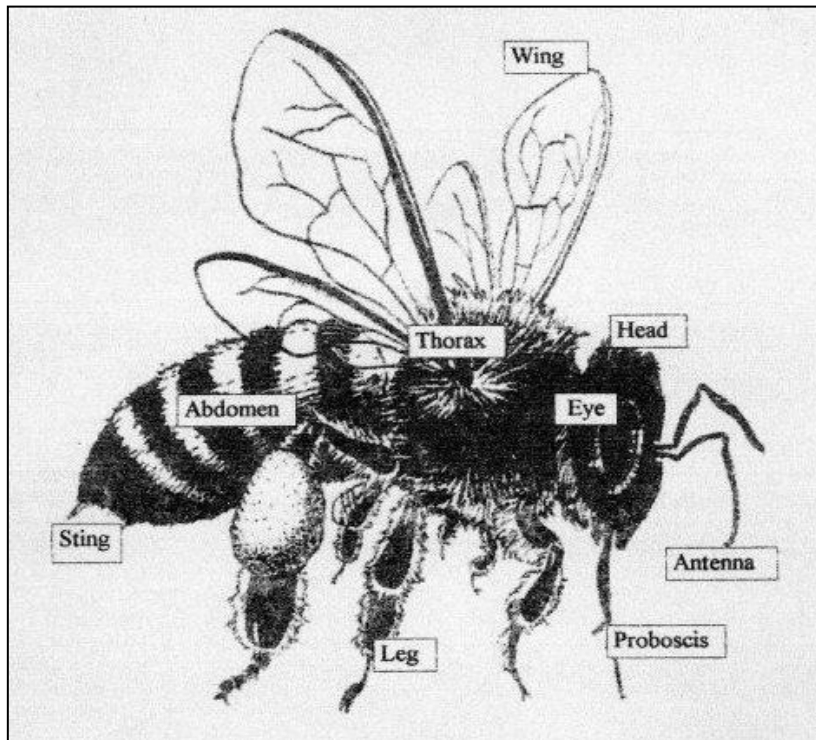


1. What are bees?

All bees are flying insects which:

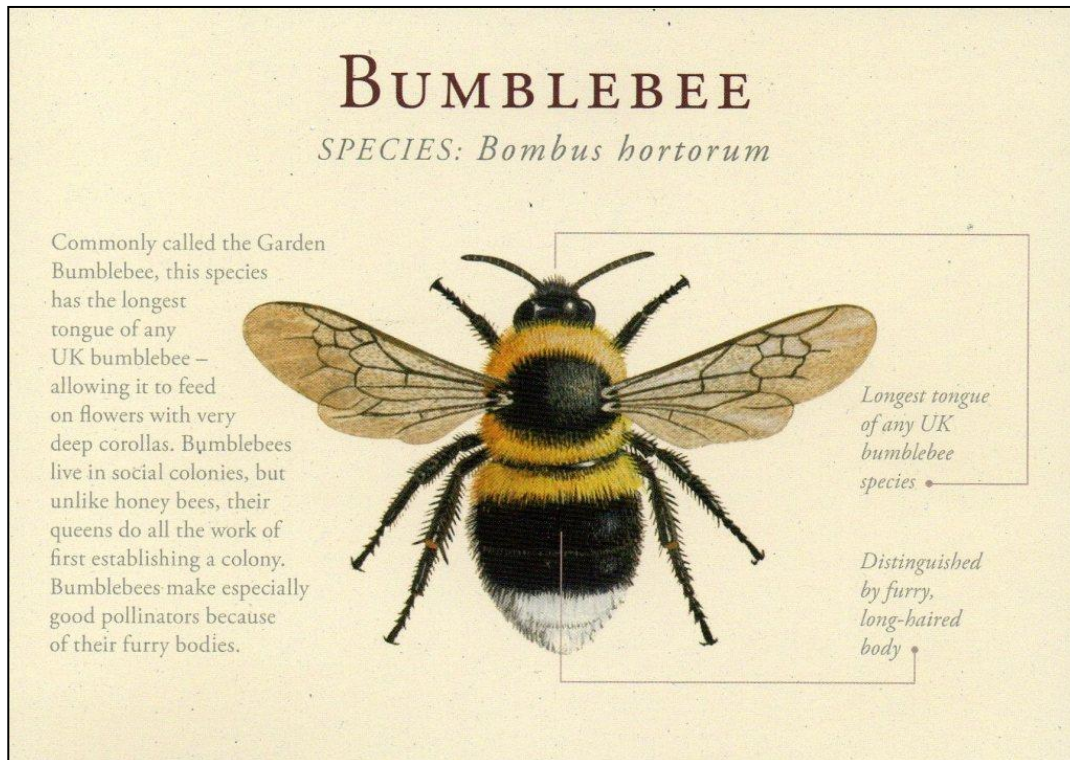
- **Collect pollen and nectar** from flowers as their food and so have similar mouthparts
- Have a **head, thorax and abdomen** with **6 legs**, **4 wings** and **2 antennae** (feelers)



