

Identifying soldierflies and allies: bee-flies in genus *Bombylius*

Compiled by Martin C. Harvey for the Soldierflies and Allies Recording Scheme

Version 1 at 15 March 2020

These guides are only possible thanks to the generosity of the brilliant photographers who have allowed their images to be used. Special mention must be given to Malcolm Storey and Steven Falk, whose photo collections form the backbone for most of the species guides:

Malcolm Storey's [BioImages website](#) – Steven Falk's [photo collections on Flickr](#)

Other photographers included in this guide are Geoffrey Foale, IronChris, Jane Adams, Martin Harvey, Peter Andrews and Robin Williams.

This guide is arranged differently from the others – rather than being in alphabetical order, it is in order of flight period, starting from the early spring. Males and females are similar and there is just one page for each species. Distribution maps are taken from the recording scheme's [provisional atlas](#) (Harvey 2017).

As far as possible, these guides show features that can be seen on live insects in the field, or are likely to be visible in photographs. For comprehensive identification keys and species accounts see [British soldierflies and their allies](#), by Alan Stubbs and Martin Drake. See also the recording scheme's [additional notes](#) to accompany the Stubbs and Drake keys.

For lots more information on soldierflies and allies go to the recording scheme [website](#), [Twitter](#) page or [Facebook](#) group.

For lots more information and events, and to support the study and conservation of flies, please consider joining [Dipterists Forum](#).

Records wanted!

Once you have identified your fly, please let the recording scheme have the details! Add to [iRecord](#) or send to the [recording scheme](#) so that we can share the records for conservation and research.

The Soldierflies and Allies Recording Scheme is part of Dipterists Forum



The Soldierflies and Allies Recording Scheme is supported by the UKCEH Biological Records Centre



Recognising the genus: *Bombylius*

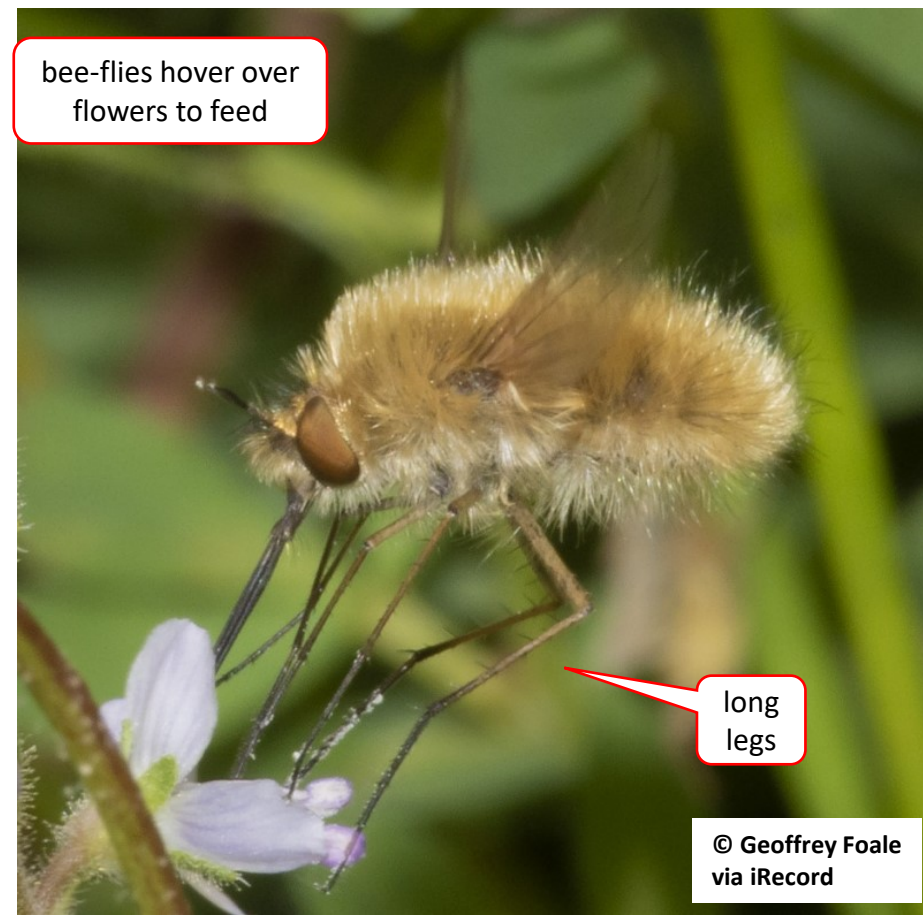
There are four species of bee-fly in genus *Bombylius*, including perhaps the recording scheme's most familiar fly: the Dark-edged Bee-fly *Bombylius major*. Males and females have similar markings (males have eyes meeting at the top of the head, females have a gap between the eyes, but this can be hard to see among all the hairs!).

