

Tips for Photographing Bumblebees

Bumblebees are not the easiest objects to photograph as they can move so fast, but there are a few tips we would like to share with you to ensure we can identify as many of your photographed bumblebees as possible.

1. In general, it is helpful to include multiple photos from a few different angles which will allow us to see all the characteristics of the bee and to give the best chance of a positive identification (See section A below for further details on this). Please upload multiple photos of the same bee in a single submission. If you think you may have more than one species of bumblebee please upload them as separate submissions.
2. Close-ups are the best photos as they allow the observer to see more detail. Don't be afraid to get close to bumblebees when they are visiting flowers. As long as you don't touch them, you are very unlikely to get stung.
3. Use the macro setting if your camera has one (usually an icon of a flower). This usually lets you focus on objects closer to the camera.
4. Although not necessary if you have taken a lot of background, cropping your photos before uploading them can also be an effective way to illuminate more detail on the bumblebee.

We may not always be able to provide you with a definite identification as although photographs are very useful, seeing a photograph is still second-best to having a specimen in the field or in the hand. Cameras and lighting can alter colours, and supplementary information is lost – size, behaviour, habitat, location, time, date, and movement/flight characteristics can all be important in getting to the right species.

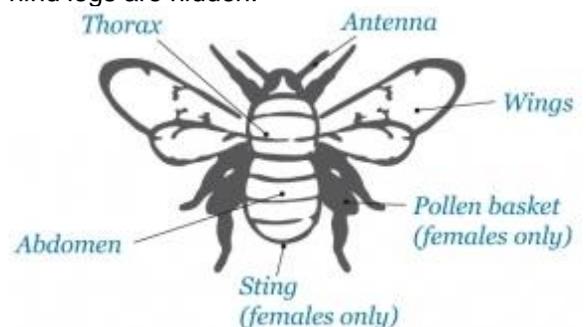
And finally don't worry if it is not the best photo or you can't identify the bumblebee in your photo. Bumblebee identification can be tricky. Your photo submission will still help us keep track of bumblebee populations and it is quite possible that our experts may be able to ID your bumblebee. We carefully verify all of our photo submissions.

Section A

Bumblebees have useful identification features scattered all over their bodies. Typically, when on flowers, they curl up into a semi-circle, hide their head and tip of the tail, and tuck their legs in which hides some of the most useful features. The best way to make sure your mystery bumblebee is identifiable from photographs is to take several, from different angles, showing as many features as possible.



Typical bumblebee-on-flower view. We can see the thorax well, and the head well enough, but most of the abdomen is hidden, including the very tip of the tail. The antennae are clearly present, but you'd struggle to see details of their segments, and all the useful features on the hind legs are hidden.



Head



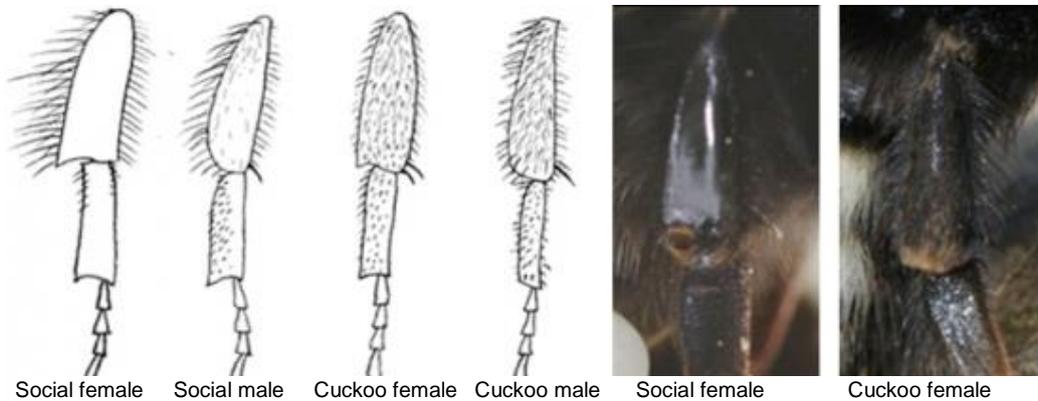
Bombus pascuorum – Richard Comont

Face shape is essentially impossible to see from a top-down picture, but is a useful ID feature to split round-faced/long-faced/very long faced species; particularly useful for identifying the Garden bumblebee (*Bombus hortorum*) and the Large garden bumblebee (*Bombus ruderatus*).

The presence and colour of facial hair is important for several species, particularly in deciding the sex of the bumblebee. The antennal segments are also useful for this – males and females have different numbers of segments, while the shape of some of the antennal segments can be used to split some species pairs, particularly males of the Gypsy and Southern cuckoo bumblebees (*Bombus bohemicus/vestalis*).

Hind leg & side

Being able to see the hind leg is really useful, as it is the easiest way to sex the social bumblebees and to split them from cuckoos. Only female social bumblebees collect pollen. They have wide, flattened, shiny femurs with long fringing hairs, forming the so-called pollen basket. Male socials have thinner, hairier legs without a pollen basket. Cuckoos also have hairy legs but without a cleared space for pollen.



Social female

Social male

Cuckoo female

Cuckoo male

Social female

Cuckoo female

Additionally, the legs carry useful ID features for some species – for example red hairs fringing the pollen basket split the Red-shanked carder (*Bombus ruderarius*) from the Red-tailed bumblebee (*Bombus lapidarius*), and the spines are also useful for some species.



Bombus lapidarius – Tessa Bramall



Bombus pascuorum – Richard Whitson

Tail tip



Tail colour is usually very important in bumblebee ID. It can often be seen from above, but bumblebees on flowers often curl round so that it's not always obvious, particularly with species that don't have much colour to the tail.

Also, several species have two-tone tails, with a different colour on the very tip.

Tail shape is useful to help sex the bee – males have a blunt, rounded back end while females come to a point, which can help make sense of other ID pointers.