

There are 23 species, 17 social and 6 cuckoo

We learnt the various features which make identification possible.

- 1) Firstly is it a bumble bee
- 2) Is it social or a cuckoo
- 3) Male or female.
- 4) Colour of thorax, abdomen, tail and facial hair
- 5) Shape of the face
- 6) Habitat/part of the country.

1) Bumble bees have long visible antenna, four wings and are very hairy.

Solitary bees do have pollen collecting hairs but no corbiculum (see 3 below) on the hind tibia

Flies have 2 wings, even though colouration maybe like a bumble bee

2) Social bees live in colonies and cuckoo bees take over their nests.

Social bees (female) have hind tibia shiny and flat for gathering pollen

Cuckoo bees have no need to gather pollen as they steal from others and therefore have no pollen gathering equipment, their hind tibia have hairs all over. Cuckoos have dark wings, and black hairs on a round face

Bright yellow hairs on the face = social bee

3) Male and female social bees often different

Female has pollen gathering equipment ie corbiculum which consists of a flat shiny surface to the hind tibia, with stiff hairs along the side. Often balls of pollen are visible.

Males have no corbiculum but 13 segments to their antennae, females 12.

4) Colour Note the colours on thorax, abdomen and tail and refer to guide books

5) Shape of face. All Cuckoo bees have round faces, whereas some Social bees have long faces.

The big 7 are:

Bombus terrestris	Buff-tailed bumblebee	Nest
B. pratorum	Early bb	subterranean
B. pascuorum	Common carder bb	aerial
B. lucorum	White-tailed bb	surface
B. lapidarius	Red-tailed bb	subterranean
B. hortorum	Garden bb	subterranean
B. hypnorum	Tree bb	subterranean
		aerial

The life cycle:

The queen mates before hibernating and preserves sperm throughout the winter, in spring she emerges and feeds herself, then looks for a nest which can be subterranean, (eg old mouseholes), surface or aerial (in buildings or trees) depending on the species. She lays her eggs which take 4 -6 days to turn into larvae for 14 days then develop into pupae which finally hatch into bees after 14 days. During this period 4-5 weeks the queen is totally responsible for

their nurture and food of her brood. As the queen lays she is able to designate whether they shall be workers, males or young queens. New virgin queens are fed for longer and pupate for longer.

Cuckoos emerge later than social bees, take on the smell of the social bees' colony and thereby are able to enter the nest and either kill the queen or bully her to the point that she stops laying.

Males can mate more than once and thereafter die quite quickly.

Cuckoo species do not collect pollen and rely on the workers of the host to provide them and their larvae with food.

On that note we braved the elements and in spite of rain saw all the Big 7.