In the UK there are many different kinds of bee (over 220) but these are of three types:

- **bumblebees**
- **solitary bees**
- **honey bees**

Bumblebees



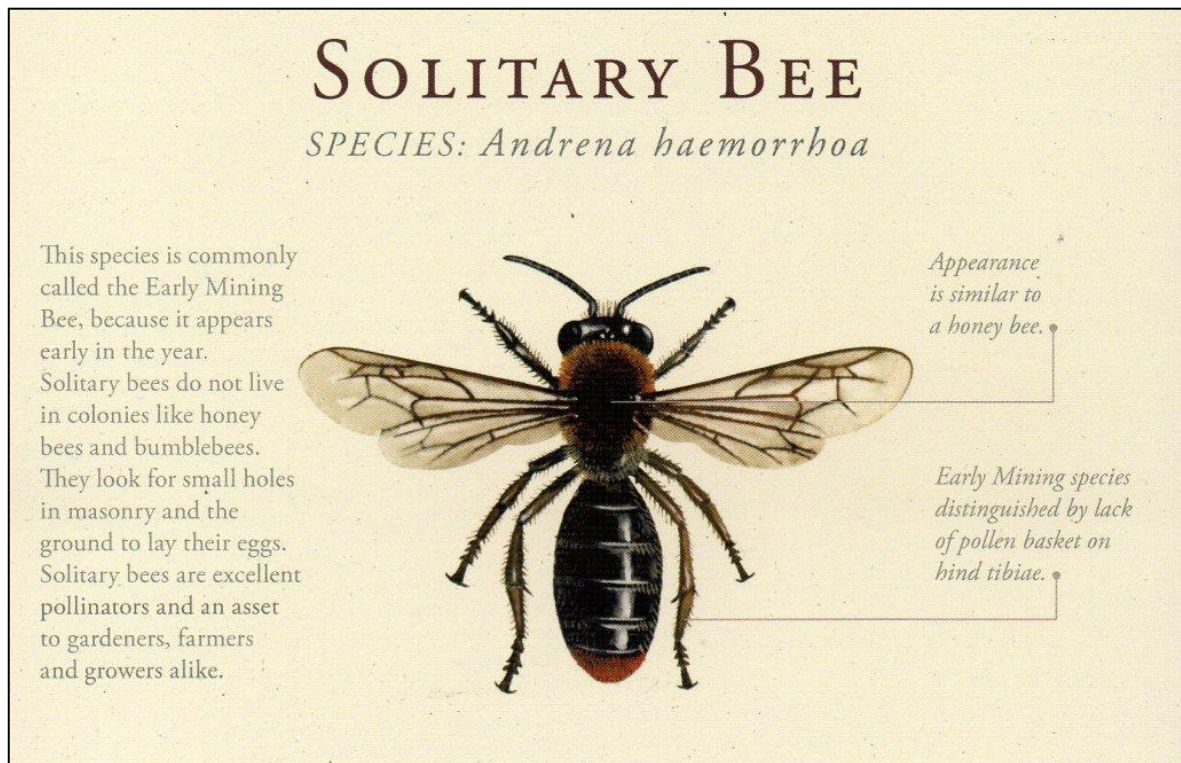
Bumblebees are large furry bees which often produce a deep buzzing sound as they move from flower to flower.

They live in colonies of about 100 and produce small, round mossy-looking nests made of beeswax often in compost heaps, old mouse nests, under buildings or under the ground.

At the end of the season the colony will die out and only new queens will hibernate through the winter.

They do not sting unless their nest is disturbed.