All four species have a long proboscis ('tongue') extending forward from the head, which they use to feed on nectar from flowering plants, often doing so while hovering over the flowers. They lay their eggs into the nests of solitary bees, where the bee-fly larvae prey on the bee larvae.

The Dark-edged Bee-fly is by far the most frequently seen species, and the first to emerge in March or even February. It is a familiar feature of early spring in gardens as well as countryside. In the south Dotted Bee-fly can also be numerous in suitable places from March to June.

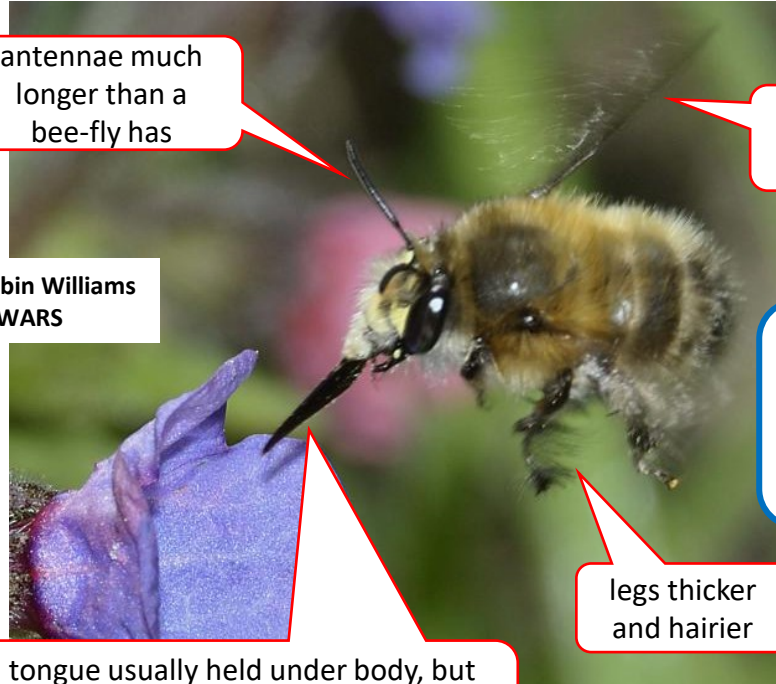
The other two species are rarer and emerge later: the Western Bee-fly from May to August in a mix of habitats in western England and Wales, and the Heath Bee-fly from July to August, specialist of heaths and confined to Dorset and the Isle of Man.

When identifying bee-flies, beware of freshly emerged individual that may not yet have developed their full wing markings; and old, worn individuals that may have lost a lot of hair and end up looking uncharacteristic



Bee-fly look-alikes

Every year we get a few records sent in as "bee-flies" that are in fact not flies at all! These are the most commonly confused species.



