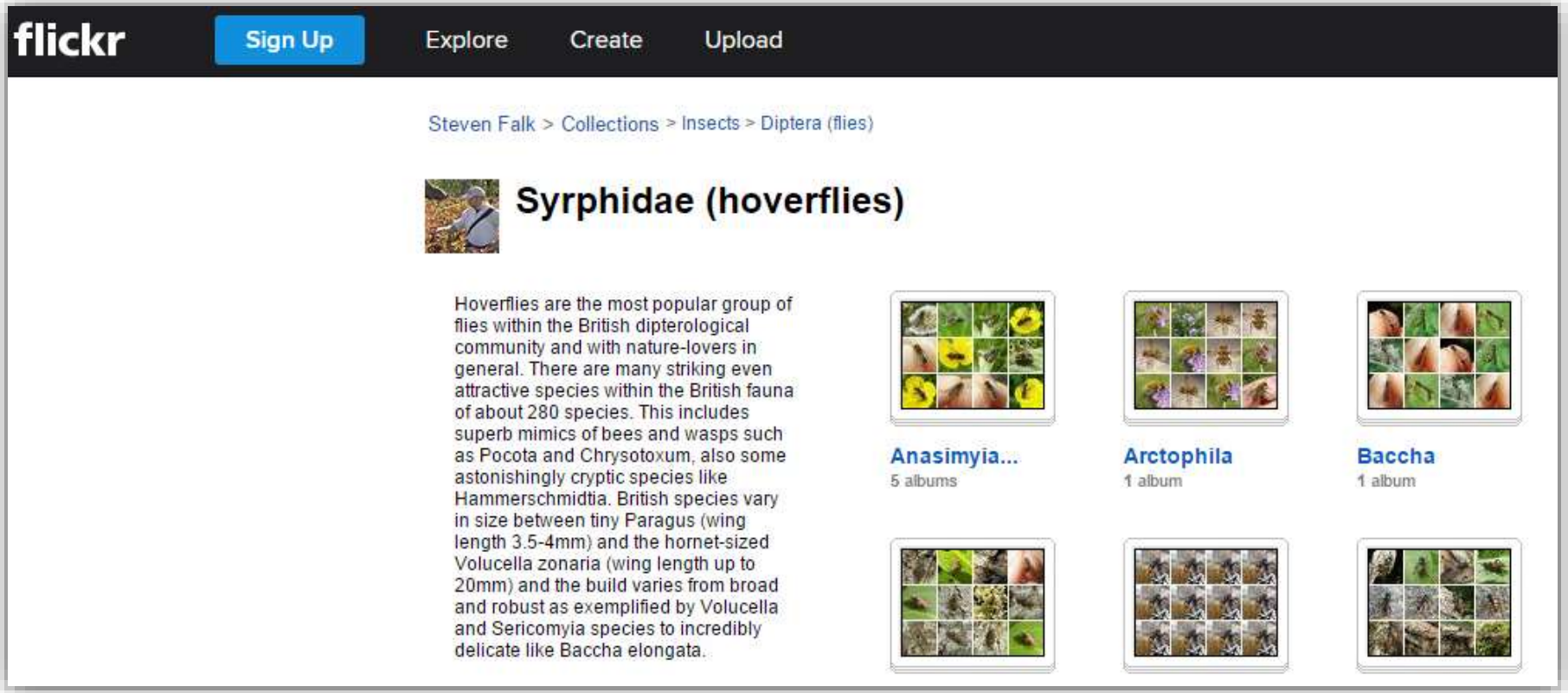
- Speight, M.C.D. & Sarthou, J.-P. (2014) StN keys for the identification of adult European Syrphidae (Diptera). Syrph the Net, the database of European Syrphidae, Vol. 74, 135pp, Syrph the Net publications, Dublin. **Freely available here**: http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/id-guides/

- Ball, S.G., Stubbs, A.E., McClean, I.F.G., Morris, R.K.A., Falk, S.J. & Hawkins, R.D. (2002) British Hoverflies: an illustrated identification guide, 2nd edition, 469pp. British Entomological and Natural History Society

- Bartsch, H., Binkiewicz, E., Rådén, A. & Nasibov, E. (2009a) Blomflugor: Syrphinae. Nationalnyckeln till Sveriges flora och flora, DH53a. Artdatabanken, SLU, Uppsala. 406 pp. (in English).

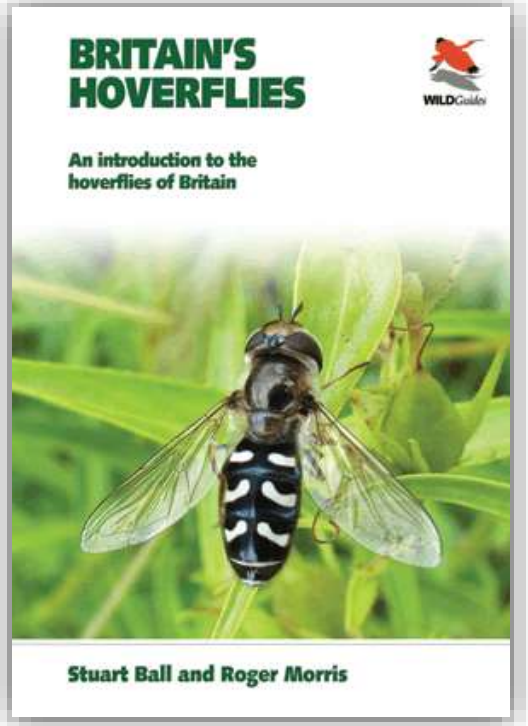
- Van Veen, M. (2004) Hoverflies of Northwest Europe: identification keys to the Syrphidae. 256pp. KNNV Publishing, Utrecht.

Recommended resources:



Steven Falk has a fantastic flickr account with information and images of hoverflies: https://www.flickr.com/photos/63075200@N07

If using this guide, it is strongly recommend that you consult this site for additional images and further identification tips

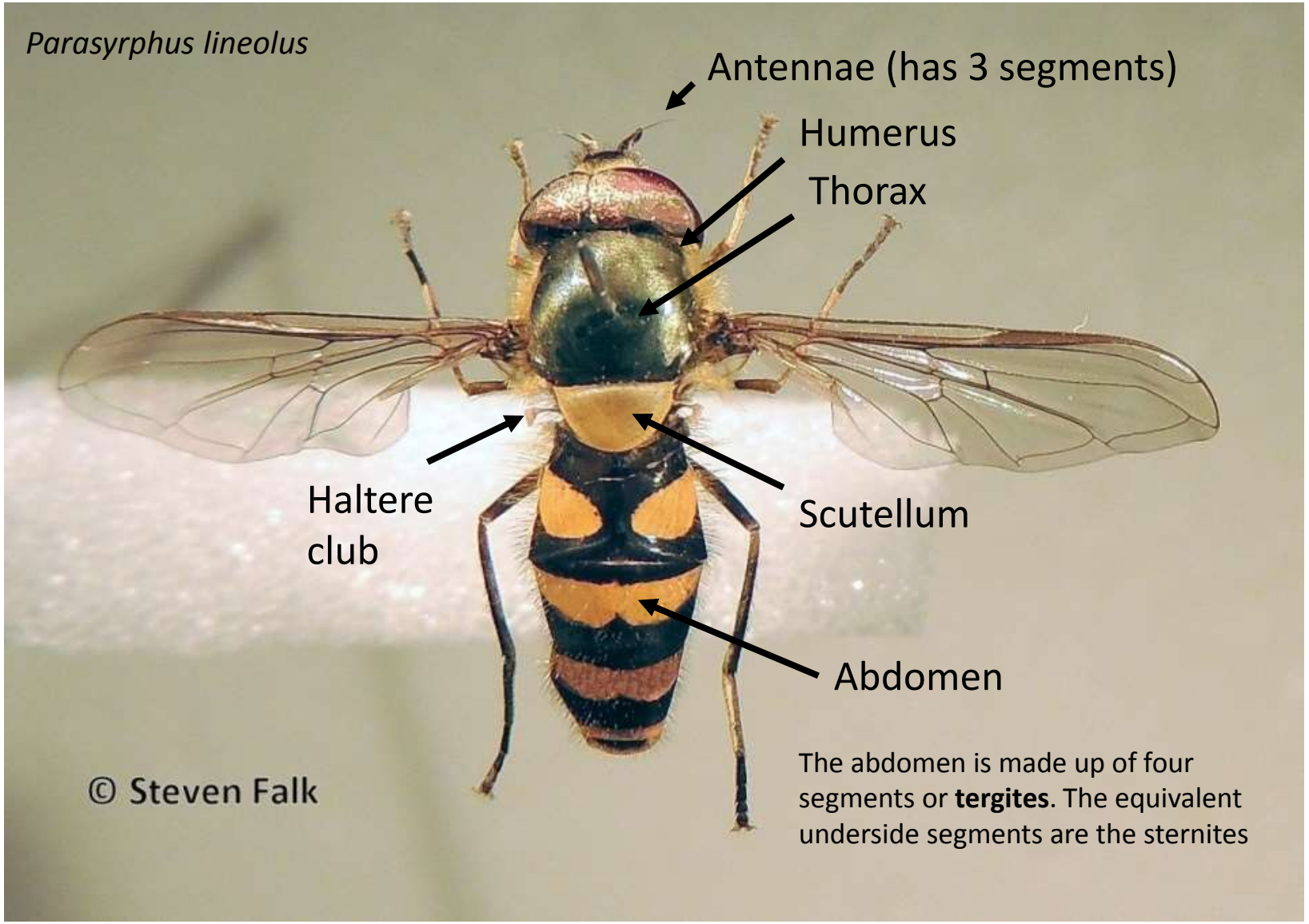


This book provides an excellent introduction to hoverflies

Huge thanks to all those who have agreed that their photographs can be used to promote the identification and recording of hoverflies in Ireland.

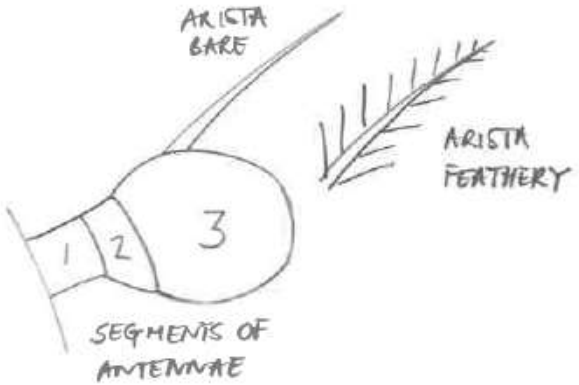
Special thanks are extended to Steven Falk: https://www.flickr.com/photos/63075200@N07

HOVERFLY FEATURES MENTIONED IN THIS GUIDE



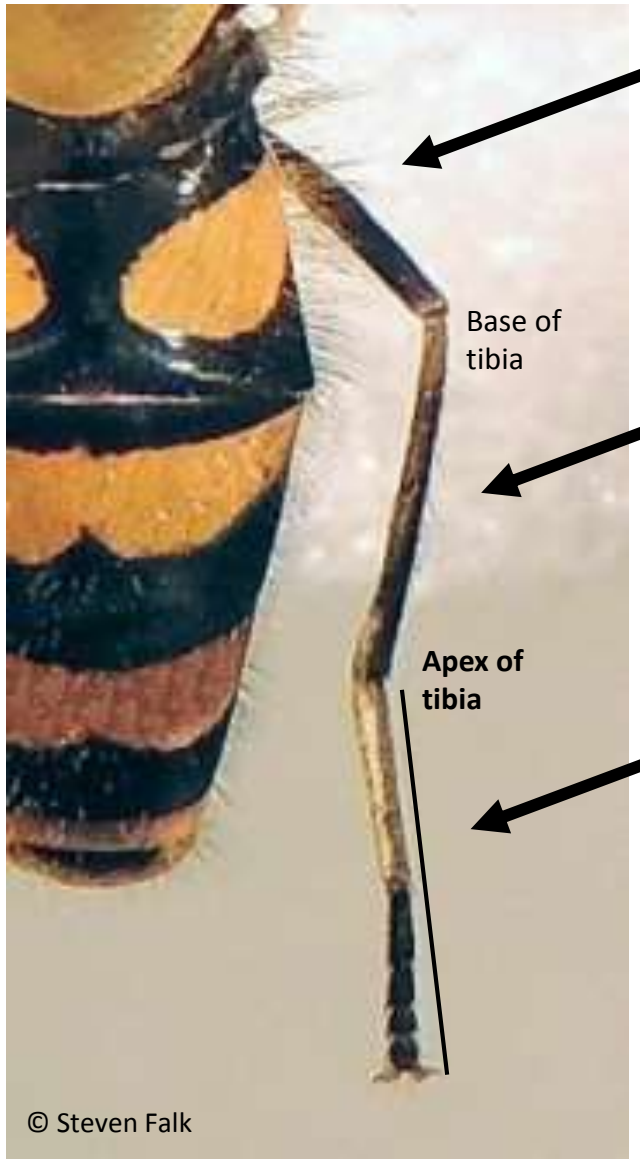
The abdomen is made up of four segments or **tergites**. The equivalent underside segments are the sternites

Segments of antennae



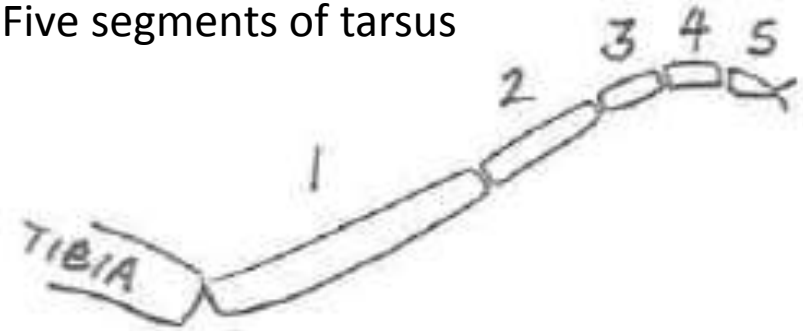
For the purposes of this guide thorax refers to the mesoscutum

HOVERFLY FEATURES MENTIONED IN THIS GUIDE

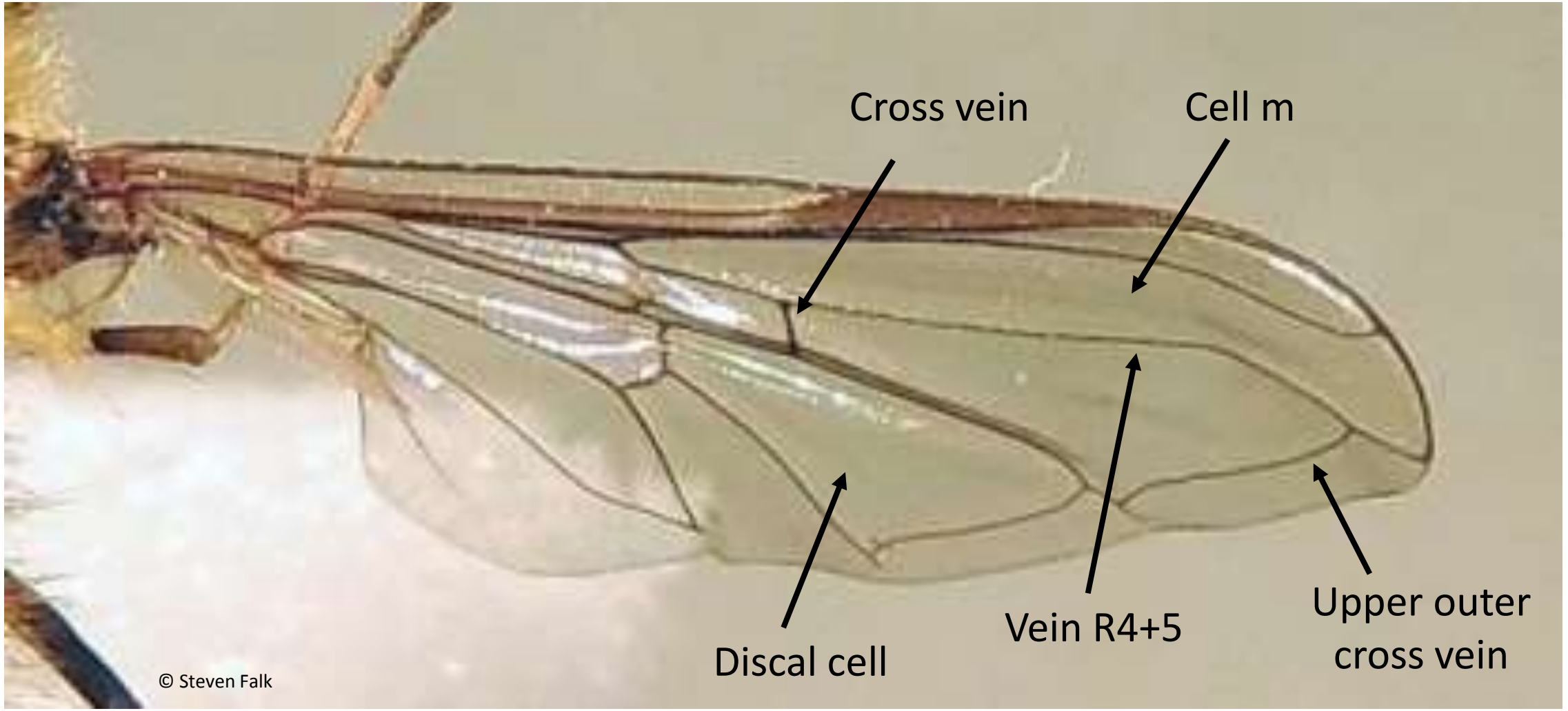


The femur is attached to the thorax by the coxa

Five segments of tarsus



HOVERFLY FEATURES MENTIONED IN THIS GUIDE



MALES AND FEMALES

Syrphus ribessii male

If the eyes meet you can be sure your hoverfly is a male

Syrphus ribessii female

If the eyes don’t meet the sex depends on the genus, but is most often a female

GENERA WITH DISTINCTIVE FEATURES

MUST BE USED SEQUENTIALLY
Brackets indicate number of species

SUMMARY

1. Long snout

Rhingia campestris

2. Unique abdominal markings

Episyrphus balteatus

3. Feathery antennae (arista plumose)

Sericomyia (2)
Arctophila superbiens
Volucella (2)

4. Elongate antennae – longer than head

Chrysotoxum (4)
Microdon (3)

5. Narrow waist

Doros profuges
Baccha elongata
Neoascia (5)
Sphegina (3)

6. Vein R4+5 looped

Lapposyrphus lapponicus
Megasyrphus erraticus
Anasimyia (4)
Parhelophilus (2)
Helophilus (3)
Myathropa florea
Didea (2)
Merodon equestris
Eumerus (2)
Eristalinus (2)
Eristalis (6)

GENERA WITH DISTINCTIVE FEATURES

Brackets indicate number of species

7. Thorax with longitudinal yellowish stripes down each side

Xanthogramma citrofasciatum
Sphaerophoria (7)

8. Abdomen with whitish markings on the 2nd segment, larger than on other segments

Leucozona (3)

9. Sides of thorax grey + enlarged hind femur

Tropidia scita
Syritta pipiens

10. Thorax with grey stripes, abdomen metallic

Ferdinandea cuprea

11. Thorax grey, legs and abdomen orange-brown ('fly'-like)

Brachyopa (2)

12. Black hoverfly with red segments on the abdomen

Brachypalpoides lentus

GENERA WITH DISTINCTIVE FEATURES

Brackets indicate number of species

13. Grey abdominal markings and orange antennae. Associated with Wild Garlic.

Portevinia maculata

14. Thorax and/or abdomen metallic

Lejogaster (2)
Orthonevra (2)
Riponnensia splendens
Melanogaster (2)
Chrysogaster (3)

15. Hairy hoverfly (bee mimic)

Criorhina (3)
Erizona syrphoides
Brachypalpus laphriformis
Cheilosia illustrata
Cheilosia chrysocoma

GENERA THAT DON'T HAVE DISTINCTIVE FEATURES

If the front of thorax is clearly visible & the humeri are hairy follow through 16-18:

16. Cross vein R-M meets discal cell at or beyond the middle of the cell. Eyes bare

Chalcosyrphus nemorum
Xylota (6)

17. Cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs

Trichopsomyia flavitarse
Pipizella *viduata*
Heringia (2)
Pipiza (5)

18. Cross vein R-M meets discal cell before the middle of the cell. Eyes and face not flat, can be hairy or hairless

Cheilosia (19)

GENERA THAT DON'T HAVE DISTINCTIVE FEATURES

If the head is concave & the humeri are obscured but bare follow through 19-21:

19. Face and scutellum black (can look metallic)

Xanthandrus *comtus*
Melanostoma (2)
Platycheirus (22)

20. Tiny black flies

Paragus (2)

21. Black & yellow striped hoverflies

Scaeva (2)
Dasysyrphus (5)
Eupeodes (5)
Syrphus (4)
Parasyrphus (6)
Epistrophe (3)

Meliscaeva (2)
Meligramma (2)
Melangyna (5)

Note that a few species can be black and grey/white striped

GENERA THAT HAVE DISTINCTIVE FEATURES

1. DISTINCTIVE FEATURE: **Long snout (1 genus)**

Rhingia campestris

Flight period: May-September

Size: Medium

Habitat: Hedgerows, clearings, tracksides

Distribution: Common and widespread

Notes: Larvae feed in cow dung

2. DISTINCTIVE FEATURE: **unique abdominal markings (1 genus)**

Episyrphus balteatus

- There are many other black and yellow striped hoverflies in Ireland, but none with this particular banding pattern. With a little experience it becomes very distinctive

Flight period: February – November, with a number of overlapping generations

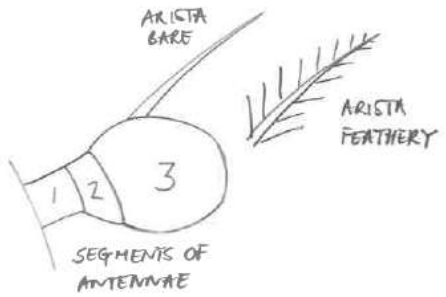
Size: Medium

Habitat: Across habitats; found as frequently in ecosystem conditions highly modified by human activities as elsewhere

Distribution: Widespread & very common

Notes: Highly migratory; larvae are aphid predators and can be important biological control agents of cereal crops

3. DISTINCTIVE FEATURE: **Feathery antennae (3 genera)**



* Note that some other species can have hairs on the arista but these are not distinctly feathery

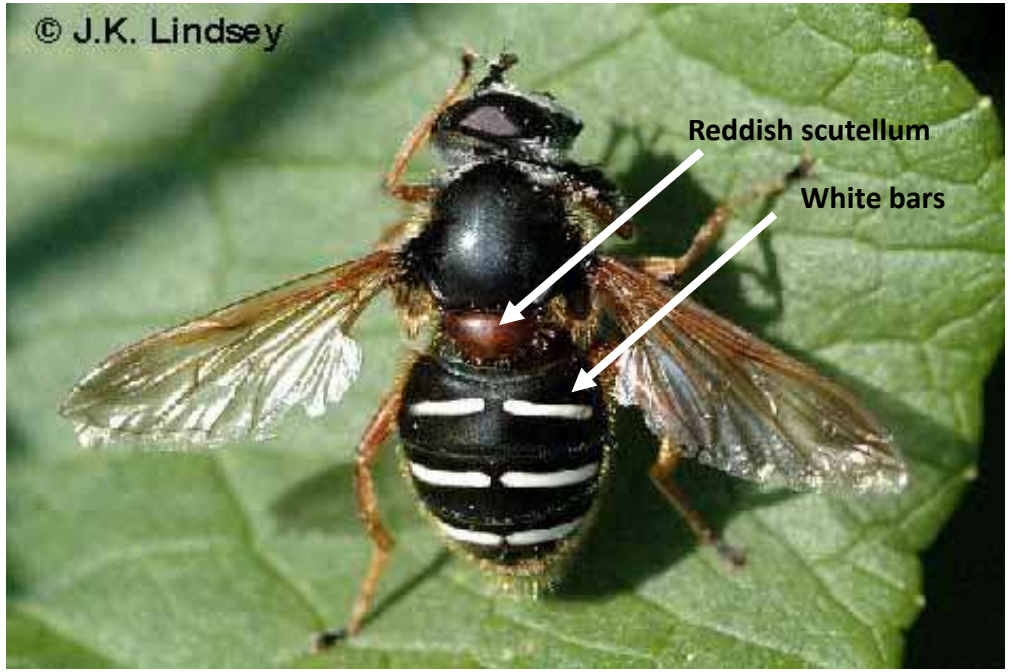
Feathery antennae (arista plumose)

- Black abdomen with white or yellow bars → *Sericomyia* (2 species)
- Hairy hoverfly with ginger thorax → *Arctophila superbiens*
- Otherwise → *Volucella* (2 species)

3. DISTINCTIVE FEATURE: **Feathery antennae (3 genera)**

Black abdomen with white or yellow bars

Sericomyia (2 species)



Sericomyia lappona

- Wasp mimics

Sericomyia silentis: 5-9; large; wetland/forest; common. Dark scutellum and abdomen with yellow bars

Sericomyia lappona: 5-9; large; wetland/forest; widespread. Reddish scutellum and abdomen with white bars.

Sericomyia silentis

3. DISTINCTIVE FEATURE: **Feathery antennae (3 genera)**

Hairy hoverfly with ginger thorax

Arctophila superbiens

- Hairy bumblebee mimic
- No black hairs on the abdomen
- Late summer/autumn species

Flight period: end July - October

Size: Large

Habitat: Wetland/forest; near springs, wet flushes and streams

Distribution: Widespread, probably under-recorded

Notes:

3. DISTINCTIVE FEATURE: **Feathery antennae (3 genera)**

Otherwise; variable

Volucella (2 species)

Volucella pellucens

Volucella pellucens: 5-10; large; deciduous woodland, scrub; widespread & common. Body mainly black with interrupted white band on abdominal tergite 2. Dark patches on the wings. Larvae occur in wasps nests. *Note*: Don't confuse with *Leucozona lucorum* which has orange hairs on thorax and a yellow scutellum.