Solitary bees

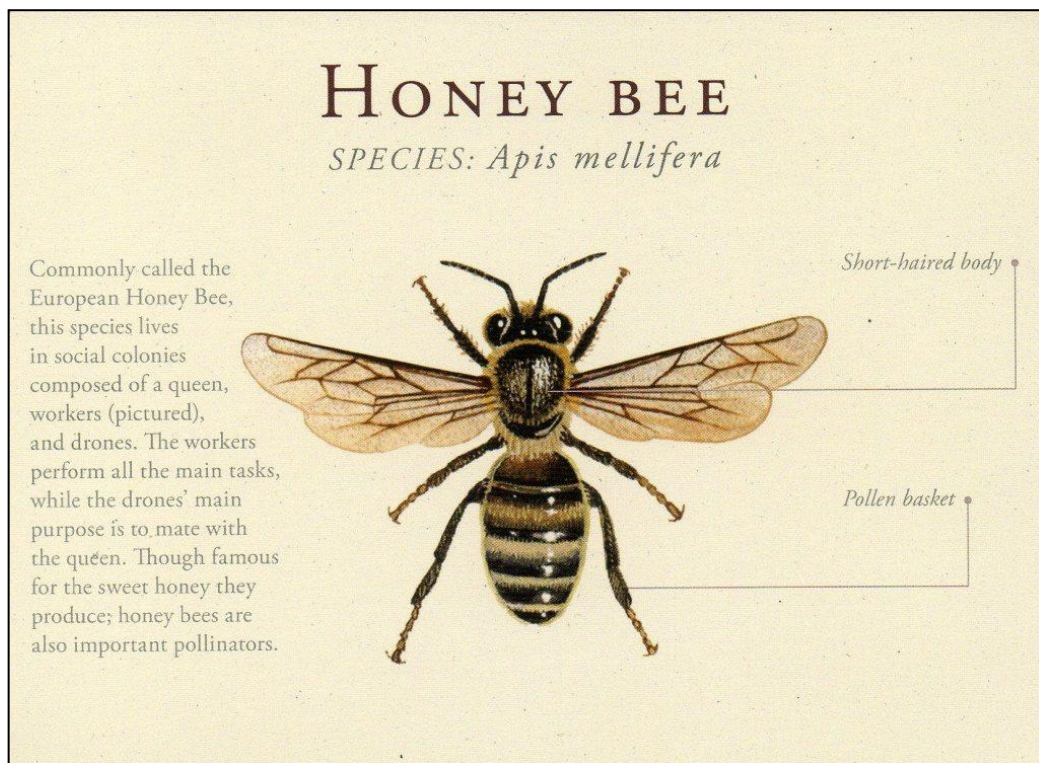


Solitary bees vary widely in size, shape and colour.

There are about 200 different sorts in this country. Alone, a female solitary bee builds her nest alongside nests of other similar females.

They are active only for a few months when the pollen and nectar that they need is available. They are unlikely to sting unless their nests are handled or disturbed.

Honey bees



Honey bees (*Apis mellifera*) are social insects. This means they live together in a **colony**. No single bee can survive by itself. The colony consists of three types of bees: **queen, worker and drone**.

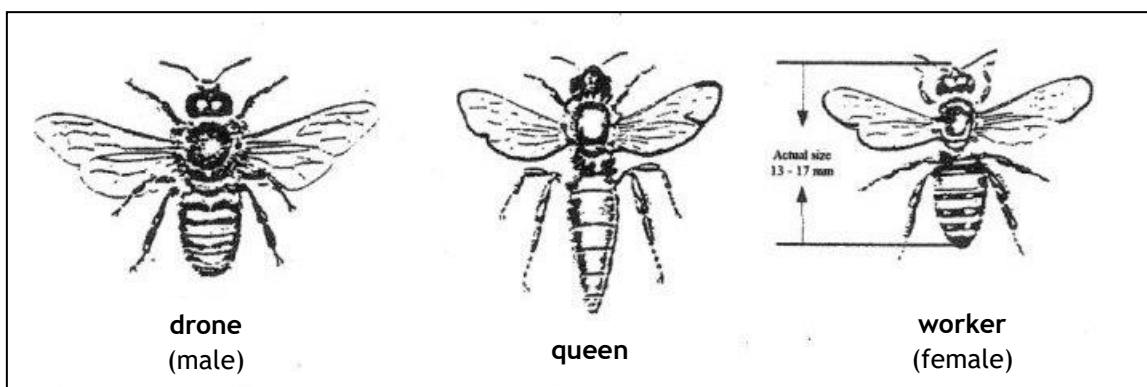
Each type of bee has its own function in the colony:

- ❖ The **queen** lays eggs from which all bees in the colony develop. She does no other work and is fed by the workers. She is like an egg laying machine. In the summer she can lay up to **2,000 eggs a day**: more than twice her own body weight.

- ❖ **Worker bees** do different jobs at different times of their lives:
 - They clean the hive. They feed the queen and the drones. They feed the grubs which will hatch from the eggs the queen has laid in other cells. Grubs develop into bees. They make honeycomb from wax, and store the food in compartments called cells.
 - They guard the hive from intruders like wasps and humans! This is when they may use their sting.
 - They fly many miles looking for flowers. On the flowers they find **pollen** and a sweet sugary liquid called **nectar**. These they collect and bring back to the hive as food for the colony.

- ❖ The **drones** are males and are only reared in the summer when young queens are likely to be around. They mate with the queen bee then they die. Any drones left in the colony in the autumn are thrown out by the worker bees to die.

Types of honey bee



The honey bee's **body** is mainly black but it has **gold, brown or black hairs** arranged in striped bands encircling its abdomen, with stiffer hairs over the rest of its body.

This hairy covering helps the **pollen** to attach itself to the bee as it visits different plants.

Wasps are often confused with worker honey bees. However, wasps feed mainly on other insects and spiders which means that they are useful in keeping down insect pests in the garden. Wasps do not collect pollen so they do not need branched hairs on their bodies. They have very clear black and yellow stripes on their bodies and narrow 'waists' so it is easy to identify them.

Inside a beehive