© Robin Williams via BWARS

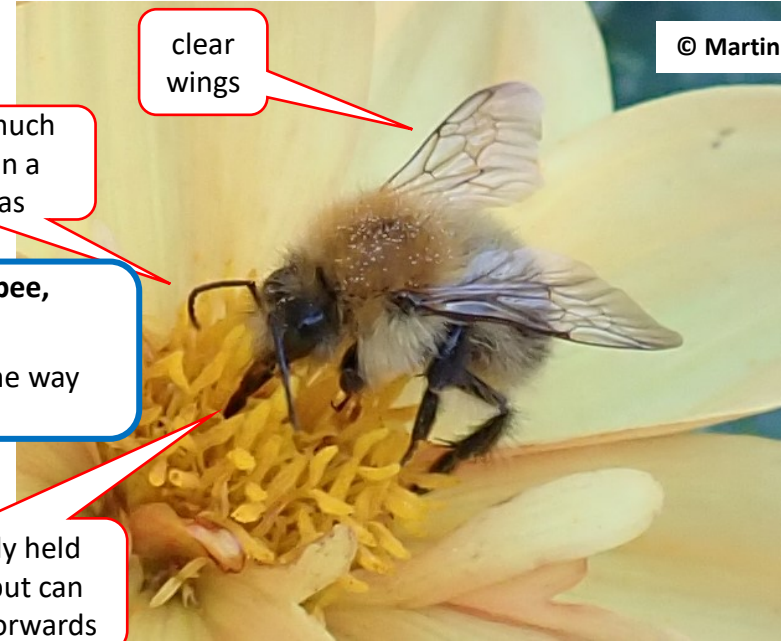
antennae much longer than a bee-fly has

clear wings

legs thicker and hairier

tongue usually held under body, but can be stretched forwards making it similar to a bee-fly proboscis

← **Hairy-footed Flower-bee, *Anthophora plumipes*** can hover very well, males similar in colour to bee-flies (females are mostly black)



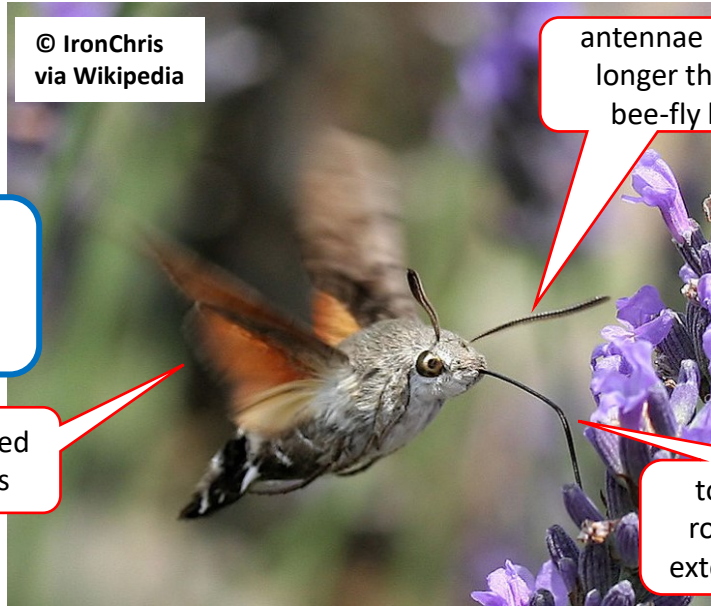
© Martin Harvey

antennae much longer than a bee-fly has

clear wings

Common Carder Bumblebee, *Bombus pascuorum* → does not hover in the same way as the others on this page