Volucella bombylans: 5-9; large; across habitats; widespread & common. Hairy hoverfly, that has two forms – one mimics the white tailed bumblebee and the other the red tailed bumblebee. Larvae occur in bumblebee nests.

Volucella bombylans – both forms

4. DISTINCTIVE FEATURE: **Elongate antennae – antennae longer than head (2 genera)**

Chrysotoxum (4 species)

- Wasp mimics

C. bicinctum

C. festivum

C. fasciatum

C. cautum

Thorax with longitudinal yellow stripes at sides

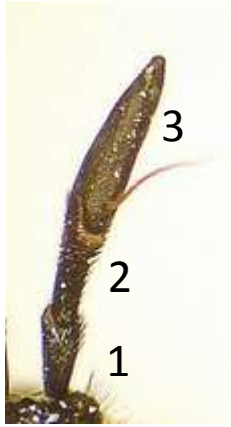
Chrysotoxum bicinctum: 5/6-9; large; wide variety of lowland habitats; widespread & common. Look for the combination of distinctive markings on the abdomen (two widely spaced yellow bands) and dark areas on the wings.

Chrysotoxum festivum: 5-7; large; occurs almost exclusively on sites with undisturbed, well-drained, mineral soils, mainly limestone karst grasslands and coastal dune systems; southern species, occasional. Yellow stripes on the abdomen often don't go all the way to the edge (can be variable). Antennal segment 3 shorter than 1 plus 2.

C. festivum © Steven Falk

Chrysotoxum fasciatum: 5-9; large; in clearings and along tracksides in deciduous woodland & conifer plantations, and is as frequently encountered along streams in moorland, or along margins of bog and fen; occasional. Antennal segment 3 much longer than 1 plus 2.

Chrysotoxum cautum: 5-7; large; deciduous forest and scrub; unimproved grassland and lightly grazed grassland which has not been subject to ploughing/tillage; one Irish record from Co. Donegal in 1919. Antennal segment 3 as long as, or slightly shorter than 1 plus 2.



C. cautum© Steven Falk

4. DISTINCTIVE FEATURE: **Elongate antennae – antennae longer than head (2 genera)**

Microdon (3 species)

M. myrmicae - mutabilis

- Rare
- Ant stealth predator
- Found only in habitats with ants nests

Thorax without yellow stripes

Microdon analis: 5-6/7; medium; mature deciduous and coniferous forest; in Ireland so far only found in association with inhabited nests of ants (black *Lasius* species) in open areas of low altitude *Molinia* heath, within or edging deciduous woodland; recorded only from SW Ireland Dark scutellum

Microdon mutabilis: 5-7; medium; unimproved permanent pastures; occasional, particularly in limestone/karst areas. Reddish-brown scutellum. Adults cannot be separated from *M. myrmicae*.

Microdon myrmicae: 5-6; medium; in Ireland occurs in association with fen and the margins of raised bog and cutover bog (including blanket bog) where ants nests are present; rarely recorded. Reddish-brown scutellum. Adults cannot be separated from *M. mutabilis*.

M. analis

5. DISTINCTIVE FEATURE: **Narrow waist (4 genera)**

* Note that these two species can also appear slightly narrow-waisted: *Sphaerophoria rueppelli* & *Anasimyia contracta*

Narrow waist

- Thorax with longitudinal yellow stripes — *Doros profuges*
- Small hoverfly, hind femur not enlarged — *Baccha elongata*
- Small hoverfly, hind femur enlarged — *Neoascia* (5 species); *Sphegina* (3)

5. DISTINCTIVE FEATURE: **Narrow waist (4 genera)**

Thorax with longitudinal yellow stripes

Doros profuges

- Early species with a very short flight period
- Rare

Flight period: end May - June

Size: Large

Habitat: *Quercus/Fraxinus* (both mature and scrub) and *Corylus* scrub, on well-drained sites which have been forested for a considerable period of time

Distribution: Rare; recorded only from Country Clare

Notes:

5. DISTINCTIVE FEATURE: **Narrow waist (4 genera)**

Small hoverfly, hind femur not enlarged

Baccha elongata

Flight period: April/June and July/September or October

Size: Medium

Habitat: Woodland, hedgerows, farms, gardens

Distribution: Widespread and fairly common

Notes:

5. DISTINCTIVE FEATURE: **Narrow waist (4 genera)**

Neoascia (5 species)

Upper and lower marginal cross veins darkened

Segments 4 & 5 of fore tarsi yellow

Upper and lower marginal cross veins clear

- Small black hoverflies, ~5mm long
- Slightly smaller than *Sphegina* and with a less expanded hind femur
- Males and females have a slightly different shape
- **Difficult to identify to species**

Small hoverfly, hind femur enlarged

Upper and Lower marginal cross-veins darkened:

Neoascia podagrica: 4-10; small; wetlands; common & widespread**.** Yellow markings on tergite 2 straight or slightly oblique.

Neoascia obliqua: 4-8; small; streamside within forests; very rare**.** Yellow markings on tergite 2 like an inverted V (on right; male).


© Steven Falk

Upper and Lower marginal cross-veins clear:

Neoascia geniculata: 5-9; small; wetland, primarily fen; occasional**.** Third antennal segment short, barely longer than wide. Segments 4 and 5 of fore tarsi black.

Neoascia meticulosa: 4-6; small; wetland, streams and pools in fen and marsh; occasional**.** Third antennal segment at least 1.5 times longer than wide. Segments 4 and 5 of fore tarsi predominantly yellow. Apex of hind femur yellow.


© Steven Falk

Neoascia tenur: 4-9; small; wetlands; widespread**.** Third antennal segment at least 1.5 times longer than wide. Segments 4 and 5 of fore tarsi predominantly yellow. Apex of hind femur black.

5. DISTINCTIVE FEATURE: **Narrow waist (4 genera)**

Sphegina (3)

- Medium sized black hoverflies, ~7mm long
- Slightly larger than *Neoascia* and with a hind femur that is more expanded
- **Difficult to identify to species**

Small hoverfly, hind femur enlarged

Sphegina elegans: 6-9; medium; humid deciduous forest (Fagus and Quercus); occasional Sternite 1 oval. Humerus pale, yellowish or reddish.

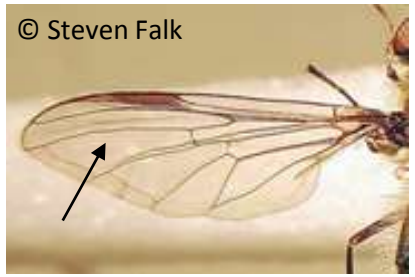
Sphegina clunipes: 5-9; medium; coniferous and deciduous forest; widespread Sternite 1 oval. Humerus dark brown or black.

Sphegina sibirica: 5-8; medium; Picea forest and plantations; known from one locality in Ireland Sternite 1 incomplete.

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Vein R4+5 looped

Vein R4+5 dipped



Vein R4+5 straight

- Vein R4+5 looped
  - Vein R4+5 dipped rather than distinctly looped
    - *Lapposyrphus lapponicus*
    - *Megasyrphus erraticus*
  - Thorax with longitudinal stripes
    - Hind tibia two dark bands — *Anasimyia* (4)
    - Hind tibia one dark band, orange antennae — *Parhelophilus* (2)
    - Hind tibia one dark band, black antennae — *Heliophilus* (3)
  - Grey markings on thorax (can look like batman symbol) — *Myathropa florea*
  - Abdomen broad and flattened with oblique band — *Didea* (2)
  - Upper outer cross vein re-entrant
    - Hairy bumblebee mimic — *Merodon equestris*
    - Darker bald hoverfly — *Eumerus* (2)
  - Cell m closed before wing margin
    - Eyes with dark spots — Eristalinus (2)
    - Eyes without dark spots — Eristalis (8)

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Lapposyrphus lapponicus

- Rare in Ireland
- Highly migratory

Vein R4+5 dipped rather than looped

Flight period: March/November, but most frequent in the period June/August

Size: Large

Habitat: Forest, both coniferous and deciduous

Distribution: Very rare. The sole Irish record is from a conifer plantation in County Kerry.

Notes:

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Megasyrphus erraticus

- Distinct black strip on undersides of abdominal segments
- Eyes distinctly & densely hairy
- Take care not to confuse with *Syrphus*, *Parasyrphus* or *Epistrophe*

Vein R4+5 dipped rather than looped

Flight period: May - July

Size: Large

Habitat: Conifer forest and plantations. In Ireland found in association with conifer plantations established for commercial forestry purposes.

Distribution: occasional

Notes:

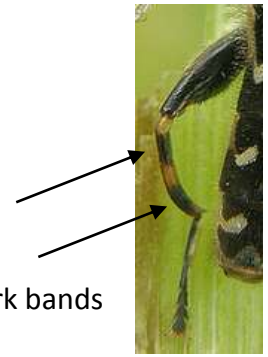
6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Anasimyia (4)

A. contracta

A. transfuga

- Hind tibia with two dark bands
- Antennae orange
- **Difficult to identify to species**



© Steven Falk

Thorax with longitudinal stripes

Anasimyia lineata: 5-8; medium; wetlands; widespread Face projects forwards to a point. Best viewed side-on and with reference specimens for comparison.

A. lineata

Anasimyia contracta: 5-6 & 8-9; medium; wetland with *Typha*; occasional Face less projecting. Tergites 2 and 3 with hook shaped markings. Tergite 2 broader at top than base. Very similar to *A. transfuga.* Males can appear narrow-waisted.

Anasimyia transfuga: 5-7; medium; standing water with *Scirpus* or *Sparganium*; rare Face less projecting. Tergites 2 and 3 with hook shaped markings. Tergite 2 parallel sided. Very similar to *A. contracta.*

Anasimyia lunulata: 5-8; medium; wetland; occasional Face less projecting. Tergites 2 and 3 with inwardly pointing markings but not as a hook.

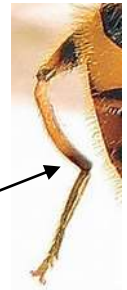
A. lunulata

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Parhelophilus (2)

Parhelophilus versicolor

- Hind tibia with one dark band
- Antennae orange



© Steven Falk

Thorax with longitudinal stripes

Parhelophilus versicolor: 5-8; medium; wetland/freshwater; fen, marsh and reed beds with patches of standing water, also along canals and water-filled ditches; occasional**.** Apex of fore tibia yellow. Thorax with blackish-brown longitudinal stripes. Scutellum not shiny.

Parhelophilus consimilis: 6-7/8; medium; wetland; pools in fen, transition mire, the lagg edge of raised bog and abandoned, cut-over bog; occasional**.** Apex of fore tibia dark. Thorax with black longitudinal stripes. Scutellum shiny.

Parhelophilus consimilis

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Heliophilus (3)

H. trivittatus

- Hind tibia with one dark band
- Antennae black
- Yellow face

© Steven Falk

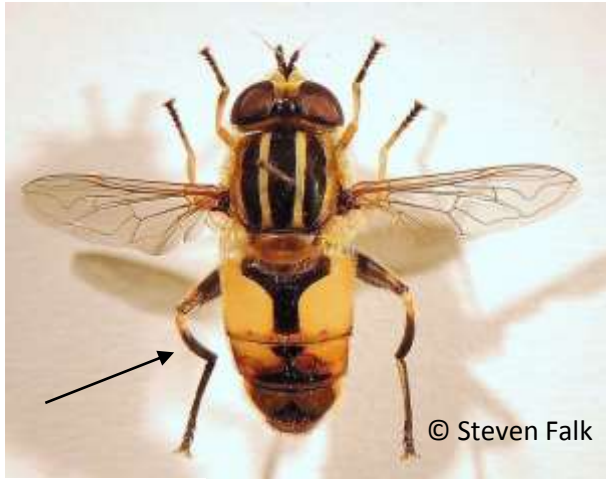
Thorax with longitudinal stripes

Helophilus trivittatus: 5-10; large; wetland/open ground; river margins, seasonally flooded humid grassland and salt-marsh; occasional Face entirely yellow

Helophilus pendulus: 4-10; large; freshwater/wetland; widespread & common Face with a black stripe. Hind tibia with lower third black.

Helophilus hybridus: 5-8/9; large; wetland/freshwater; widespread & common Face with a black stripe. Hind tibia with lower half or more black.

H. pendulus



H. hybridus

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Myathropa florea

- Batman symbol not always obvious
- Most similar to *Eristalis* – check the wings. In *Eristalis* cell m is closed before the wing margin but here it is open

Grey markings on thorax (can look like batman symbol)

Flight period: May/October, with peaks in June and August

Size: Large

Habitat: Deciduous forest; also in fen carr; to some extent anthropophilic, occurring in humid pasturage and suburban gardens

Distribution: Widespread

Notes:

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Didea (2)

D. fasciata

- Second band entire in both Irish species
- Note that these species will not keep this colouration when dead

Abdomen broad and flattened with oblique band

Didea fasciata: 5-9; large; deciduous and coniferous forest and conifer plantations; occasional. Abdomen with yellow markings. Yellow haltere club.

