What might move in to your Community Meadow?

If you mention **insect pollinators**, most people think of the Honeybee, but there are so many more types of **insects** which are more important when it comes to pollination. Bumblebees, solitary bees, flies, beetles, butterflies, moths, hoverflies and wasps all share the load of pollinating our wildflowers and crops. In fact, **90% of all pollination is undertaken by wild pollinators.**

Sailor beetle
Cantharis rustica
©Greg Hitchcock

Bombus terrestris
Buff-tailed bumblebee
©Stephen Falk

Honeybees are unable to pollinate some flowers. Plants such as strawberries and tomatoes rely on 'buzz pollination' - the flowers need to be vibrated by bumblebees.

Planting a variety of different flowers will help to support a wider range of different pollinators.

Bumblebees

There are 25 species of bumblebee in the UK, and they are really important as pollinators. However, bumblebees are disappearing - 6 out of the 25 species have declined in numbers by at least 80% over the last 50 years.

Bumblebees are able to remain active in colder weather than Honeybees and so are particularly important pollinators in early spring. Bumblebees and flowers have evolved alongside each other over millions of years, so now some plants can only be pollinated by certain bumblebees. One of these is Monkshood *(Aconitum napellus);* it has a long-throated flower with nectar at the bottom. Only long-tongued bumblebee species like the Garden bumblebee *(Bombus hortorum)* can reach the nectar deep inside.

Take a closer look below at the six common species of female bumblebees that you are likely to see occurring in your garden and the countryside:

1 Buff-tailed bumblebee
(Bombus terrestris)
One yellow band on thorax. Queens very large with a buff tail, white on workers. Nests underground.

2 White-tailed bumblebee
(Bombus lucorum)
One yellow band on thorax with a white tail in both queens and workers. Males have yellow hairs on its face. Nests underground.

3 Garden bumblebee
(Bombus hortorum)
Two yellow bands on thorax with a white tail. Nests underground.

4 Common carder bee
(Bombus pascuorum)
Gingery-brown all over with some black hairs on the abdomen. Nests on the surface of ground in long-tussocky grass.

5 Red-tailed bumblebee
(Bombus lapidarius)
Black all over with a red tail. Males have yellow hairs on its face. Nests underground.

6 Early bumblebee
(Bombus pratorum)
One or two yellow bands on thorax with a red tail. Males have yellow hairs on its face. Nests underground or in holes in trees or in bird boxes.

Honeybees

The majority of Honeybees *(Apis mellifera)* (7) in the UK are not wild - they are "farmed" by beekeepers. Each Honeybee can fly up to five miles a day to search for nectar and pollen. This is why we have the saying 'as busy as a bee'.

One queen will lay up to 2,000 eggs in a day, and in summer there can be around 50,000 bees in just one hive. Honeybees aren't specialists, meaning that they will visit lots of different plants to collect honey and nectar. When a bee finds a large patch of flowers, she (all workers are female) will return to the hive and do a 'waggle dance'. This dance tells the other workers where they need to fly to find a good source of food.

Solitary bees

What some people find surprising is that most of the 240 species of bees in the UK are what we call 'solitary' bees. These bees don't make honey, and don't have queens to lay the eggs, or workers to care for them. Instead, the females do this all themselves.

Some species look very similar to Honeybees; you can tell the difference as they don't have the pollen baskets that you can see on the hind legs of the Honeybees. Solitary bees carry their pollen on their bodies – for example, Leaf cutter bees *(Megachile willbughbiella)* (8) collect pollen on the underneath of their abdomen.

Carrying pollen on your body rather than in a pollen basket is less secure, and because of this, wild bees can be more efficient pollinators as they lose their pollen more easily, spreading it from flower to flower.

Solitary bees nest in hollow plant stems or dig their nests in the ground.

Wasps

Not all wasps sting. In fact they are very helpful – they pollinate lots of our crops. There are hundreds of species of wasp in the UK, although only eight species are social – i.e. they live in colonies and build large nests, such as the Common wasp *(Vespula vulgaris)* (9). The rest are solitary, and make nests in hollow plant stems, beetle holes in deadwood or digging into bare ground.

Wasps primarily feed on other insects but will feed on nectar. Not only are they useful pollinators, but they're really good at keeping down other garden pests. Each solitary wasp species tends to specialise on a particular kind of prey, such as caterpillars, aphids or flies.

There are lots of identification guides available on the internet - some can be downloaded as an app to your phone

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Beetles

Fossil records show that beetles were around 200 million years ago, making them and flies, some of the first insects to pollinate flowers. They are attracted to large, bowl-shaped flowers which are open during the day. Because they rely on their sense of smell for feeding and finding places to lay their eggs, they like strongly scented plants, so flowers which smell sweet, spicy or fermented are particularly irresistible!

Soldier beetles don't visit the flower for the pollen, but come instead to catch the pollen-eaters and drag the pollen along with them.

Butterflies & moths

Butterflies and moths are not as well adapted to pollination as other insects are. They don't have any special structures for collecting pollen – like the pollen baskets on bees. However, they do transfer some pollen on their bodies, and they can travel longer distances to find nectar from the same food plant.

Both butterflies and moths usually feed on nectar (some micro moths feed on pollen).

Night-flying moths are attracted to strongly scented evening-flowering plants such as honeysuckle or jasmine. Day-flying moths will feed on a range of wildflowers.

Flies & hoverflies

Over seventy-one families of flies are flower pollinators, making them the second most important group after bees. Many fruit and vegetable crops are visited by flies and if we didn't have the tiny little midges that visit the cacao flower, we wouldn't have chocolate!

Hoverfly larvae are voracious predators of other bugs, and can be useful allies in the garden controlling aphids and other potential crop pests.

Painted Lady
(Vanessa cardui)

Cinnebar moth
(Tyria jacobaeae)

Marmalade hoverfly
(Episyrphus balteatus)

Hogweed bonking beetle
(Rhagonycha fulva)

Thick-legged Flower beetle
(Oedemera nobilis)