tongue usually held under body, but can be stretched forwards



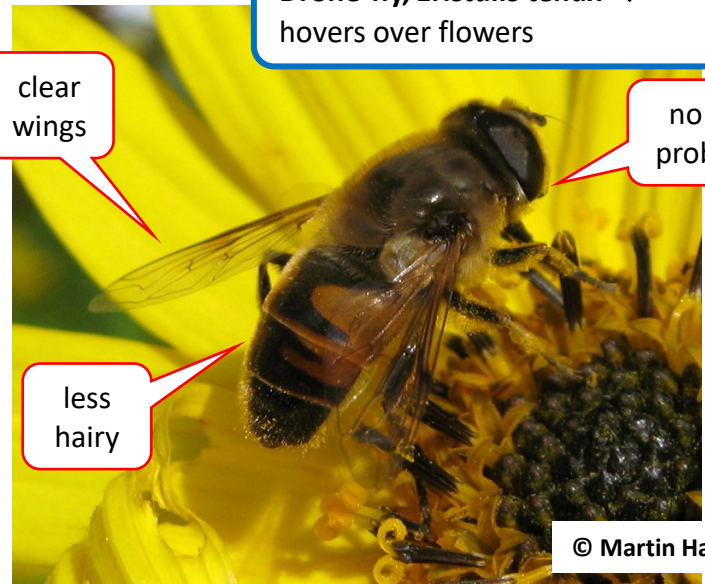
© IronChris via Wikipedia

antennae much longer than a bee-fly has

Humming-bird Hawk-moth, *Macroglossum stellatarum* → hovers over flowers

coloured wings

tongue usually held rolled up, but can be extended when feeding



Drone-fly, *Eristalis tenax* ↓ hovers over flowers

clear wings

no long proboscis

less hairy

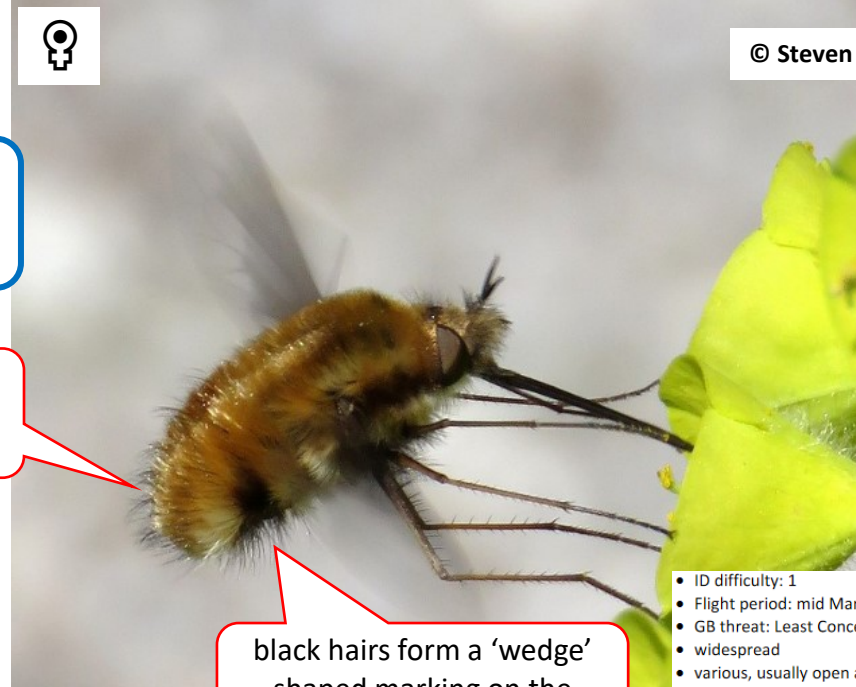
© Martin Harvey

dark marking covers base of wing and a **solid band** along the leading edge



© Martin Harvey

wings markings can be difficult to see if the wings are moving – wait for your bee-fly to land!



© Steven Falk

'tail' of abdomen is predominantly **brown**

black hairs form a 'wedge' shaped marking on the sides of the abdomen

- ID difficulty: 1
- Flight period: mid Mar to late Jun, peak mid Apr to May
- GB threat: Least Concern
- widespread
- various, usually open and sunny with bee populations
- No. of records: 7234 • % since 2000: 74%

Bombylius major (Dark-edged Bee-fly)

[Steven Falk link](#)

