



Common Wasp *Vespula vulgaris*

Familiar social wasps that create a complex structural nest from chewed wood fibres and mud and mixed with saliva. The nest has a cylindrical column known as a 'petiole' for attaching the nest to the substrate. Every wasp nest contains hexagonal cells - the most efficient use of space. Wasps are able to produce a chemical which repels ants which they secrete around the base of the petiole to avoid ant predation.



The only wasps that are able to survive the winter are the young fertilized queens. They emerge in the spring and start to build the new nest. Initially the queen will lay about a dozen eggs that she will feed until they develop into workers (sterile females) and are able to forage for food to feed the new larvae and defend the nest.

As the summer progresses the colony produce new queens and male wasps (drones), the purpose of the drone is to mate with the queen and often after they have achieved this they will die shortly afterwards. The mated queens disperse to find a

place to hibernate ready to begin the new colony the following year. The cold weather will eventually kill the males, workers and original queen.

Adult wasps eat fruit, nectar and other insects, but the grubs are fed mainly chewed-up insects including garden pests. Badgers are particularly fond of wasp grubs and regularly destroy the nests to get to the grubs.

The adult wasp is able to sting several times because the sting lacks any barbs. The sting is a modified egg laying tube or ovipositor, but only the queen will lay the eggs. Queens and workers of the nine species in the British Isles can be identified by their facial and thoracic patterns. The Common Wasp has a black anchor-like mark.



Common Froghopper *Philaenus spumaris*

Have you noticed the froth appearing on the Creeping Thistle (left) in the Meadow sometimes referred to as 'cuckoo-spit'? Well it belongs to the larvae of the Common Froghopper. The larvae protect itself with a covering of froth, produced by blowing watery excrement through a modified anus. The froth has an acrid taste, deterring predators and preventing itself from drying out. The adults are extremely variable with different colour forms and leathery wings held tent-like over the body. Champion jumpers of the animal kingdom - able to jump 70cm into the air, a greater feat than the flea relative to body weight.



Elephant Hawkmoth *Deilephila elpenor*

A common and widely distributed species, on the wing from, May to early August, frequently found in gardens, parks, woodland edges and rough grassland. The adults visit honeysuckle and other tubular flowers for nectar. The most popular larval foodplant is Rosebay Willowherb (see below), but also recorded on fuschias in gardens.

There are about 1,000 species of hawkmoths worldwide, most are found in the tropics. There are nine species resident in the British Isles. Some orchids have become totally dependent on hawkmoths for pollination. They are the only moths able to hover in front of flowers to feed like hummingbirds.



The Elephant Hawkmoth name derives from the caterpillars apparent resemblance to an elephants trunk. The eye spots on the body segments of the caterpillar are a deterrent to predators. When threatened the caterpillar contracts its head segments, this inflates them making the eye spots appear larger. Elephant Hawkmoth caterpillars have a 'horn' on the tip of the end body segment which is black with a pale tip. All hawkmoth caterpillars have 'horns' that differ between species. The caterpillar feeds by night, and will pupate in a flimsy cocoon just under the surface of the soil where it will remain for the winter.

Rosebay Willowherb *Chamerion angustifolium*



Rosebay Willowherb is a herbaceous perennial found throughout the Northern Hemisphere, sometimes abundant on calcareous soil in open fields. Known as Fireweed in the USA, it is often one of the first species to germinate after a forest fire. In Britain this species was considered rare until the 18th C when it became more widespread possibly due to the expansion of the railway network and associated soil disturbance. The plant became known as bombweed during the 2nd World War due to its colonization of bomb craters.