

## All about Bumblebees

*Bee enthusiast, Maurice White, who advises AEG's bee recording project, tells us why Bumblebees are such fascinating insects and so important to us.*

If you spend any time looking at a patch of flowering plants on a summer day – in your garden or out on a walk - you will notice very soon that the flowers keep being visited by insects. Some of them will be quite large, some very small, some stripy, some seeming quite plain and dark, some hairy and some shiny. All of them seem to have a look at the flowers, some land, some hover just above, but they all seem interested in the flowers, however small they are.

The insects are all providing a service to the flowers – to the whole plant – by picking up pollen from one flower as they push their heads into it and carrying it on their body to the next one of that type that they visit. This process is called pollination and is the first part of the process by which the plants reproduce. All sorts of insects do it, but here I'm going to tell you about some of the larger insects that visit flowers – and ones whose life depends on it.



These are the **bumblebees** – the large hairy ones you often see busily flying from flower to flower and making a bit of a buzzy noise as they do it. If you have a look at them you will see that they're patterned with stripes and coloured tails, even though they are mainly black. They're very good pollinators. Watch them and you'll see that they work hard at it – harder than any other insect. They go from flower to flower and eventually fly off back to their nest. They do this all day through the summer, and they need to. The next sections will tell you a lot about what they are and what they do, and if you know that, you'll be able to watch a creature doing a really important job and enjoy it even more.

### What is a bumblebee?

There are lots of different types of bee that live in Britain, most of them live on their own and are called 'solitary bees'. Bumblebees and honeybees are the only ones that live in groups, and most honeybees are looked after by humans in special hives. Bumblebees are the big hairy bees that you often see on flowers of any sort in gardens or in the countryside. The most common ones you'll see have yellow stripes across their backs and a pale tail but keep looking – others have orange fur on their backs and some are all black with a red tail.

So, Bumblebees are their own special group of insects. They make honey, but only for themselves, so there won't be enough for humans to collect. Leave that to the honeybees! They live in groups of about fifty and they live underground. You'll see them around from about April to September, but you might see one or two in March and into October.

### Are they friendly?

I think bumblebees look lovely and cuddly. They're furry like a teddy bear and they move in a steady way that makes you think they won't suddenly give you a fright. They look friendly, but the best idea is to leave them alone and just watch them. You can get quite close to them – say half a metre – without a problem, but don't try to touch them. This is because they are so busy visiting the flowers that they have no idea that you're there, and you'll surprise them and perhaps make them

cross. They won't attack you or do anything bad if you treat them with respect. They do have a sting that is quite painful, but the main problem is that if they use it, they will die themselves. So enjoy them at a reasonable distance. Try to take pictures of them!

### **What do bumblebees do?**

Bumblebees are important pollinators and they visit flowers all day. They're actually collecting pollen and nectar to take back to the nest where it is used to feed the growing bees. The pollen they



take is stuck to their legs in lumps that you can see. The colour of it depends on the type of flower they've been visiting.

When you see them they will be at some point in that process.

A bee flying about three metres up from the ground and in a relatively straight line is either on its way to flowers or on its way back to the nest. If you see them on flowers they will be first testing by scent to see if the flower has nectar for them, and if it has they will usually land, although they can do this from a hovering buzzing position, and stick their tongue deep into the flower to suck up the nectar. Watch carefully and you will see them quickly rub their bodies down with their legs to scoop the dusty pollen off and then you can see them apparently fiddle their rear legs around as they attach the

pollen to their pollen baskets. They will either walk or fly to another flower. Most of the time it will be the same sort of flower.

### **How do bumblebees pollinate flowers?**



We think of bumblebees as friends of the flowers, but the surprising thing is that the pollination that happens when bees visit flowers is accidental! The bees are interested in collecting nectar and pollen to eat, but because they have hairy bodies, they get covered in pollen every time they visit a flower. They try to sweep it off to collect it, but they always seem to miss a bit, and so when they go to the next flower of the same species, there is a chance that they will leave some of this pollen on it, and the flower can go on to develop seeds.

This isn't a reliable process, although it clearly works. The flowers keep producing pollen and nectar until the seed-making process begins and the bees visit until there is no sign of nectar.

### **Where do bees live?**

You probably will never see a bumblebee nest as they live underground, apart from the Tree Bumblebee. Most bumblebees find a hole in a wall or use the old nest of a mouse. They don't dig their own, although Carder bees build one out of moss and grass. You might find a bumblebee nest in a compost heap and if you disturb it, you will hear a loud buzzing. If you ever notice bees emerging from a hole in the wall, or from amongst grass, you are probably quite close to a nest. The best advice is to leave it alone and feel pleased with yourself for noticing. Whatever you do, don't get too close to it. The bees will become confused by your breath and the carbon dioxide in it.

## Why should we be interested in bumblebees?



Bumblebees are vitally important pollinators, and apart from the contribution their activity makes to the range of food we can eat, they also help provide the beauty of the garden and natural world around us. In themselves, bumblebees are an easily seen part of the biodiversity around us and are delightful in the way they add activity to our view of plants. When we watch bumblebees we can see a creature so very different from us but yet with a purpose to its activity. It is doing what it does deliberately and in a way that is helpful to its family which is often quite far away. Most other animals seek food and water for themselves and their young who are right there with them, or don't even bother with their offspring.

Bumblebees are also indicators of environmental health. If there are the conditions for flowers to grow and places for bees to make nests relatively near, there will be bumblebees. If you can see a range of types of bumblebee in an area, and in good numbers on a pleasant summer day, you can be fairly sure that the local environment is in good condition. Where you see bees you should also see other flying insects busy on the flowers too, and this is also a very good sign.

By monitoring the numbers and types of bumblebee and other pollinators we see, we can know whether the environmental conditions are changing. We can also work to increase the likelihood of bumblebees living in our area.



*We are learning more about our local bumblebee populations through Addingham Environment Group's Bumble bee & Butterfly recording project. Find out more here:*

<https://addinghamenvironmentgroup.org.uk/bees-and-butterflies/>

## What are the main threats to bumblebees?

The main problem for bumblebees is the loss of their habitat, and that the places where they live become disjointed and patchy across the country. Some garden and agricultural chemicals used as weedkillers and pesticides are harmful to bees.

## What can we do to help bumblebees?

*The first thing is to plant flowers to attract and feed bumblebees.* Even a pot of flowers will be helpful. If you aren't able to use your own space, you could join a group in your neighbourhood which works to provide plants for bees. Flowers that bees like to visit include: alliums, borage, catmint, foxglove, lavender, poppies, and most flowering herbs. For lots of advice about how to make your garden bee friendly go to: <https://www.bumblebeeconservation.org/gardeningadvice/>

*Try to avoid using chemicals in your garden.* Weeds can be removed manually quite easily, but are better left as the flowers of, for example, dandelions are very useful to bees, as source of food early in the season. *Join a group such as Addingham Environment Group*, working locally to create more flower rich habitat and support organisations such as *Bumblebee Conservation*.