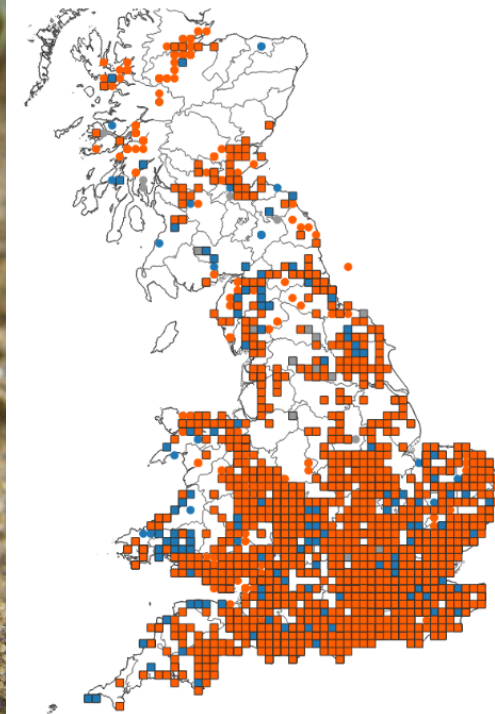
- common and widespread in the lowlands
- flies from February or March until June
- hosts: species of *Andrena* mining bees



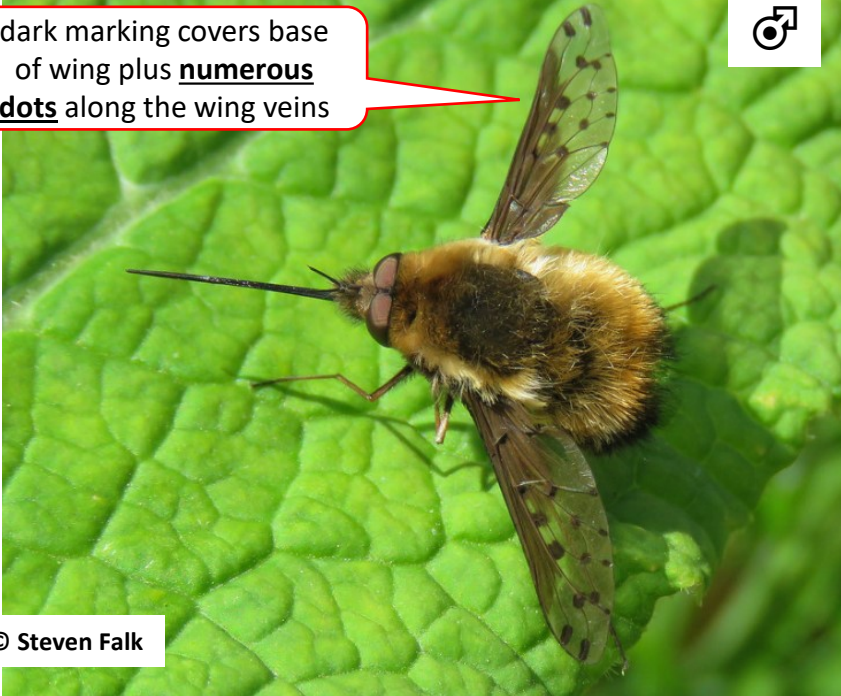
© Steven Falk



© Steven Falk



dark marking covers base of wing plus **numerous dots** along the wing veins



© Steven Falk

wings markings can be difficult to see if the wings are moving – wait for your bee-fly to land!

[Steven Falk link](#)

