HABITATS FOR POLLINATORS

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Pollinating insects are an incredibly important part of any ecosystem as their pollination services provide food for wildlife, livestock and ourselves. In the Welsh countryside there are lots of different types of insects that pollinate flowers including bees, butterflies, moths, wasps, flies and beetles. These insects will be found in a wide variety of habitats and their requirements are relatively simple. They need flowering plants to gather nectar from as this is their principal food. Some will also gather pollen for food and it is while they are gathering their food that they transfer pollen grains from flower to flower resulting in pollination. Some of these species will be very choosy about which flowers they visit whereas others are more generalist.

In addition, the insects require a suitable place to nest and rear their young. This might be a hollow cavity in a tree, plant stem or wall, or it might be underground in an earth bank. Some lay their eggs directly onto specific plants that the young then feed on whereas others make nests in tussocks of grass.

FARMLAND HABITATS FOR POLLINATORS

HEDGEROWS

Image 1. Tall diverse hedge

Hedgerows make great pollinator habitats as well as providing food and refuge for a wide variety of birds, mammals and other insects. Hedgerows are often made up of a variety of plants and trees which widens their appeal to a wide range of insects. Common hedgerow species include hawthorn, blackthorn, holly, crab apple and hazel. All of these provide nectar and pollen for insects predominantly in the spring as these plants are some of the earliest in the season to flower. This makes them an important resource as the insects are establishing their nests and beginning their breeding cycles. The fruits produced as a result of the insect pollination then become important food resources for other species including birds and mammals which demonstrates how an ecosystem develops.

GRASSLANDS AND MEADOWS

Image 2. Meadow

Species-rich grasslands are an important resource for many types of insects but sadly, this type of habitat has declined dramatically. Grasslands and meadows that have not been improved for agricultural purposes are filled with a variety of grass and flower species which provide food and nesting sites throughout the season. Common plant species in lowland meadows include oxeye daisy, common knapweed, red clover, bird's-foot trefoil and yellow rattle. In upland meadows there will be a different variety of species including pignut, tormentil, lady's mantle and eyebright. In addition, the grass species in these meadows will include sweet vernal, crested dog's tail, cocksfoot and common bent.

HEATHLANDS

Image 3. Bilberry & Heather

Wales is blessed with some important areas of upland heath. This is characterised by dwarf shrubby plants including heather, bilberry, crowberry and gorse. Wet heath has slightly different plants with carpets of sphagnum moss as well as cross-leaved heath, deer grass and purple moor grass. In the summer these plants provide food and shelter for a wide range of insects which are preyed upon by upland birds including skylarks, pipits and grouse.

WOODLANDS, SCRUB AND DEAD WOOD

It is often at the edge of woodlands and forests or in clearings that you will see the most insect activity. This is where plants such as brambles, knapweed and rosebay willowherb proliferate which are extremely attractive to insects when they flower. The shelter that the woodland areas provide are important as nesting or hibernation sites for the adult insects such as queen wasps and queen bumblebees. Dead wood is favoured by many insects that create burrows to lay their eggs. This in turn, provides an important food resource for birds such as woodpeckers.

Image 4. Woodland edge

WETLANDS

Wetlands might not spring to mind when thinking of pollinating insects but they provide some valuable habitats in the form of rivers, streams, ditches, ponds, marshlands and bogs. Many of the pollinating hoverflies require water to complete their lifecycle and they lay their eggs into shallow water where the larvae feed on rotting vegetation. Many of the flowers associated with wet, boggy areas, such as water mint and purple loosestrife, are very attractive to the adult insects and provide an important food resource.

Image 5. Purple loosestrife

AGRICULTURAL CROPS

There are many agricultural crops that rely on insects for pollination which increases crop yield and quality. These crops include oilseed rape, field beans, peas and borage. While these may not be widespread across Wales there is increased interest in growing peas and beans as protein crops on livestock farms and these require pollination to produce their seeds. Other legumes such as white clover, red clover, sainfoin, lupins and lucerne also require insects to pollinate them and these plants are becoming more important in livestock production systems. Herbal leys are another source of food for pollinating insects and there is a rise in interest from farmers looking for the benefits that herbal leys can bring to their systems.

Image 6. Sainfoin

THE BENEFIT OF A MOSAIC OF HABITATS

All of the habitat types are important for pollinating insects and other wildlife. Many farms will have several of these habitat types providing a mosaic of resources with plants that flower at different times of the year. This is important to ensure that there is a continuous supply of food for the insects throughout the season. By providing habitats that are suitable for pollinators it will ensure that the local population of insects is available to pollinate the crops that are planted in the locality.

Image 7. Marshy flowers

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