



Advice Sheet

Bumblebees in the garden

Bumblebees need our help! The gentle buzz of bumblebees working their way along a flowery border is a sound which typifies British summer time. But this sound is becoming rarer, as even the most common species of bumblebee have become increasingly scarce in recent decades; and 2 species have disappeared altogether.

This is due to loss of suitable habitat in the countryside. However a number of species can live in our gardens, so we can easily contribute to their survival, by growing plenty of suitable flowers and providing safe nest sites.

Although bumblebees have stings they are not aggressive and will only use their sting if they feel threatened, such as by being handled roughly. Bumblebees are useful pollinators of soft fruits, beans and flowers.



One characteristic of bumblebees is their very furry bodies. This helps them retain heat, so they are able to fly at lower temperatures than other insects. They are often seen foraging, and so pollinating flowers, much earlier in the year than other bees.

To collect pollen bumblebees have special "pollen baskets", these are concave areas on the hind legs, fringed with stiff bristles. As the bee forages you can see a rapid cycling movement of the legs as pollen is packed into the pollen baskets, these can be easily seen when full.

A worker bee will forage from dawn to dusk. On each foraging trip a bumblebee will visit several hundred flowers and can fly several kilometres. When it returns to the nest it can carry up to 20% of its bodyweight as nectar and 90% as pollen.





The Bumblebee Lifecycle

The first bumblebees to be seen in spring are the queens – the queen is the only bumblebee to hibernate through the winter. The queen is much bigger than the workers, which appear later. As soon as the queen has found some nectar, to replenish her energy reserves, she starts looking for a suitable site to build her nest.



When the autumn cold weather sets in, all but the young queens will die. The later seek out a safe place to hibernate, they are the only ones to survive the winter.



The nest site is usually underground, an abandoned mouse burrow is often used. Inside, the queen first builds a nectar pot, which will sustain her during bad weather. She also begins to build up a pollen larder, which will feed her brood.



Towards the end of summer the queen lays some unfertilised eggs which develop into male bees. Some eggs are also laid which receive extra food and pupate to become new queens. When the males emerge from the nest they do not return, foraging only for themselves. They seek out the new queens and mate with them.



The queen then lays a small batch of eggs. Once these hatch she tends the larvae, feeding them with nectar and pollen. When the larvae are grown they pupate, and about 2 weeks later the first worker bumblebees emerge. These workers will forage for nectar and pollen for the colony, and tend later generations of larvae. The queen can now concentrate on egg laying and does not need to leave the nest again. The workers are smaller than the queen, and will only live for a few weeks.

Providing nest sites

In the spring the Queen bumblebee needs to find a suitable nest site to start her colony. Ideal sites are old mouse or vole holes (they are attracted to the scent of mouse urine!), but they can also find places in tussocks of grass or under dry debris. An area of permanent long grass along a hedge bottom, and overgrown stone wall or even an abandoned log-pile is likely to provide suitable sites.

It is possible to make artificial bee homes, or buy commercial bee boxes, but they are rarely used. However if you want to try making an artificial nest site bury a medium size clay flowerpot in the ground in a dry, sheltered location, preferably warmed by the sun. Use a short piece of pipe (old hose pipe will do) to make an access tunnel. Put some nesting material inside: bits of dry grass, moss, material from an abandoned birds nest or bedding for small rodent pets. Don't use cotton wool as this can get caught up in bee feet.



Plants for bees

Bees need a constant supply of nectar and pollen to feed themselves and the growing larvae, from when the queens emerge in March or April through to September.

Most elaborate double flowers are of little use. Some are bred without male and female parts, or the sheer amount of petals can get in the way of nectar and pollen collection.

Many modern highly-bred varieties are hybrids, and some have little or no nectar and pollen.

“Double” varieties have extra petals, which can often stop insects reaching what nectar there is. To cater for bees, as well as butterflies and other flying insects, it is usually better to stick to simple flowers, such as the old-fashioned cottage garden flowers varieties.

Bees are able to get inside tubular flowers, such as foxgloves and clover, which are inaccessible to butterflies. Different species of bumblebee have different length tongues, so they use different flower species and so do not compete with each other. To cater for several bumblebee species, you will need to plant a variety of species, and ensure there are flowers all through the summer.



Favourite Bee Plants:

Spring

Berberis
Bluebell
Bugle
Flowering currant
Lungwort
Rhododendron
Rosemary
Dead-nettle
Heather

Early Summer

Aquilegia
Borage
Campanula
Clover
Comfrey
Geranium
Foxglove
Honeysuckle
Monkshood
Stachys
Thyme

Late Summer

Cornflower
Delphinium
Lavender
Fuchsia
Scabius
Sea holly
Teasel
Thistles

Bumblebees can forage up to several hundred meters from the nest site, so a colony can visit many different gardens. If your garden has just a few bee plants, it can still provide part of a colony's food requirements.

Other bees found in gardens

Honeybee: these form much larger colonies than bumblebees, numbering many thousands, with one egg-laying queen and many workers. In honeybees the whole colony survives the winter, and a queen can live several years.

Solitary bees: many species of bee are solitary, each female works alone to raise her brood with no help from a caste of workers. Solitary bees will often use small cavities such as hollow plant stems or beetle borings in dead wood to lay their eggs in. It is relatively easy to provide artificial nest sites for these species: many will use hollow stems such as bamboo canes or holes drilled into a block of wood. Solitary bees are often important pollinators.

Cuckoo bee: These breed by laying eggs in the completed nests of other bees, where they will be tended by the hosts workers. There are several species, each of which parasitises one bumblebee species, which it resembles in appearance.

For more information contact Cheshire Wildlife Trust, Bickley hall Farm, Bickley, Malpas, SY14 8EF
Phone 01948 820728
Or visit our web site www.wildlifetrust.org.uk/cheshire