'tail' of abdomen is predominantly **black**



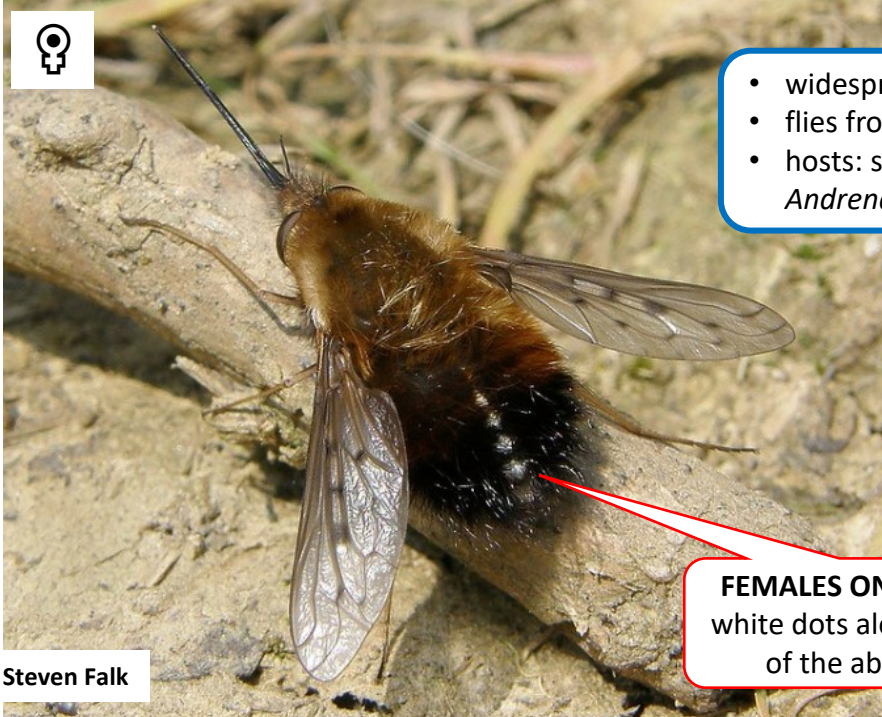
© Steven Falk

- ID difficulty: 2
- Flight period: late Mar to mid Jun, peak Apr
- GB threat: Least Concern
- southern England and Wales
- gardens, calcareous grassland, woodlands, landslipped cliffs
- No. of records: 697 • % since 2000: 68%

Bombylius discolor (Dotted Bee-fly)

- widespread in the south, spreading into the midlands
- flies from March until June
- hosts: species of *Andrena* mining bees, especially *Andrena flavipes* and *Andrena cineraria*

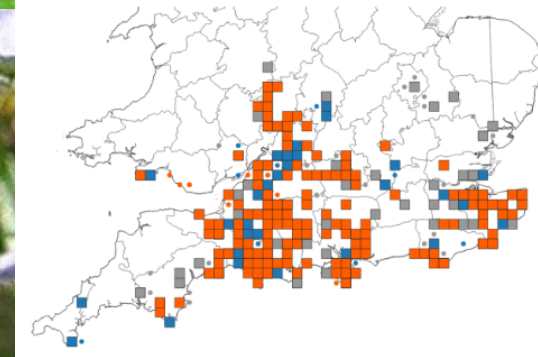
FEMALES ONLY: row of white dots along the top of the abdomen



© Steven Falk



© Steven Falk



© Geoffrey Foale via iRecord



wings markings can be difficult to see if the wings are moving – wait for your bee-fly to land!

pale brown shading at base of wing but otherwise **no dark wing markings**

- widespread in the south-west
- flies from May until August
- *Lasioglossum* and *Halictus* mining bees

[iRecord link](#)



hairs on head mostly **black**

© Geoffrey Foale via iRecord

[iRecord link](#)

- ID difficulty: 2
- Flight period: early May to mid Aug, peak Jun to early Jul
- GB threat: Least Concern • GB rarity: Nationally Scarce
- mostly western
- a variety of open habitats, including hillsides, gorges, landslips, open woodland, shingle grassland etc.
- No. of records: 292 • % since 2000: 34%
- **Caveats:** the east coast record is erroneous

Bombylius canescens (Western Bee-fly)



body hairs mostly **buff-brown**, few black hairs

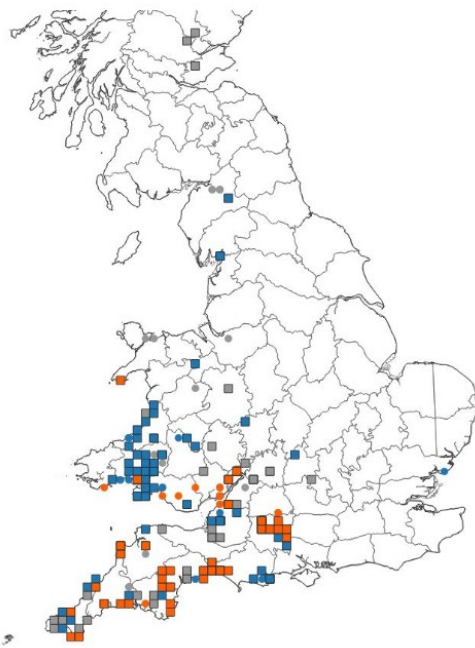
see [comparison page](#) for hair colour distinction from *Bombylius minor*

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[Steven Falk link](#)

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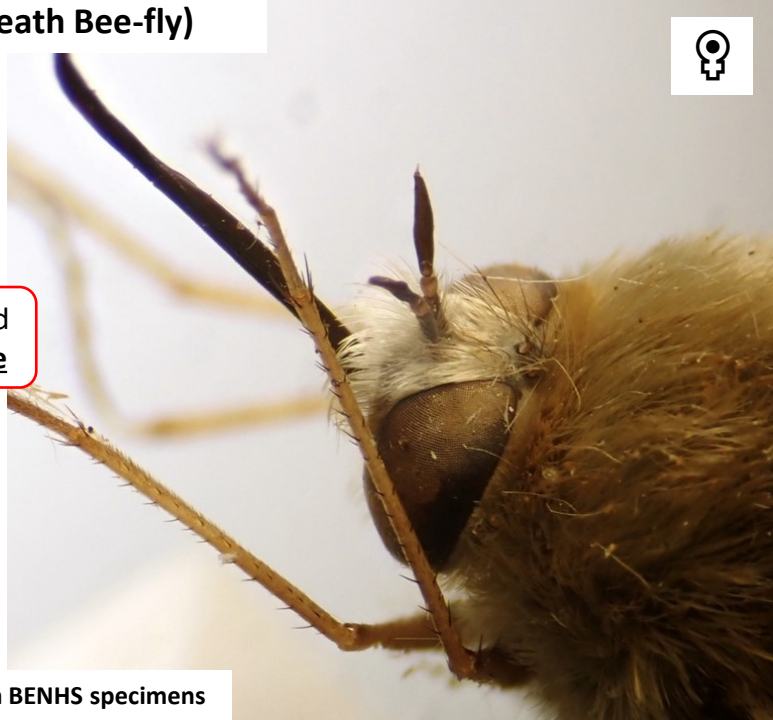
hairs on head
mostly **black**



↑ *Bombylius canescens* (Western Bee-fly)
↓ *Bombylius minor* (Heath Bee-fly)



hairs on head
mostly **white**



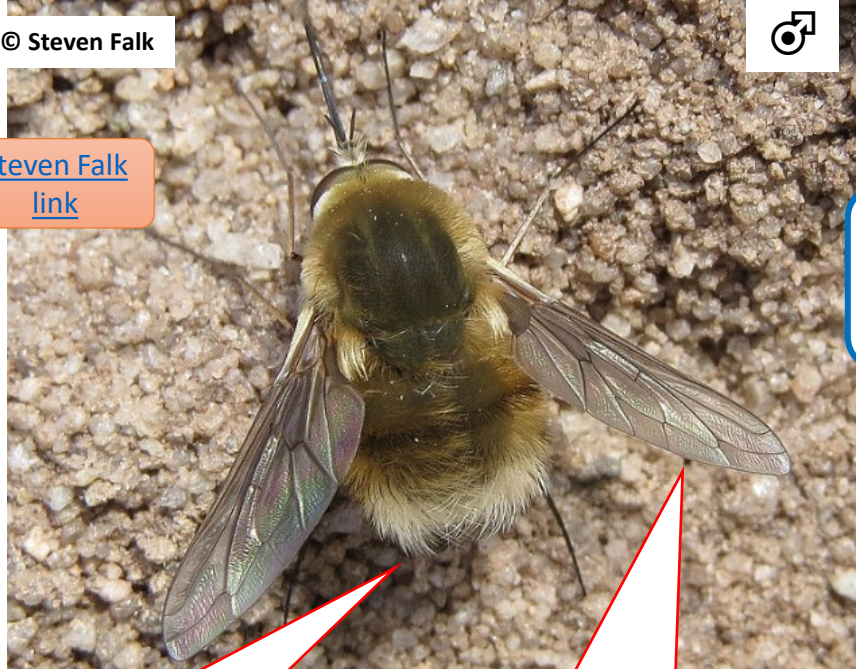
© Steven Falk



wings markings can be difficult to see if the wings are moving – wait for your bee-fly to land!