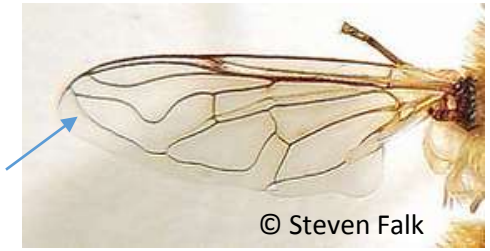
Didea alneti: 5-8/9; large; conifer forest and plantation; extremely rare, one Irish record from 1934. Abdomen with greenish markings.

D. alneti

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Merodon equestris

Upper outer cross vein re-entrant



Upper outer cross vein not re-entrant

- Furry hoverfly
- Hind tibia black
- <u>Various colour forms occur</u>

Upper outer cross vein re-entrant

Flight period: May/July (plus April in southern Europe and August at higher altitudes)

Size: Large

Habitat: Deciduous forest/open ground; occurring also in suburban gardens and on horticultural land

Distribution: Widespread

Notes:

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Eumerus (2)

Eumerus funeralis

- Dark balder hoverfly
- Large hind femur
- **Note**: Vein R4+5 is dipped rather than looped in *E. funeralis*
- The larvae live in bulbs or rhizomes
- **Two species are hard to separate**

Upper outer cross vein re-entrant

Eumerus funeralis: 4-9; small-medium; in Ireland found in suburban gardens or land used by horticulturalists for production of ornamental bulbiferous plants. It has almost certainly been transported to Ireland with bulbs and apparently continues to be dependent upon human activities for its survival here; rare***.***

Eumerus strigatus: 5-9; small-medium; coastal grassland, including, on occasion, farmland and artificial habitat like suburban gardens; widespread but largely confined to the southern half of the island***.***

Eumerus strigatus

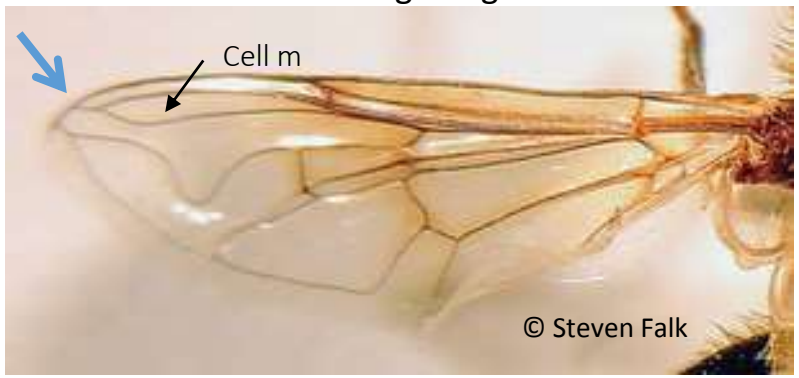
6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Eristalinus (2)

- Eyes with dark spots

Cell m closed before wing margin

Cell m closed before wing margin



Eristalinus aeneus: 4-9; medium; freshwater in coastal locations; widespread**.** Eye spotted but only hairy in upper part.

Eristalinus sepulchralis: 4-9; medium; wetland, often associated with animal farming; widespread**.** Eye spotted and entirely hairy.

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Eristalis (8)

Eristalis tenax

Eristalis nemorum

- Eyes unicolorous (without dark spots)

Cell m closed before wing margin

One *Eristalis* species is distinctive as it is a bumblebee mimic

Eristalis intricarius: 4-8; large; wetlands; common & widespread**.** Bumblebee mimic. Hind tibia partly pale. Scutellum yellow. The only other bumblebee mimic with a looped vein is *Merodon equestris* (upper outer cross vein re-entrant).

6. DISTINCTIVE FEATURE: **Vein R4+5 looped (11 genera)**

Eristalis cryptarum: 5-9; large; wetland/freshwater; very rare. Antennae yellow, all tibia yellow/orange.

Eristalis pertinax: 2-11; large; across habitats, including gardens; common. Antennae dark, fore and mid tarsi yellow.

E. pertinax

E. horticola

Cell m closed before wing margin

Antennae dark, fore and mid tarsi at least partly dark:

Eristalis tenax: 2-11; large; across habitats, including gardens; common. Face with a wide dark central stripe (one third width of face).

Eristalis nemorum: 4-9; medium-large; wetland/forest; common. Face with a narrow dark central stripe.

Eristalis abusiva: 5-10; medium; wetland; widespread. Face almost entirely yellow. Hairs on arista short.

Eristalis arbustorum: 4-10; medium; across habitats, including gardens; common. Face almost entirely yellow. Hairs on arista long. Wings clear apart from stigma.

Eristalis horticola: 5-9; medium-large; wetland/forest; common. Face almost entirely yellow. Hairs on arista long. Wings with slight darkening below stigma.

7. DISTINCTIVE FEATURE: **Thorax with longitudinal yellow stripes (2 genera)**

Xanthogramma citrofasciatum

- Short flight period
- Adults often settle on the nest mounds of ants of the genus *Lasius*

Medium sized species, wings partly darkened

Flight period: May-June

Size: Medium

Habitat: unimproved grassland, where large, stable ant colonies can develop

Distribution: Rare, Irish records of this species form a band across central Ireland from Dublin south to Kilkenny in the east and Clare to Limerick in the west.

Notes:

7. DISTINCTIVE FEATURE: **Thorax with longitudinal yellow stripes (2 genera)**

Sphaerophoria (7)

S. scripta

S. philantha

- Medium-sized narrow hoverfly
- Yellow face
- Yellow scutellum
- **Species difficult to identify**

Note: Within this section watch out for *Dasysyrphus albostriatus* which has yellow markings around the wing base

Medium-sized narrow species, wings not darkened

***Sphaerophoria* species are very difficult to identify and generally require looking at male genital characteristics:**

Sphaerophoria batava: 5-9; medium; forest; rare.

Sphaerophoria fatarum: 5/6-8/9; medium; unimproved, oligotrophic grassland, limestone pavement grassland, moor and blanket bog; widespread.

Sphaerophoria interrupta: 5-9; medium; open ground/wetland; widespread.

Sphaerophoria loewi: 6-8; medium; within beds of emergent reeds and Scirpus, in Ireland its stronghold is probably coastal lagoons; very rare.

Sphaerophoria philantha: 5-9; medium; ericaceous heath and moor, oligotrophic *Molinia* grassland, partly-drained blanket bog, dune grassland; widespread.

Sphaerophoria rueppelli: 4-10; medium; salt-marsh meadows; one known location in Ireland. This species can look narrow-waisted.

Sphaerophoria scripta: 5-9; medium; across habitats, including gardens; widespread, not commonly recorded. Fairly distinctive because the abdomen is longer than the wings and the markings are usually broad yellow bands.

8. DISTINCTIVE FEATURE: **Abdomen with large white markings on second segment (1 genus)**

Leucozona (3)

L. laternaria

- Wings can be cloudy below stigma
- Woodland hoverfly
- Often found on Hogweed

Note: *Volucella pellucens* has large whitish markings and feathery antennae

Leucozona lucorum: 5-7; medium; deciduous forest, including scrub woodland & hedgerows; common**.** Poor bumblebee mimic. Orange hairs on thorax. Pale scutellum. Dark wing cloud.

Leucozona laternaria: 6-8; medium; deciduous forest/wetland; widespread**.** Scutellum dark

Leucozona glaucia: 5-9, with peak in 7/8; medium-large; forest; widespread**.** Female with blue-grey markings. Scutellum yellow

L. lucorum

L. glaucia

9. DISTINCTIVE FEATURE: **Sides of thorax with grey & enlarged hind femur (2 genera)**

Tropidia scita

- Abdomen with orange

Hind femur with triangular tooth

Flight period: May-August, with occasional specimens on into September

Size: Medium

Habitat: Wetland species, but doesn't occur in farmland & parks/gardens

Distribution: Widespread

Notes:

9. DISTINCTIVE FEATURE: **Sides of thorax with grey & enlarged hind femur (2 genera)**

Syritta pipiens

Hind femur without triangular tooth

Flight period: March – November

Size: Medium

Habitat: Wetland species, occurs in farmland & parks/gardens

Distribution: Widespread

Notes: Low-flying, rarely more than 1m from the ground

10. DISTINCTIVE FEATURE: **Thorax with longitudinal grey stripes, abdomen metallic (1 genus)**

Ferdinandea cuprea

- Black bristles on sides of thorax

Flight period: April-September

Size: Medium-large

Habitat: Forest; deciduous forest with mature and over-mature trees,

Distribution: Widespread

Notes:

11. DISTINCTIVE FEATURE: **Thorax grey, legs and abdomen orange-brown (1 genus)**

Brachyopa (2)

B. insensilis

- 'Fly like'
- *B. insensilis* found on sap runs or vegetation nearby
- **Difficult to ID to species**

Brachyopa insensilis: 5-6; medium; both conifer and deciduous forest, over-mature Abies, *Quercus* and *Fagus* forest with senescent trees; very rare**.** Arista almost bare. Third antennal segment has no pit.

Brachyopa scutellaris: 4-6; medium; forest; rare**.** Arista with short hairs. Third antennal segment has kidney shaped pit.

B. scutellaris

12. DISTINCTIVE FEATURE: **Black hoverfly with red segments on the abdomen (1 genus)**

Brachypalpoides lentus

- Irish species with red on abdomen & entirely black legs (distinguishes it from *Xylota* species)

Flight period: April - June

Size: Large

Habitat: In Ireland, primarily associated with mature/overmature oak (*Quercus*) woodland, but will utilise old beech (*Fagus*) when this is available.

Distribution: Occasional

Notes:

Note *Platycheirus granditarsus* can look superficially similar

13. DISTINCTIVE FEATURE: **Grey abdominal markings and orange antennae. Associated with wild garlic (1 genus)**

Portevinia maculata

- Associated with Wild Garlic, rarely found far from this plant
- Antennae orange
- Square grey markings on abdomen
- Eyes bare

Flight period: end April - June

Size: Medium

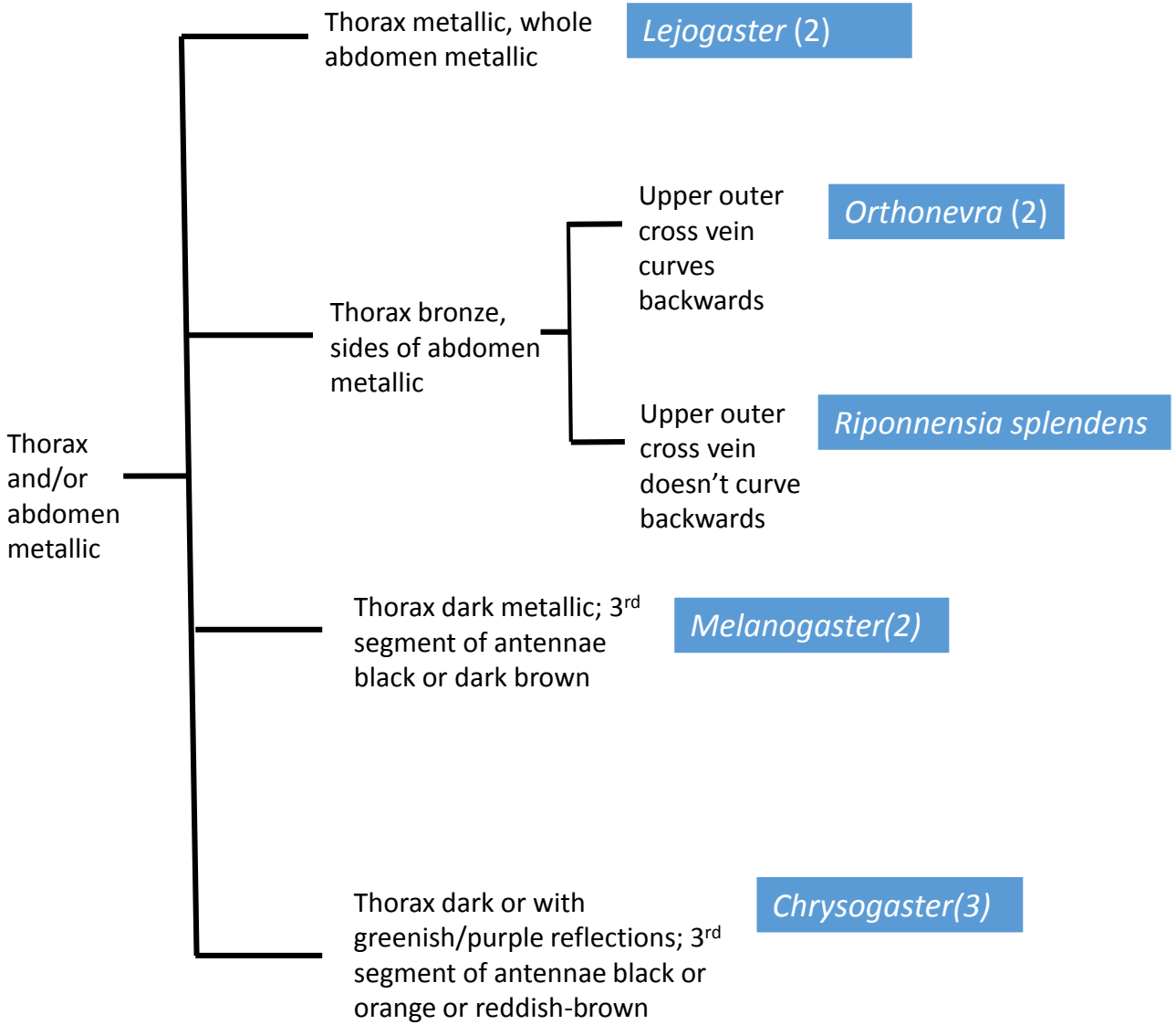
Habitat: Within and along the edge of humid deciduous woodland harbouring large stands of *Allium ursinum.* Can be found with the introduced *A. triquetrum*, where stands of this plant occur in humid, semi-shaded situations.

Distribution: Widespread

Notes: Take care not to confuse with male *Cheilosia semifasciata* below (has hairy eyes)

Cheilosia semifasciata

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**



Note these genera are difficult to distinguish

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**

Lejogaster (2)

L. tarsata

- Small-medium hoverfly 4-6mm
- Upper outer cross vein doesn't curve backwards
- **Difficult to ID to species**

Thorax metallic, whole abdomen metallic

Lejogaster metallina: 5-6 & 8-9; small-medium; freshwater/wetland; common**.** Males have all black antennae. In females the third antennal segment is as broad as long.

Lejogaster tarsata: 5-8; small-medium; spring-fed pools and small brooklets; rare**.** Tends to have more bluish reflections. Antennae of males partly yellow. In females the third antennal segment is longer than broad.

L. metallina

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**

Thorax bronze, sides of abdomen metallic

Orthonevra (2)

O. nobilis

- Small-medium hoverfly 4-6mm
- Upper outer cross vein curves backwards

Orthonevra nobilis: 5-8; small-medium; freshwater/wetland/forest; occasional**.** Legs entirely black (knees sometimes yellowish)

Orthonevra geniculata: 4-5; small-medium; wetland/forest; occasional**.** Legs with distinctly yellow areas

O. geniculata

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**

Riponnensia splendens

- Medium sized hoverfly 5-7mm
- Upper outer cross vein doesn't curve backwards

Thorax bronze, sides of abdomen metallic

Flight period: mid June-beginning September.

Size: Medium

Habitat: Wetland/forest

Distribution: Widespread

Notes:

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**

Melanogaster(2)

M. aerosa

- Small-medium hoverfly 5-6mm
- 3rd segment of antennae black or dark brown
- Upper outer cross vein doesn't curve backwards
- **Difficult to identify to species**

Thorax dark metallic

Melanogaster aerosa: 5-9; small-medium; wetland; acid fen and valley bog lag, and flushes, pools and small streams in moorland; occasional**.** Males - hairs on main part of thorax long, dense and black. Females - short yellow hairs on main part of thorax entirely adpressed.

Melanogaster hirtella: 4-7; small-medium; wetland, fen, marsh, poorly-drained pasture and a wide range of waterside situations; common**.** Males - hairs on main part of thorax long, dense and yellowish brown. Females – main part of thorax with black, grey or yellow erect hairs.

M. hirtella

14. DISTINCTIVE FEATURE: **Small hoverfly with thorax and/or abdomen metallic (5 genera)**

Chrysogaster(3)

Chrysogaster coemiteriorum © Steven Falk

- Medium sized hoverfly 5-7mm
- 3rd segment of antennae black or orange or reddish-brown
- Upper outer cross vein doesn't curve backwards
- **Difficult to identify to species**

Thorax dark or with greenish/purple reflections

Chrysogaster solstitialis: 6-9; medium; wetland/deciduous forest, woodland streams and ponds; widespread**.** Wings distinctly darkened, blackish

Chrysogaster coemiteriorum: 6-9; medium; wetland; occasional**.** Wings yellowish basally. Need to compare with reference specimens of *C. virescens* for definite identification.

Chrysogaster virescens: end April-mid July; medium; forest/wetland; occasional**.** Wings clearer. Need to compare with reference specimens of *C. coemiteriorum* for definite identification.

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Chrysogaster virescens

Chrysogaster solstitialis

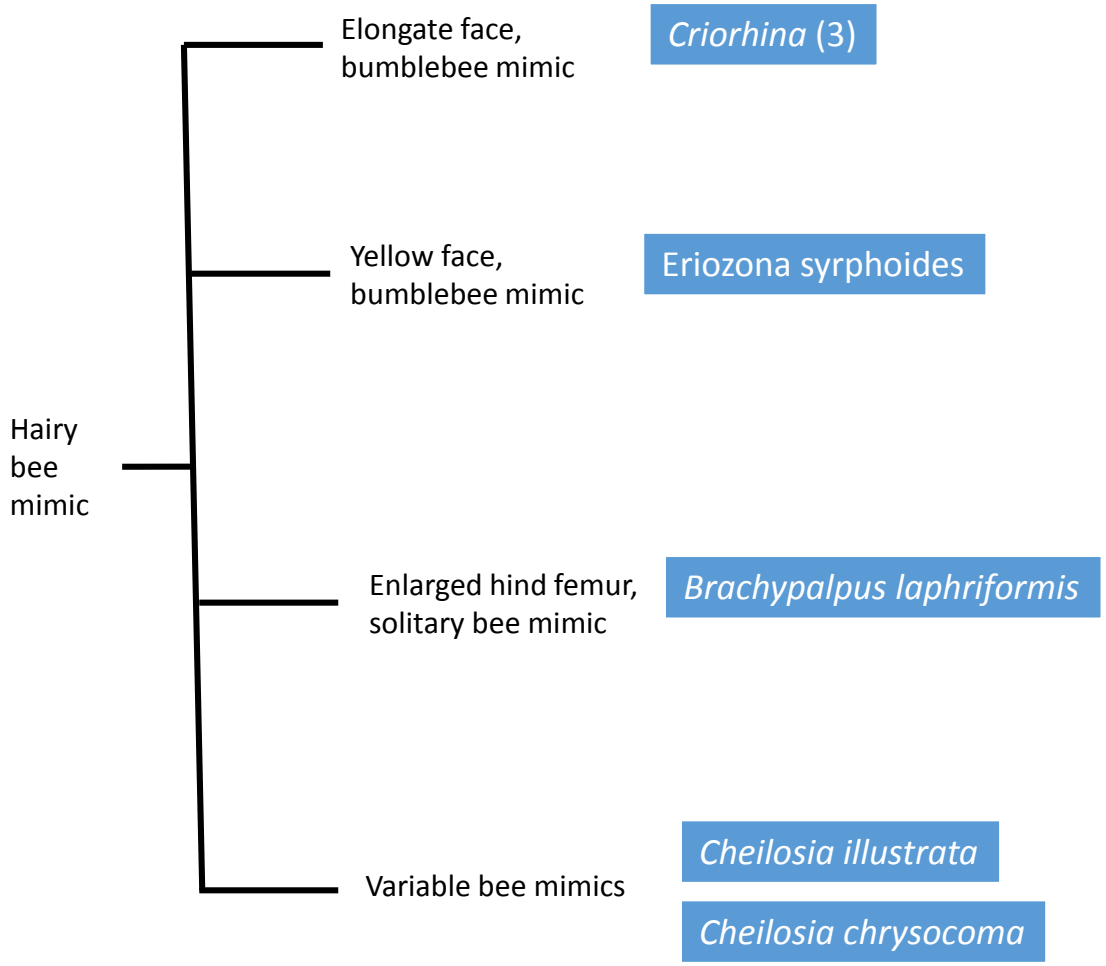
15. DISTINCTIVE FEATURE: **Hairy hoverfly (bee mimic) (4 genera)**

Criorhina berberina

Brachypalpus laphriformis

Eriozona syrphoides

Cheilosia chrysocoma



Note that many other *Cheilosia* species are hairy and could arguably be called bee mimics. These two are particularly so, making them more distinctive.

15. DISTINCTIVE FEATURE: **Hairy hoverfly (bee mimic) (4 genera)**

Criorhina (3)

C. berberhina

C. berberina var. *oxyacanthae*

C. floccosa

Elongate face, bumblebee mimic

Criorhina berberina: 5-7; large; forest with overmature trees; widespread**.** *C. berberina* has 2 colour forms. Hind femur not swollen. Sides of abdomen continuously hairy. Note: *C. berberina* var. *oxyacanthae* could be confused with *C. floccosa* or with *Arctophila superbiens*.

Criorhina floccosa: 4-6; large; deciduous forest with Oak, Elm; occasional**.** Hind femur not swollen. Distinct tufts of pale hair at top of abdomen (hairs on tergite 2 longer than those on tergite 3).

Criorhina ranunculi: 3-5; large; associated with overmature birch in Ireland; rare**.** Swollen hind femur; has several colour forms that mimic both red and white tailed bumblebees.

C. ranunculi

15. DISTINCTIVE FEATURE: **Hairy hoverfly (bee mimic) (4 genera)**

Eriozona syrphoides

- Yellow face
- Pale scutellum
- Wings cloudy below stigma

Yellow face, bumblebee mimic

Flight period: May - October, with peaks at end May/mid June and end August/beginning September

Size: Large

Habitat: Mature Picea/Abies forest and plantations. *E. syrphoides* is dependent upon aphids associated with conifer plantations in Ireland.

Distribution: Rare

Notes:

15. DISTINCTIVE FEATURE: **Hairy hoverfly (bee mimic) (4 genera)**

Brachypalpus laphriformis

- *Osmia* bee mimic
- Rare
- Underside of thorax between middle and hind leg is bare
- Enlarged hind femur

Enlarged hind femur, solitary bee mimic

Flight period: End May – End June

Size: medium-large

Habitat: Deciduous forest; over mature *Fagus* and *Quercus* forest with senescent trees and fallen, rotting timber

Distribution: Rare. The only Irish locality in the last 50 years is a fringe of deciduous woodland, including a few overmature beech and sycamore, edging young conifer plantation near Laragh (Wicklow)

Notes:

15. DISTINCTIVE FEATURE: **Hairy hoverfly (bee mimic) (4 genera)**

Cheilosia illustrata

Cheilosia chrysocoma

Variable bee mimics

Cheilosia illustrata: 5-9; medium-large; deciduous forest, meadows, hedgerows; common**.** Black face & black scutellum. Band of white hair on abdomen. Wings cloudy in the centre. Bumblebee mimic, but not a very good one.

Cheilosia chrysocoma: 4-6; medium; wetland/forest, swampy *Salix* scrub near water; occasional**.** Red orange hairs on thorax and abdomen. Eyes hairy. Spring species. Distinctive mimic of *Andrena fulva* (Tawny mining bee). This solitary bee was rediscovered from extinction in Ireland in 2012, the mimic is much more common!

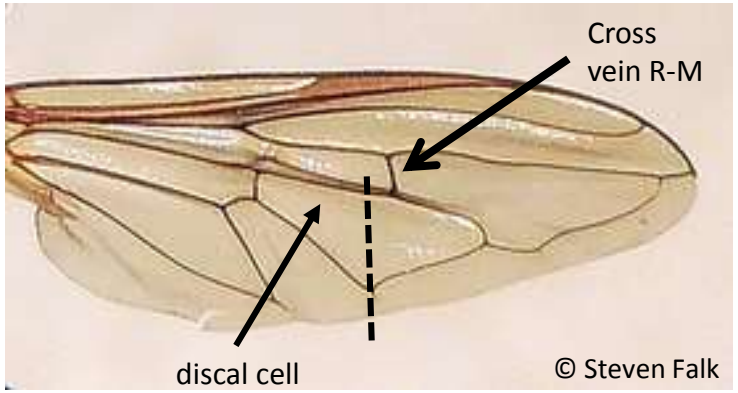
Note: that while these two species are relatively distinctive, many other *Cheilosia* species are hairy and could arguably be called bee mimics. This is particularly the case with *C. albiphila* and *C. grossa.*

GENERA THAT DON’T HAVE DISTINCTIVE FEATURES

HUMERI HAIRY

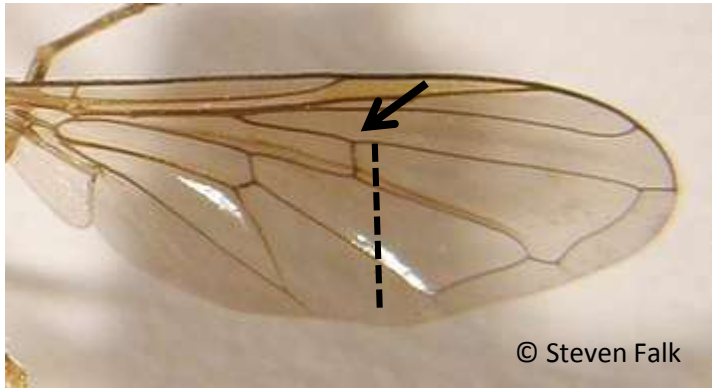
If the front of thorax is clearly visible & the humeri are hairy follow through 16-18:

cross vein R-M meets discal cell at or beyond the middle of the cell



16:
Chalcosyrphus nemorum
Xylota (6)

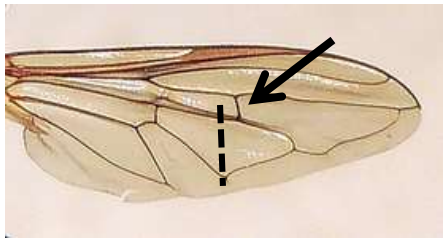
cross vein R-M meets discal cell before the middle of the cell



17: Eyes and face flat, both with long hairs:
Pipizella *viduata*
Trichopsomyia flavitarse
Pipiza (5)
Heringia (2)

18: Eyes and face not flat, can be hairy or hairless:
Cheilosia (19)

16. FEATURE: **Humeri hairy. Cross vein R-M meets discal cell at or beyond the middle of the cell. Eyes bare (2 genera)**



Chalcosyrphus nemorum

- Back legs nearly all black but not completely

Hairy underside to thorax between middle and hind legs

Flight period: Beginning May - end September

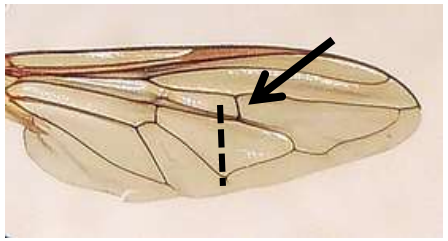
Size: Medium

Habitat: Associated with stands of small willow (*Salix*) species that include fallen and rotting trunks and branches, along the banks of lakes, streams and rivers

Distribution: Occasional

Notes: Take care not to confuse with *Xylota abiens*

16. FEATURE: **Humeri hairy. Cross vein R-M meets discal cell at or beyond the middle of the cell. Eyes bare (2 genera)**



Xylota (6)

- Slightly elongate
- Sawfly or spider-hunting wasp mimics

Bare underside to thorax between middle and hind legs

X. sylvarum has distinctive golden hairs towards the end of the abdomen (tergites 3+4)

Xylota sylvarum: 5-9; medium-large; forest, mainly deciduous; widespread, more common in south**.** Distinctive golden hairs towards the end of the abdomen on tergites 3 and 4.

16. FEATURE: **Humeri hairy. Cross vein R-M meets discal cell at or beyond the middle of the cell. Eyes bare (2 genera)**

Abdomen with a red or reddish-brown transverse stripe:

Xylota segnis: 5-9; medium; confer & deciduous forest, hedgerows, gardens; common. Distinguished from *X. tarda* by a double row of short black spines beneath the hind femur.

© Steven Falk

© Steven Falk

Xylota tarda: 5-8; medium; deciduous forest, often with overmature *Populus*; very rare. Very similar to *X. segn*is but without the double row of spines on the hind femur.

© Steven Falk

Bare underside to thorax between middle and hind legs

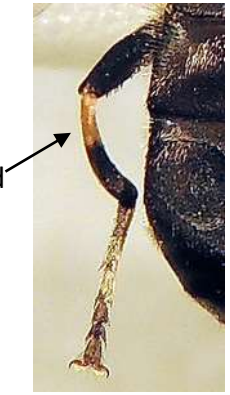
Abdomen without a red or reddish-brown transverse stripe, but can have a pair of spots:

Xylota abiens: 6-7; medium; wet Oak forest; very rare. Hind tibia with at most basal fifth pale. Take care not to confuse with *Chalcosyrphus nemorum*.

Xylota florum: 6-7; medium; deciduous forest; rare. Hind tibia with basal third pale yellow. Segments 1-3 of fore tarsus yellowish, segments 4-5 dark. Difficult to distinguish from *X. jakutorum*.

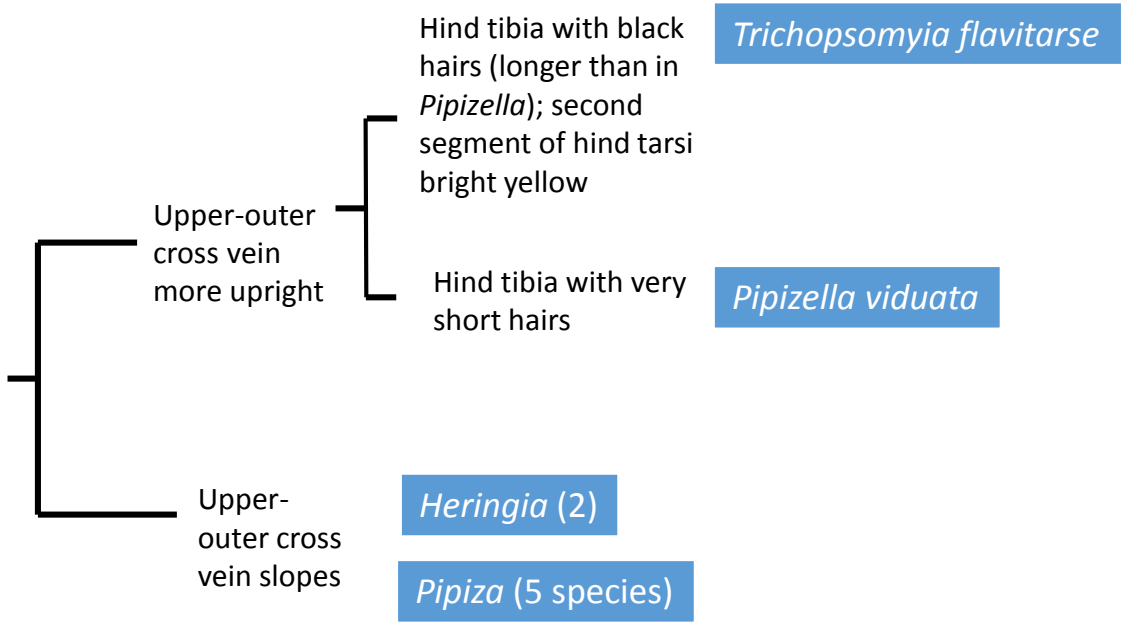
Xylota jakutorum: 5-8; medium; conifer forest, with mature and overmature trees; widespread. Hind tibia with basal third pale yellow. Segments 1-2 of fore tarsus yellowish, segments 3-5 dark. Difficult to distinguish from *X. florum*.

Hind tibia basal third pale



© Steven Falk *Xylota jakutorum*

17. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs (4 genera)**



Note these genera are very difficult to distinguish

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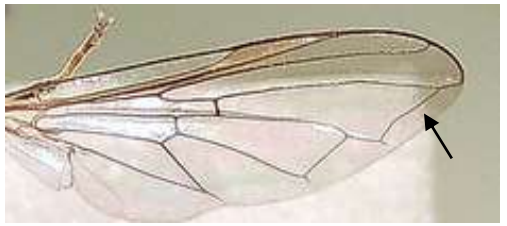
Upper-outer cross vein more upright

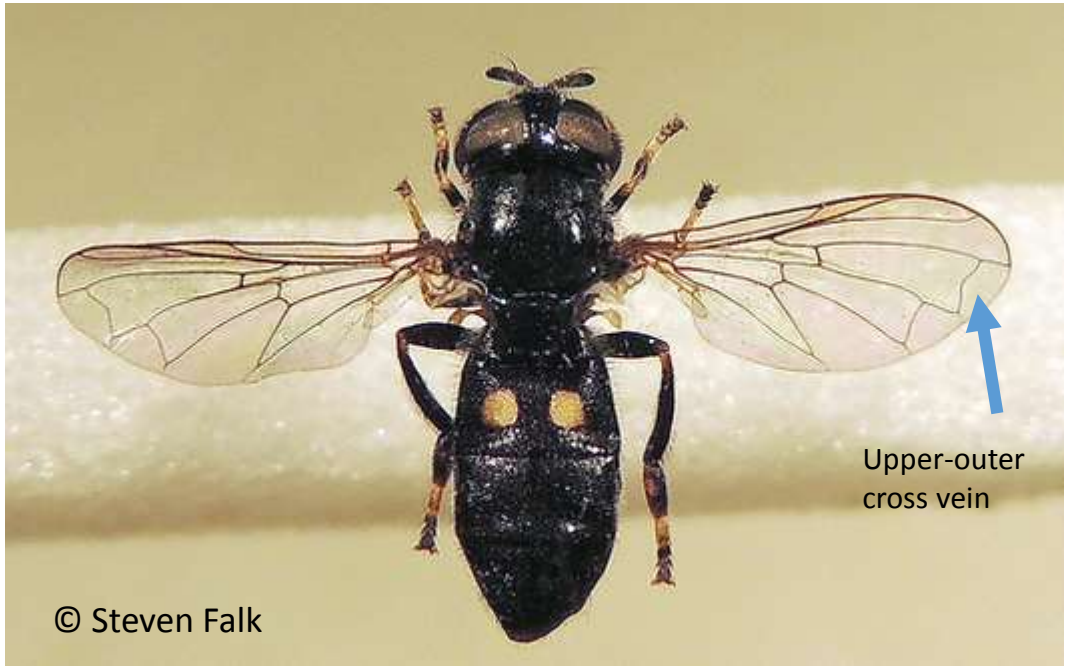


© Steven Falk

Upper-outer cross vein slopes

17. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs (4 genera)**

Trichopsomyia flavitarse



- Hind tibia with black hairs (longer than in *Pipizella*)
- Second segment of hind tarsi bright yellow
- Females usually have round yellow spots on tergite 2 of abdomen

Upper-outer cross vein more upright

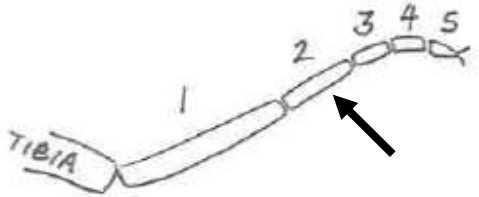
Flight period: May - July

Size: Small-medium

Habitat: Wetland

Distribution: Widespread

Notes: Occasional



17. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs (4 genera)**

Pipizella viduata

- Hind tibia with very short hairs
- Antennae slightly elongate

Upper-outer cross vein more upright

Flight period: Mid April - beginning October

Size: Small-medium

Habitat: open ground dominated by low-growing ericaceous shrubs, from boggy moorland through to raised bog, limestone karst grasslands, coastal dune grasslands

Distribution: Widespread

Notes:

17. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs (4 genera)**

Heringia (2)

- **Difficult to ID to species and from *Pipiza***

Upper-outer cross vein slopes

Heringia heringi: 5-7; small-medium; deciduous woodland with a well-developed understorey of shrubs; rare**.** Upper outer cross vein with sharp curve. Males – coxa simple. Females – antennal segment 3 is twice as long as wide.

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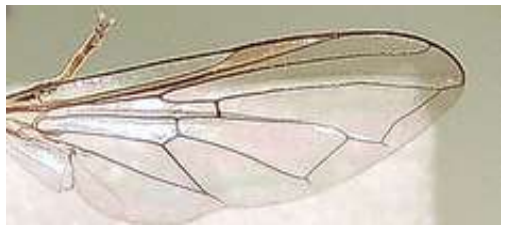
Heringia vitripennis: 5-9; small-medium; associated with oak woodland and fruit trees in Ireland; rare**.** Upper outer cross vein with gentle curve. Males – long spike on coxa of middle leg. Females – antennal segment 3 hardly longer than wide.



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The leg is attached to the thorax by the coxa

17. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face flat, both with long hairs (4 genera)**

Pipiza (5 species)

- Often have wing cloud
- Some species have yellow spots on abdominal segment T2
- **Very difficult to ID to species and from *Heringia***

Upper-outer cross vein slopes

Pipiza species are very difficult to identify:

Pipiza austriaca: 6-8; medium; Forest/open ground, hedgerows; widespread but absent NW Ireland.

Pipiza bimaculata: 5-6; medium; Oak forest, woodland edge & trackside; rare.

Pipiza festiva: 4-6, 8-10; medium; alluvial forest, fruit orchard; one Irish record (Co. Antrim).

Pipiza luteitarsis: 4-5; medium; deciduous forest, mature suburban gardens; rare.

Pipiza noctiluca: 5-6, 8-9; medium; across habitats, including gardens; widespread.

18. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face not flat, can be hairy or hairless (1 genus)**

Cheilosia (19 species)

Difficult genus to identify to species. Will require the use of keys and comparisons with reference specimens

Three species are distinctive species (with microscope):

***C. albitarsis**:* 4-6; medium; agricultural land and forest clearings; common. Front tarsi (leg) with segments 2-4 orange-brown and segments 1 and 5 black

***C. latifrons**:* 4-9; medium; unimproved, poorly-drained pasture; widespread. Face with erect hairs. Edge of scutellum without black bristles

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***C. variabilis**:* 4-9; medium; deciduous woodland; common. Face with erect hairs. Edge of scutellum with black bristles

18. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face not flat, can be hairy or hairless (1 genus)**

Eyes hairy

Cheilosia albipila: 4-5; medium-large; woodland, or woodland edge, either close to water or in poorly-drained situations; occasional**.** Hairy orange hoverfly with orange hind tibia & orange antennae. Early spring species.

Cheilosia grossa: 3-4; medium-large; deciduous forest/open ground; clearings and tracksides in woodland and scrub; poorly drained pasture; occasional**.** Hairy hoverfly with orange tibia and black antennae. Early spring species.

Cheilosia grossa

Cheilosia albipila

Eyes hairy

Cheilosia bergenstammi: 4-9; medium; open ground, farmland landscape; common.

Cheilosia fraterna: 4-6; medium; deciduous forest/freshwater; one doubtful record for Ireland.

Cheilosia impressa: 5-7, 8-9; medium; deciduous forest, wetland, unimproved grassland; occasional.

Cheilosia nebulosa: 4-6; medium; *Alnus/Salix* carr and poorly drained scrub (*Prunus spinosa*) woodland; occasional.

Cheilosia psilophthalma: 4-5; medium; unimproved, reasonably well-drained, oligotrophic, low altitude grassland and scrub; rare.

Cheilosia semifasciata: 3-5; medium; varies, including stone walls, most often associated with *Sedum* or *Umbilicus*; occasional.

Cheilosia uviformis: 5; medium; deciduous forest and woodland subject to winter flooding; very rare.

Cheilosia velutina: 7-8; medium; mesophilous deciduous forest/scrub and unimproved grassland; very rare.

Cheilosia vernalis: 4-10; medium; coastal dune systems, unimproved grassland and in grassy open areas in deciduous woodland; common.

18. FEATURE: **Humeri hairy, cross vein R-M meets discal cell before the middle of the cell. Eyes and face not flat, can be hairy or hairless (1 genus)**

Eyes bare

Cheilosia ahenea: 5-7; medium; limestone pavement, machair; occasional.

Cheilosia antiqua: 4-6; medium; deciduous forest and unimproved pasture; widespread.

Cheilosia longula: 6-10; medium; deciduous and coniferous forest; rare.

Cheilosia pagana: 5-6, 7-9; medium; unimproved, humid grassland and open areas in deciduous forest; common.

Cheilosia pubera: 4-6; medium; unimproved montane pasture and fen carr; very rare.

Cheilosia scutellata: 5-9; medium; deciduous and coniferous forest; occasional, known records are from the southern half of Ireland.

Cheilosia vicina: 5-7; medium; clearings and open areas in forest and unimproved grassland; very rare.

C. antiqua

C. bergenstammi

C. nebulosa

C. vernalis

HUMERI BARE

If the head is concave & the humeri are obscured but bare follow through 19-21:

19. Face and scutellum black (can look metallic)

Xanthandrus *comtus*
Platycheirus (22)
Melanostoma (2)

20. Tiny black flies

Paragus (2)

21. Black & yellow striped hoverflies

* Note that a few species can be black and grey/white striped

Syrphus (4)
Parasyrphus (6)
Epistrophe (3)
Meliscaeva (2)
Eupeodes (5)
Melangyna (5)
Meligramma (2)
Scaeva (2)
Dasysyrphus (5)

19. FEATURE: **Humeri bare; face and scutellum black (can look metallic)**

Xanthandrus comtus

- Medium-large hoverfly 8-11mm
- Abdomen broad and flat with large yellow spots
- Distinctive markings on abdomen:T2 has two spots, T3 and T4 have a ‘w shape’

Eyes bare, distinctive abdominal markings

Flight period: May – October

Size: Medium-large

Habitat: forest, deciduous, broad-leaved evergreen and coniferous

Distribution: Rare

Notes:

19. FEATURE: **Humeri bare; face and scutellum black (can look metallic)**

Melanostoma (2)

M. mellinum

- Yellow and black hoverflies
- Females have distinctive abdominal markings. Males could be confused with *Platycheirus*.
- **The two species can be difficult to distinguish**

Eyes bare, distinctive abdominal markings

Melanostoma mellinum : 4-10; medium; open country, grassland and heathland, plus grassy clearings and tracksides in woodland; common**.** Females have narrow dust spots on the frons.

Melanostoma scalare: 3-9; medium; occurs in association with most types of deciduous woodland found in Ireland, including scrub, and is to be found in suburban gardens and parks; common**.** Females have broad dust spots on the frons.

M. scalare

Distinguishing these species is difficult and requires the use of reference specimens

19. FEATURE: **Humeri bare; face and scutellum black (can look metallic)**

Platycheirus (22)

- Medium sized hoverfly
- Males of many species have flattened front tarsi
- **Very difficult to identify to species**

Flattened front tarsi

© Steven Falk

Eyes bare, variable genus

There are two *Platycheirus* with distinctive markings on the abdomen. The others are difficult to ID

P. rosarum

P. granditarsus

Platycheirus rosarum: 5-9; medium; pond, stream and river margins with tall herb vegetation and fen, around the periphery of raised bogs, *Salix* swamp, also humid, seasonally-flooded, unimproved grassland; common. Abdomen widens towards tip & is black with a pair of pale yellow markings on tergite 3

Platycheirus granditarsus: 5-9; medium; humid, unimproved grassland subject to flooding or not, including oligotrophic *Molinia* grassland, marsh, fen, edges of raised bogs; common. Large red-orange markings on the abdomen.

These two species can often be found together

19. FEATURE: **Humeri bare; face and scutellum black (can look metallic)**

Platycheirus albimanus: 4-10; medium; deciduous forest, farmlands, gardens; very common.

Platycheirus ambiguus: 4-5; medium; deciduous scrub of *Prunus/Crataegus* and mature hedgerows, where *Ribes* is grown as a fruit crop; occasional.

Platycheirus amplus: 6-8; medium; fen and poor fen; flushes and brooks in moor and bog; rare.

Platycheirus angustatus: 5-9; medium; wetland and humid, seasonally flooded grassland; common.

Platycheirus aurolateralis: 4-6, 7-9; medium; deciduous scrub, gardens; rare.

Platycheirus clypeatus: 4-9; medium; humid grassland and fen; common.

Platycheirus discimanus: 4-5; medium; open areas in humid deciduous woodland and *Prunus spinosa* scrub; rare.

Platycheirus fulviventris: 5-8; medium; reed (*Phragmites, Phalaris*) beds and stands of other tall, water margin grasses; widespread.

Eyes bare, variable genus

Platycheirus immarginatus: 5-9; medium; freshwater coastal marshes; fen and flush systems in blanket bog; cut-over raised bog; rare.

Platycheirus manicatus: 5-9; medium; fen, humid, unimproved grassland; common.

Platycheirus nielseni: 6-9; medium; where *Betula/Salix* scrub is present in oligotrophic *Molinia* grassland/moorland or partially-reclaimed blanket bog, especially along streams; occasional.

Platycheirus occultus: 4-9; medium; among tall vegetation in fen, marsh and transition mire, seasonally-flooded grassland, dune slacks and around coastal lagoons. It can also be found in blanket bog, along stream and in association with base-rich flushes; widespread.

Platycheirus peltatus: 5-8; medium; humid, tall herb vegetation along rivers and streams and in seasonally-flooded grassland. It also occurs in fen; occasional.

Platycheirus perpallidus: 4-9; medium; occurs among tall, emergent vegetation, standing in the water at the edge of pools and lakes, or on scraw in fen, transition mire and flushes in blanket bog; occasional.

Platycheirus podagratus: 5-7; medium; acid fen, margins of oligotrophic lakes, rivers and brooks in unimproved grassland; very rare.

19. FEATURE: **Humeri bare; face and scutellum black (can look metallic)**

Platycheirus ramsarensis: 6-8; xmm; occurs among tall marginal vegetation (e.g. Juncus) along streams in moor and blanket bog, with flushes in unimproved, upland grassland, in transition mires and in cutover blanket bog where pools with tall marginal vegetation have formed; occasional.

Platycheirus scambus: 5-7, 8-9; xmm; occurs in all wetland types from saltmarsh and coastal lagoons to flushes in blanket bog; widespread.

Platycheirus scutatus: 4-10; 5-7.5mm; gardens, hedges, scrub and woodland edge; common.

Platycheirus splendidus: 4-8; xmm; hedges containing *Ulmus glabra*, suburban gardens ; rare, may be recent arrival.

Platycheirus sticticus: 5-8; xmm; conifer plantation (*Picea/Pinus*) and acidophilous *Quercus* woodland; one confirmed Irish record.

Platycheirus albimanus

Platycheirus angustatus

Eyes bare, variable genus

Platycheirus manicatus

Platycheirus clypeatus

Platycheirus occultus

Platycheirus scutatus

20. FEATURE: **Humeri bare, tiny black hoverfly (1 genus)**

Paragus (2)

Paragus haemorrhous

- Very small species, flies close to the ground
- Face yellow
- Eyes hairy
- Legs extensively yellow
- **Difficult to identify to species**

Paragus constrictus: 5 & 7-8; small; thinly vegetated limestone pavement at low altitude and in a calcareous coastal dune system; rare**.**

Paragus haemorrhous: 5-9; small; heath, heather-dominated areas of partially-drained raised bog, *Molinia* grassland and limestone pavement grassland; occasional**.**

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

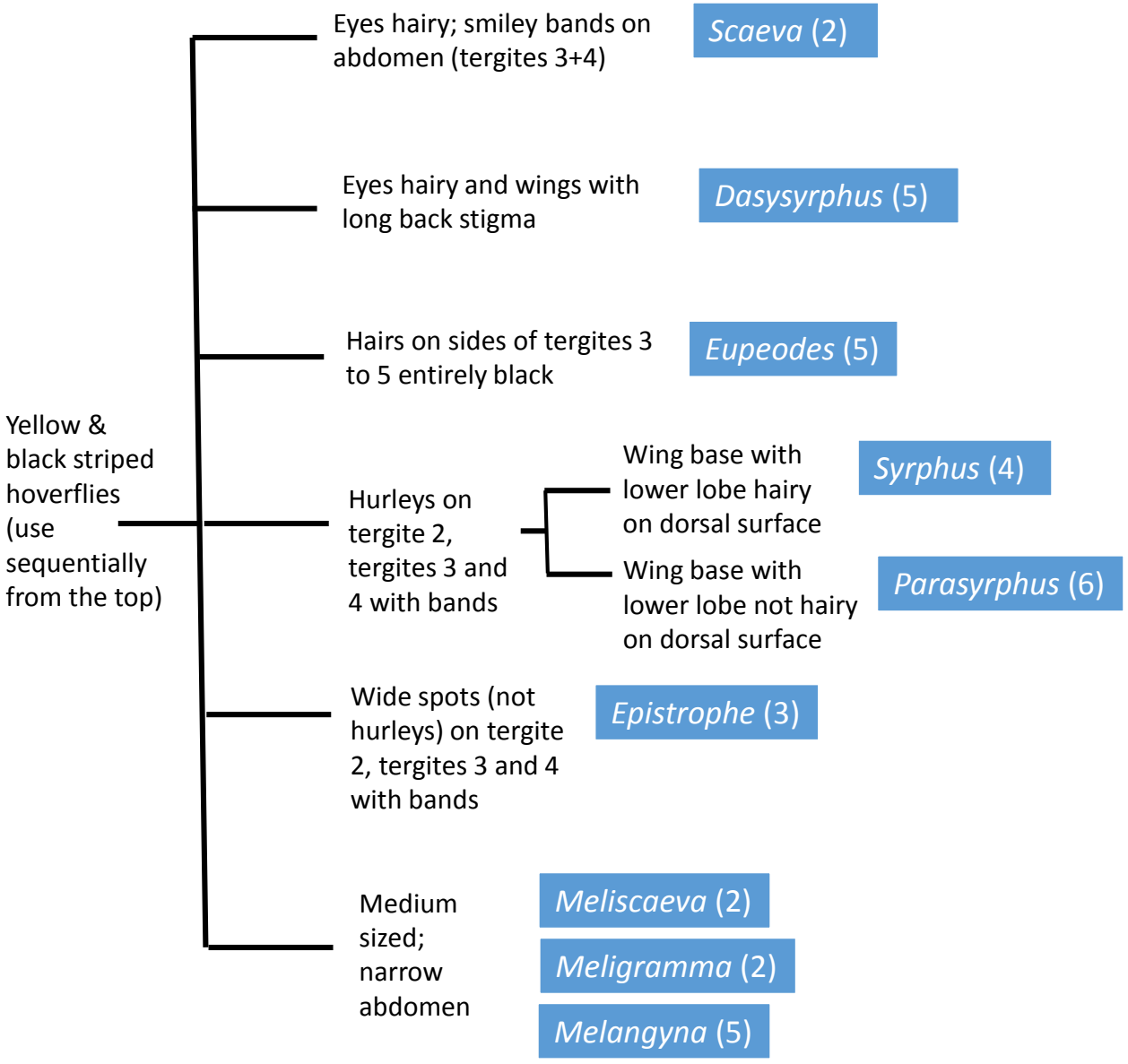
Scaeva selenitica

Eupeodes luniger

Syrphus ribesii

Melangyna arctica

Meliscaeva cinctella



Note that while yellow and black hoverflies may appear distinctive to a beginner, genera & species can be difficult to tell apart

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Scaeva (2)

S. selenitica

S. pyrastri

- Hind legs partly yellow

Eyes hairy; smiley bands on abdomen (tergites 3+4)

Scaeva pyrastri: 2-11; large; across habitats including gardens; occasional**.** White abdominal bands.

Scaeva selenitica: 3-9; large; most types of deciduous forest, including scrub woodland and orchards; occasional, southern distribution**.** Yellow abdominal bands.

