

Bumblebees

As our climate changes, gardens are becoming even more vital to wildlife and people. They can provide shade, absorb carbon, soak up flood water and help to cool buildings. A well managed network of gardens stretching across the Sussex would also help wildlife to move more freely and adapt to climate change enabling us to create a living landscape.

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How many species of bumblebee are there in the UK?

There are about 24 different species of bumblebee in the UK.

Where do bumblebees nest?

Different bumblebees have different preferences, but basically they require dry, concealed cavities, often underground. Bumblebees cannot dig so they will use disused burrows made by small rodents such as mice and voles.

Some species will nest above the ground, in piles of dead dry leaves, dry tussock long grass, or abandoned birds' nests, while other use banks of soil that catch the sun. It is thought that some bumblebees like abandoned mammal nests and can probably faintly smell that rodents once lived there and use this as a cue. The queen will use dry grass or dry moss left by the previous residents of the nest to create a layer of insulation for her own nest, which will initially consist of a wax cell in which she lays her first batch of eggs. She then spreads her furry abdomen over the brood and incubates it until the larvae hatch. They must be fed on both pollen (for protein) and nectar (for energy).



Bumblebee by Alan Price

How large is bumblebee colony and how long does it last?

A colony is founded by a 'queen' (large, fertile female) in the spring or early summer. She will have spent the winter in hibernation. Her first offspring will be 'workers' (smaller, non-reproductive females) who collect pollen and nectar and set to work maintaining the wax brood cells ('comb') and looking after more young. Sizes of colonies vary according to species, and some can produce several hundred workers. After two or three months, young queens and males will be produced and the colony starts to decline. A colony only lasts a single season, and workers and males do not live longer than two months or so. After mating, the young queens go into hibernation over winter in soil or under leaves, and emerge next spring to found their own colonies.

Why do we need bumblebees?

Not only are bumblebees fascinating social creatures but they are vital pollinators that benefit not only our garden flowers but wildflowers and cultivated crops.

For example: currents, strawberries, tomatoes and runner beans

Bumblebees are of enormous commercial importance. Many arable and horticultural crops depend on bumblebees for pollination to varying degrees. Some, like oilseed rape, can set adequate seed without bumblebees provided there are sufficient honeybees. But others, such as broad, field and runner beans and soft fruit crops, depend on them. Without bumblebees there would be little or no crop to harvest. In total the value of Europe's insect pollinators is estimated at €14.2 billion. In some regions where fields are large and there are few hedgerows (in which queens forage in spring and build their nests) crop yields are already falling.



Buff-tailed bumblebee by Alan Price

Do all the different species of bumblebee compete with each other?

Different species have different 'tongue' lengths, specialise in different shapes or types of flowers, or start their nests at different times in the season. This helps to divide up the available food resources so they all get a share. But it does mean they need a wide range of suitable flowers over a long period. However, as they cannot dig underground cavities for themselves, there may be competition among newly emerged queens for nest sites and they can fight each other to the death to secure a nest site. Shortage of rodent burrows in gardens (due to cats and foxes) is likely to make this situation worse and it has been estimated that up to 80% of newly-emerged queens die without successfully founding a nest.

So what should be done?

In order to conserve and restore our remaining bumblebee and insect populations to their past abundance we need to think about conservation on a landscape scale. The reason for this approach is that bumblebee nests are large, containing up to 400 sterile workers, each travelling around 1 km from the colony in search of suitable flowers. Each nest needs many hectares of suitable flower-rich habitat, meaning that to support a healthy population large areas of land must be managed sympathetically. It is important not to manage wildlife in the isolation of nature reserves and essential that the wider farmed countryside and the vast areas covered by gardens are managed in a sensitive way.

We need to;

- ◆ Encourage farmers to adopt appropriate agri-environmental schemes. These actually benefit farmers by improving crop yields at the same time as enriching the countryside.
- ◆ Support the replanting of hedgerows and the recreation of hay meadow and flower-rich grasslands
- ◆ Use wildflowers and traditional cottage-garden plants in gardens nationwide
- ◆ Manage roadside verges and motorway embankments to encourage wild flowers and cut less often



The solution is simple! By whatever means possible we need to create a mosaic of suitable habitat across the whole of the UK. Bumblebees need small patches of wildflowers here and there in field corners, margins, gardens, waste ground, roadside verges and motorway embankments

Common carder bumblebee by Paul Stevens

How do I remove a bumblebee nest from my garden?

Bumblebees are not aggressive and the nest site will probably only be active for a few months of the year, as a colony only last a single summer. So we would urge you to leave the nest undisturbed whenever possible.

Why do bumblebees need gardens?

- ◆ Pollen to feed bumblebee young
- ◆ Nectar to feed bumblebee adults
- ◆ Places for bumblebees to nest
- ◆ A vital habitat due to loss of wider countryside habitat.



White-tailed bumblebee by Darin Smith

Bumblebee menu;

March to April



Bluebell by Alan Price, Gatehouse Studio

Bluebell
Bugle
Pussy willow
Rosemary
Deadnettle
Heathers

May to June



Foxglove by SWT

Comfrey
Foxglove
Honeysuckle
Thyme
Geranium

July to August



Sea Holly by Alan Price, Gatehouse Studio

Cornflower
Lavender
Sea Holly
Teasel
Thistle

Do bumblebees die if they sting?

No, the sting of a bumblebee is not barbed like a honeybee's so they can use their sting more than once but they rarely do unless they feel threatened. When first accosted they are more likely to roll over on to their backs and wave their legs at you.

Did you know?

Bumblebees can beat their wings up to 11,400 times a minute.

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