- restricted to Dorset and Isle of Man
- flies from July until late August
- *Colletes* mining bees

[Steven Falk link](#)



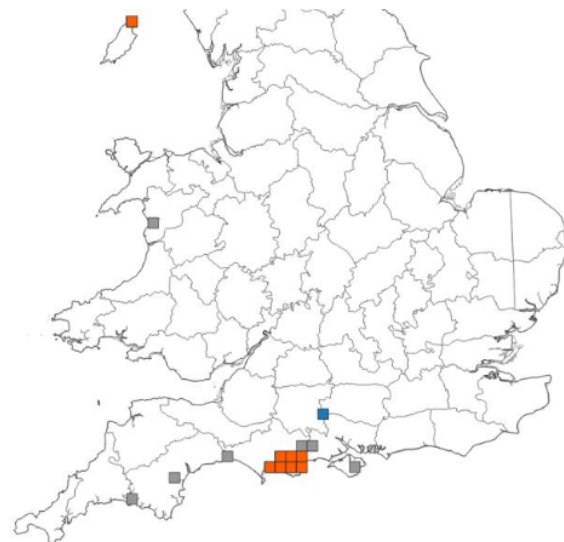
body hairs mostly buff-brown, abdomen usually has a **white 'tail'**

pale brown shading at base of wing but otherwise **no dark wing markings**

Bombylius minor (Heath Bee-fly)



- ID difficulty: 2
- Flight period: early Jul to late Aug
- GB threat: Vulnerable • GB rarity: Nationally Rare
- South-east Dorset and the Isle of Man (older records more widespread in south-west England and Wales)
- heaths, sandy banks and pits
- No. of records: 205 • % since 2000: 40%



© Peter Andrews via iRecord

[iRecord link](#)

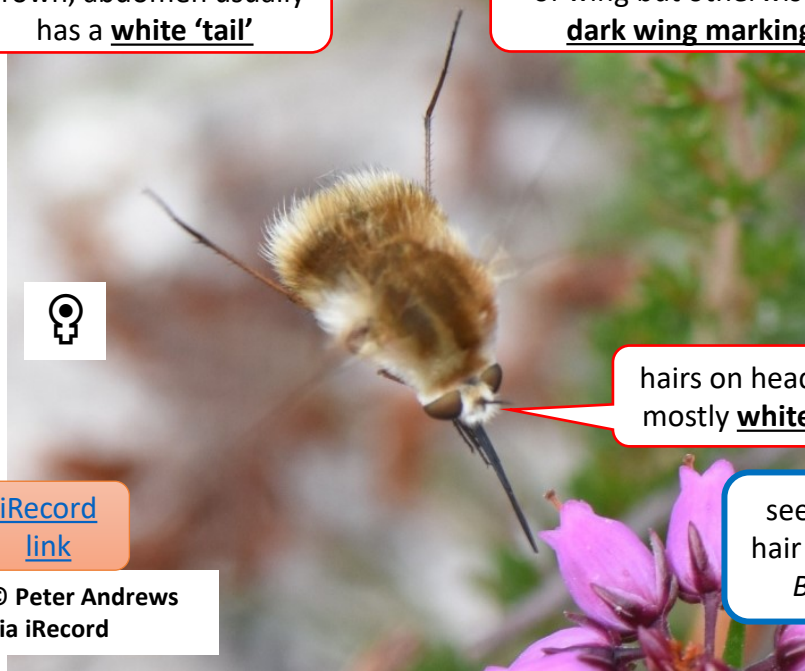


hairs on head mostly **white**

see [comparison page](#) for hair colour distinction from *Bombylius canescens*

[iRecord link](#)

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