

BUMBLEBEES

Bumblebees are medium to large, hairy bees which are important pollinators for many crops including beans and fruits.

They are social species and live in large colonies of up to **200** bees. Each colony is made up of a queen (**Q**), lots of workers (**W**) (sterile females) which gather pollen and nectar for the colony and males (**M**). Cuckoo bumblebees lay their eggs in the nests of social bumblebees. As a result, they do not require workers to collect pollen and have only male (**M**) and female (**F**) morphs.

There are **26** species in Britain but the eight most common species make up **95% - 99%** of bumblebee sightings. There are **three** useful steps for identifying a bumblebee:

1 TAIL COLOUR

Bumblebees have white or red tails, or no distinguishable tail colour. Tail colours may fade as the bee gets older.

2 BANDING

Many bumblebees have black and yellow bands, but these could vary from one thick band to three thin bands depending on the species.

3 SOCIAL OR CUCKOO BUMBLEBEE?

These often resemble their host species but they can be difficult to identify without a microscope. They have these features:

- > Darkened wings
- > No pollen baskets on their hind legs (male bumblebees also don't have pollen baskets)
- > Less hairy than social bumblebees which means the underlying shiny black body can often be seen

All of the following photos are of Workers, except for cuckoo bees.

FLIES, WASPS AND BEES

Is it a bee or a fly?

Bees

4 wings
Long, thin antennae
Eyes on side of the head
Hairy
Bees don't hover



Flies

2 wings
Short, thick antennae
Eyes in front of the head
Mostly not hairy
Flies can hover



Is it a bee or a wasp?

Wasps can be predators that hunt insects and spiders to feed their offspring or are parasitic on insects. They have long legs with spines for wrapping around prey to carry back to the nest.

Bees are wasps that evolved to feed on pollen rather than prey. As a result they are fuzzier with specialised hairs on the legs or abdomen for carrying pollen back to their nests. Behavioural differences can also be a useful identification tool; bees fly from flower to flower whereas wasps sit and wait for prey to fly past.

Bee Anatomy

Bees anatomy is broken down into head, thorax and abdomen. Males tend to have yellow facial hair and have a scruffy appearance.



Additional sources of information:

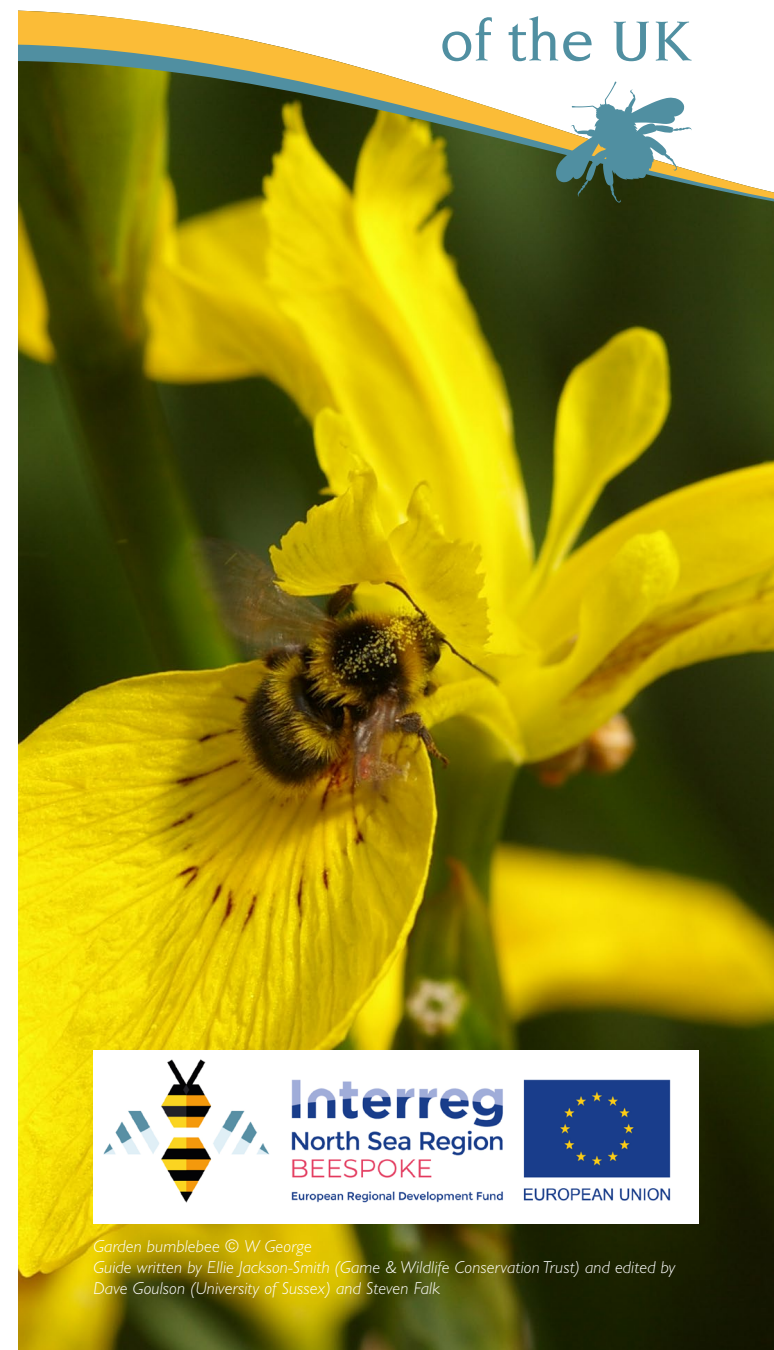
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Bumblebee Conservation Trust



