

# Habitat, Plant and Pollinator Guide

## Feeding habitat

### Flower beds or pots



Includes flowers in planters or pots, raised beds and borders

### Wildflowers



Includes wildflower meadows and grassy verges

### