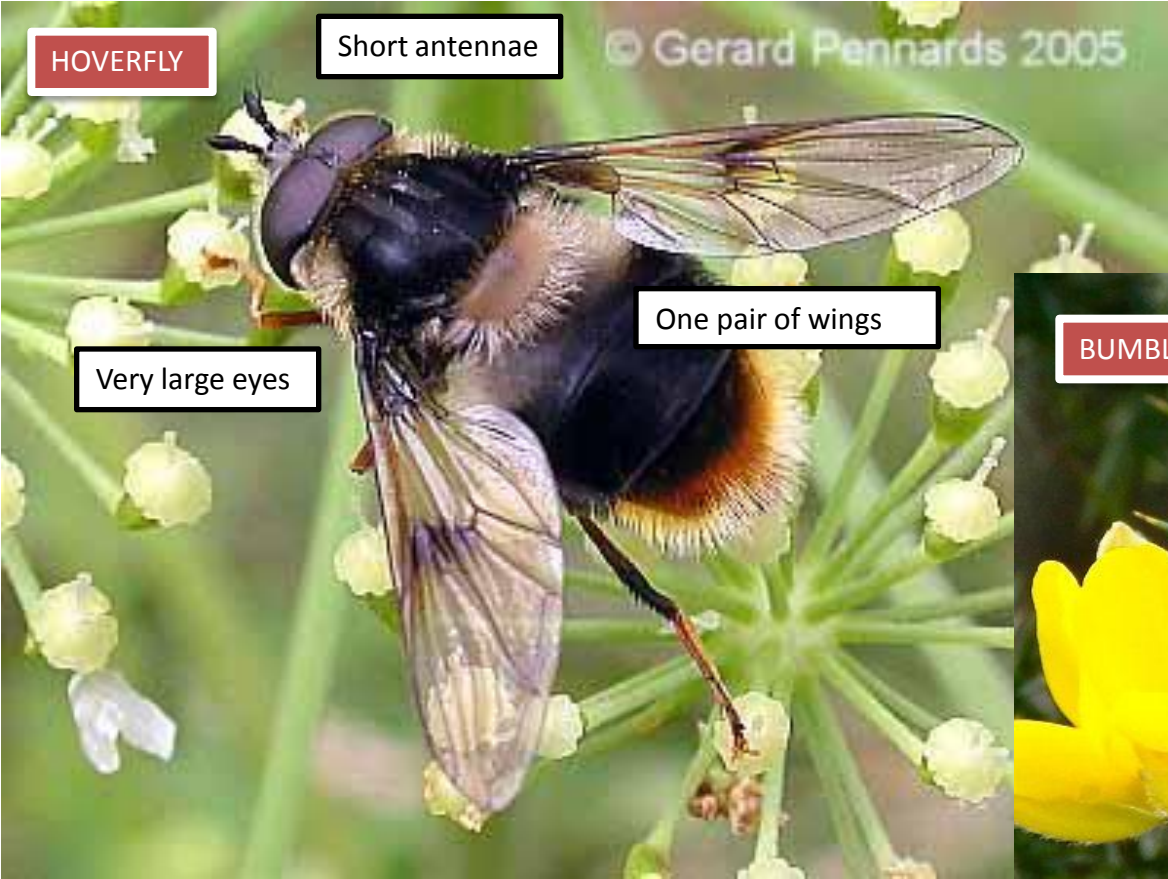# GUIDE TO HOVERFLIES THAT MIMIC BUMBLEBEES

This guide has been put together by the National Biodiversity Data Centre with advice from Dr Martin Speight

National Biodiversity Data Centre
Documenting Ireland's Wildlife

Distinguishing features of hoverflies:

HOVERFLY
Short antennae
© Gerard Pennards 2005
One pair of wings
Very large eyes

BUMBLEBEE
Long antennae
Two pairs of wings
© Catherine Drea

Hoverflies recorded from Ireland that mimic bumblebees:

Volucella bombylans
Arctophila superbiens
Merodon equestris
Eristalis intricarius
Criorhina berberina
Criorhina floccosa
Criorhina ranunculi
Cheilosia illustrata
Eriozona syrphoides
Leucozona lucorum

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GUIDE TO SPECIES

This is NOT a key. It is simply intended as a guide to help make hoverflies more accessible to beginners. It refers only to species currently known from Ireland

Syrphids should always be identified using a scientific key. The following free key is recommended for identifying syrphids to genus in Ireland:

2012 StN keys for the identification of adult European Syrphidae (Diptera)
http://pollinators.biodiversityireland.ie/id-guides

Many of the hoverflies that mimic bumblebees cannot be recognised simply by sight in the field – it will be necessary to check specific features to ensure correct identification

1. Check if the species has feathery (plumose) antennae? If it does it is either *Arctophila superbiens* or *Volucella bombylans*

Arctophila superbiens

Hairy hoverfly with ginger hairs on the thorax & blonde hairs on the abdomen. Mimic of the common/large carder bumblebees. A late summer/autumn species - flies end July to October with a peak in August.

© W.RUTKIES

© Iain Hill

© Tracy Anne Fennell

© Iain Hill

Volucella bombylans

This species has two forms – one mimics the white tailed bumblebee (top) and the other the red tailed bumblebee (bottom). Flight period May to August.
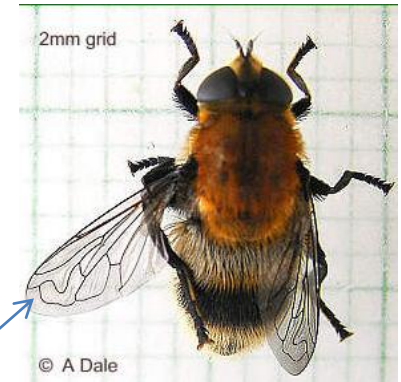

© Martin Speight

There is also a unique morph that occurs on the Aran Islands (above)

2. Check if the species has a looped vein on its wing? If it does it is either *Merodon equestris* or *Eristalis intricarius*

Merodon equestris

In *Merodon* the cross vein is re-entrant (right). Hind tibia (lower leg) entirely black. Flight period May to July.
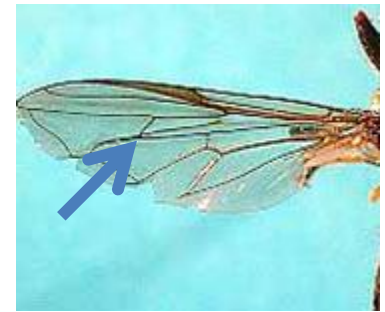

This vein joins the one above rather than extending out to the wing margin

Eristalis intricarius

Cross vein not re-entrant. Hind tibia party pale. Flight period mid April to August.

3. Check if the species has an elongate face, eyes that are bare (not hairy), and an oblique cross vein in the wing (as opposed to perpendicular)? If it does it is a *Criorhina* species
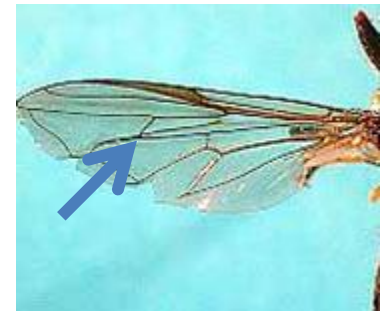

Criorhina ranunculi

The diagnostic feature for this species is the swollen hind femur. There are several colour forms that mimic different red and white tailed bumblebees. Flight period beginning March to mid May.

© C. DUSSAIX

© Steven Falk

3. Check if the species has an elongate face, eyes that are bare, and an oblique cross vein in the wing (as opposed to perpendicular)? If it does it is a *Criorhina* species

These two species are difficult to distinguish

Criorhina berberina
© Steven Falk

Criorhina berberina var. oxyacanthae
© Steven Falk

Criorhina berberina

C. berberina has 2 colour forms. *C. berberina* var. *oxyacanthae* could be confused with *C. floccosa* or with *Arctophila superbiens*. Flight period May to July.

© C.DEVILLERS

Criorhina floccosa

C. floccosa has paler orange hairs and a tuft of pale hair at the sides of the abdomen. Flight period beginning April to beginning July.

4. Other bumblebee mimics

scutellum

Cheilosia illustrata

Black face, black scutellum. Wings cloudy. Not a very good mimic! Flight period May to September.

Eriozona syrphoides

Yellow face, pale scutellum. Wings cloudy. Flight period May to October. Associated with conifer plantations.

Leucozona lucorum

Broad whitish markings on abdomen (not hairs). Cloudy wings. Pale scutellum. Not a close mimic. Flight period May to early September.

Not a bumblebee mimic, but watch out for *Cheliosia chrysocoma* which is a very distinctive mimic of the female Tawny mining bee (*Andrena fulva*)

Cheliosia chrysocoma

Long red-orange hairs. Early species like its model: flight period April to June.

Andrena fulva

Rare solitary bee. Last recorded in 1925 and thought to be extinct in Ireland until it was rediscovered in 2012

Thanks to all those who have generously allowed their photographs to be used in this guide