BEESPOKE

Benefiting Ecosystems through Evaluation of food Supplies for Pollination to Open up Knowledge for End users

Common Bumblebees of the UK



Interreg
North Sea Region
BEESPOKE
European Regional Development Fund



Garden bumblebee © W George
Guide written by Ellie Jackson-Smith (Game & Wildlife Conservation Trust) and edited by Dave Goulson (University of Sussex) and Steven Falk

Red-tailed bumblebee

(*Bombus lapidarius*)

Q/W – Jet black with a bright red tail. **M** – Two additional yellow bands on the thorax and yellow facial hair.



Early bumblebee

(*Bombus pratorum*)

Q/W – Orange tail (noticeably duller than the Red-tailed bumblebee) with a yellow abdominal stripe and collar.

W have a reduced abdominal stripe. **M** – Additional yellow facial hair and a larger yellow band on the abdomen.



Red-tailed cuckoo bumblebee

(*Bombus rupestris*)

Sparsely hairy with a red tail.

M have indistinct greyish-yellow banding which distinguishes it from the host species, the red-tailed bumblebee.



Common Carder bee

(*Bombus pascuorum*)

Thorax ginger on top and paler on sides, abdomen varies from all-black to mainly black and can have a dull orange tail.

Field cuckoo bumblebee

(*Bombus campestris*)

Yellow-black-yellow banding on the thorax and a ginger-brown tail. This tail colour can cover over half the abdomen.

White-tailed bumblebee

(*Bombus lucorum*)

Lemon-yellow collar, a yellow band across the abdomen and a white tail.

M have a broader yellow abdominal band and a yellow haired face.



Buff-tailed bumblebee

(*Bombus terrestris*)

Buff tail with fringes of orange hairs where it meets the abdomen. Dark yellow band at the collar and across the abdomen.



Garden bumblebee

(*Bombus hortorum*)

White tail and yellow-black-yellow banding on the thorax plus a third yellow band on the abdomen.

The face is much longer than the similar looking Barbut's cuckoo bumblebee and Heath bumblebee.



Tree bumblebee

(*Bombus hypnorum*)

A distinctive species with a ginger-brown thorax, a black abdomen and a white tail.



Gypsy cuckoo bumblebee

(*Bombus bohemicus*)

A yellow collar with small yellow patches on each side of the abdomen at the top of the white tail. **M** have an additional yellow band that covers the bottom of the thorax and top of the abdomen. It parasitises the nests of White-tailed bumblebees.



Southern cuckoo bumblebee

(*Bombus vestalis*)

A yellow collar with large yellow patches on each side of the abdomen at the top of the white tail. It parasitises the nests of Buff-tailed bumblebees.



Barbut's cuckoo bumblebee

(*Bombus barbutellus*)

A large species with a yellow-black-yellow thorax and a grey-white tail. **M** have another faint yellow band at the top of the abdomen. It parasitises the nests of Garden bumblebees.



Forest cuckoo bumblebee

(*Bombus sylvestris*)

Small species with a yellow thoracic collar and a white tail.

M have an additional yellow band at the top of the abdomen and the tip of the tail is orange. **F** characteristically have their abdomen curled up underneath them. It parasitises the Early bumblebee and the Heath bumblebee.