S. pyrastri

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Dasysyrphus (5)

D. albostriatus

D. tricinctus

- Hind legs partly yellow
- Tergites with weak longitudinal groove
- Normally have a central black stripe on face
- *D. pinastri, D. hilaris* & *D. venustus* are very similar and closely related
- Woodland hoverfly

D. pinastri

Eyes hairy and wings with long back stigma

D. venustus

Dasysyrphus tricinctus: 4-10; medium; Birch (including scrub), oak woodland and conifer plantation; widespread**.** Yellow band on tergite 3 much wider than that on tergite 4

Dasysyrphus albostriatus: 5-9; medium; coniferous and deciduous forest and conifer plantation; widespread**.** Tergites 3 and 4 with oblique downward facing bands. Two grey stripes on the thorax. Don't confuse with *Chrysotoxum festivum*.

Dasysyrphus pinastri: 4-6; medium; conifer plantations; rare**.** Tergites 3 and 4 with hooked bars which don't reach side margin, hind tarsus entirely black

Dasysyrphus hilaris 5-6; medium; mature conifer forest; very rare**.** Tergites 3 and 4 with hooked bars which do reach side margin. Face with knob yellow

Dasysyrphus venustus: 4-6; medium; deciduous woodland and conifer plantation; widespread**.** Tergites 3 and 4 with hooked bars which do reach side margin. Face with knob darkened

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

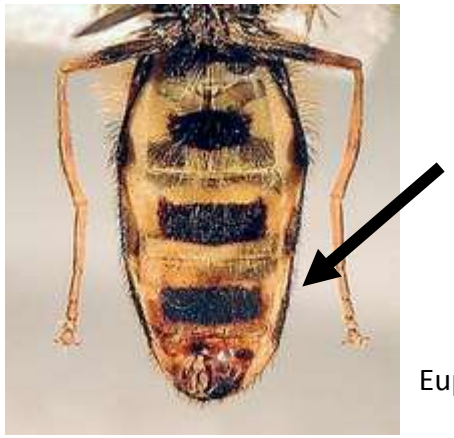
Eupeodes (5)

E. luniger

E. corolla

- Margins of abdominal tergites with a strong longitudinal groove from middle of tergite 2 to tergite 5
- Face yellow
- **Difficult to ID to species**. Markings can vary in shape, colour and extent in relation to the temperature at which the larvae developed.

Hairs on sides of tergites 3 to 5 entirely black



Eupeodes bucculatus

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Eupeodes bucculatus: 4-5 & 7-8; medium; wetland/freshwater; occasional.

Eupeodes corolla: 5-9; medium; across habitats, including gardens; widespread.

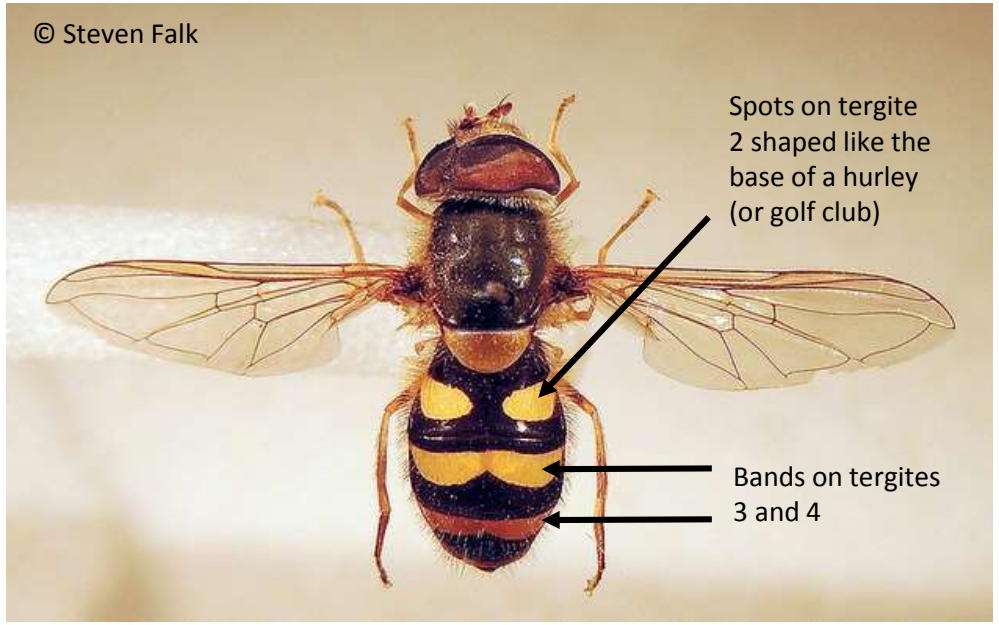
Eupeodes goeldlini: 5 & 7-8; medium; forest, open ground, with *Salix*; only one known Irish location.

Eupeodes latifasciatus: 5-9; medium; freshwater wetland habitats; widespread.

Eupeodes luniger: 4-11; medium; across habitats, including gardens; widespread.

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Syrphus (4)



S. vitipennis

- Wing base with lower lobe hairy on dorsal surface. Difficult to see! Hold abdomen and pull wing back, look on top of the membranous flap for hairs on upper surface
- Face yellow
- *Syrphus*, *Parasyrphus* and *Epistrophe* are all very similar

Hurleys on tergite 2, tergites 3 and 4 with bands

S. torvus

S. ribesii

Syrphus ribesii: 4-11; medium-large; across habitats, including parks & gardens; common. Males have bare eyes. Females hind femur entirely yellow.

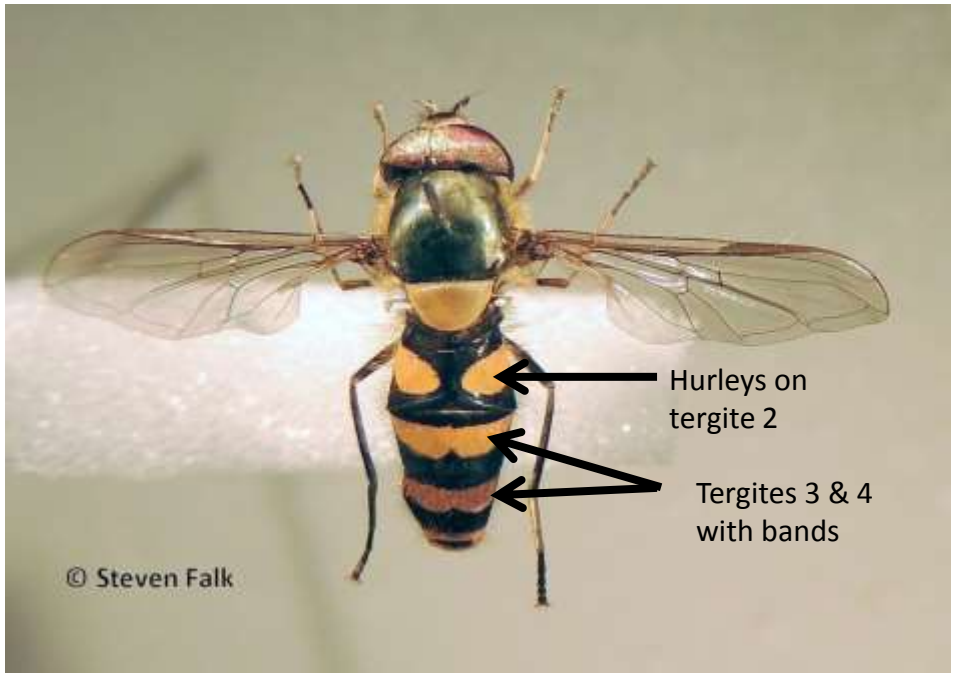
Syrphus torvus: 3-10; medium-large; deciduous woodland & conifer plantation; widespread. Males have hairy eyes. Females hind femur extensively darkened.

Syrphus vitipennis: 4-10; medium; most habitats except wetlands; common. Males have bare eyes. Females hind femur extensively darkened.

Syrphus rectus: 7-8; medium; improved pasture and unimproved grassland with thickets of deciduous scrub; very rare. Males have bare eyes. Females hind femur extensively darkened. It is now thought that this is probably a variety of *S. vitipennis*.

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Parasyrphus (6)



Parasyrphus lineolus

- Wing base with lower lobe not hairy on dorsal surface
- *All have moustache shaped bands on tergites 3 & 4, except *P. punctulatus* which has a pair of spots
- Most are associated with conifers
- *Syrphus*, *Parasyrphus* and *Epistrophe* are all very similar
- **Can be difficult to ID to species**

Hurleys on tergite 2, tergites 3 and 4 with bands

Parasyrphus punctulatus: 4-6; 5.5-7.75mm; deciduous and coniferous woodland; widespread**.** Tergites 3 and 4 with a pair of spots instead of bands. Can be confused with *Melangyna*.

Parasyrphus punctulatus

Parasyrphus nigritarsis: 5-6; medium; wet *Salix* woodland; rare**.**

Parasyrphus lineolus: 4-7; medium; commercial conifer plantations; rare**.**

Parasyrphus vittiger**:** 4-9; medium; mostly associated with Oak woodland in Ireland; rare**.**

Parasyrphus annulatus**:** 5-8; medium; spruce plantations; rare**.**

Parasyrphus malinellus**:** 4-7; medium; conifer planations; rare**.**

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Epistrophe (3)

E. grossulariae

E. nitidicollis

- Face yellow (mainly)
- Eyes bare
- Margins of abdominal tergites with a weak longitudinal groove on tergites 3 & 4 or 4 only
- Apart from the distinctive form of *E. eligans*, difficult to separate from *Syrphus* and *Parasyrphus*

Wide spots (not hurleys) on tergite 2, tergites 3 and 4 with bands

This form of *E. eligans* is distinctive, but it can be variable. The other two species can be difficult to identify from *Syrphus/Parasyrphus*

Epistrophe eligans: 4-6; medium; deciduous forest; widespread**.** Yellow markings mainly on tergite 2 and absent or much smaller on other tergites. Note that *E. eligans* will not always look like this. Spring-summer species

Epistrophe grossulariae: 7-9; medium-large; humid, tall herb communities; occasional**.** Antennae predominantly or entirely black. Late summer species.

Epistrophe nitidicollis: 5-6; medium-large; deciduous forest, scrub; rare**.** Antennae predominantly orange. Spring-summer species

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Meliscaeva (2)

M. auricollis

- Yellow face
- Wings can look elongate
- Found in woodlands
- Markings can vary in shape, colour and extent in relation to the temperature at which the larvae developed.

Medium sized, narrow abdomen

Meliscaeva auricollis: 3-10; medium; deciduous and conifer forest and plantations, suburban gardens; widespread**.** Tergite 3 and 4 with wedge-shaped spots. Face with at least knob black. Markings can sometimes look grey.

Meliscaeva cinctella: 4-9; medium; deciduous and conifer forest and plantations, hedgerows, suburban gardens; widespread**.** Tergites 3 and 4 with parallel bands. Face entirely yellow

M. cinctella

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Meligramma (2)

M. cincta

- Triangular like spots on tergite 2
- Yellow scutellum & face
- Eyes bare
- Similar to *Melangyna*
- Can look like *Platycheirus* but those species have a black face

Medium sized, narrow abdomen

Meligramma cincta: 4-8; medium; oak forest, but can be found in suburban parks and gardens where scattered, mature oak, sycamore or beech trees are present; occasional, more common in north and east**.** Tergites 3 and 4 with bands

Meligramma guttatum: 6-8; medium; humid deciduous forest, particularly along rivers; field hedges with mature *Fraxinus*; rare**.** Tergites 3 and 4 with spots. Can have yellow spots at back of the thorax

M. guttatum

21. FEATURE: **Humeri bare, yellow and black striped hoverflies (9 genera)**

Melangyna (5)

M. lasiophthalma

M. umbellatarum

- Eyes can be hairy
- Face partly yellow, often with a darkened central knob
- Scutellum usually brownish
- Woodland hoverfly
- **Difficult to identify to species**

M. arctica

Medium sized, narrow abdomen

Melangyna lasiophthalma: 3-6; medium; scrub woodland and conifer plantations; widespread. Early species.

Melangyna arctica: 4-6; medium; wet and deciduous woodland; widespread.

Melangyna umbellatarum: 5-9; medium; wet woodland and *Salix* scrub; widespread, not common. Abdominal markings often pale/whitish.

Melangyna compositarum: 5-9; medium; conifer plantations; one known Irish location.

Melangyna quadrimaculata: 2-4; medium; relict patches of mature oak forest; very rare. Very early species

M. quadrimaculata

Reference specimens

Having reference specimens for comparison is important for accurate hoverfly identification. The National Biodiversity Data Centre maintains a reference collection of Irish species that is available for public use during office hours. Please contact us in advance if you want to use the collection.

The reference collection is primarily a wet collection, but there are also smaller numbers of pinned specimens. A list of available material is available on the website.

All donations of wet or dry material would be gratefully received.

Submit records

If you are sure of the identification please submit your records of hoverflies to the National Biodiversity Data Centre

http://records.biodiversityireland.ie/

Website on Irish hoverflies: http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/

Info on hoverflies and Syrph the Net

Species accounts including maps & photographs for each of the 180 species in Ireland

Identification guides and scientific keys for download

Improving this guide

If you find errors, or have suggestions on how to improve this guide for beginners please let me know at any time. Úna: ufitzpatrick@biodiversityireland.ie

The intention is to continually improve the guide on annual basis.

Thanks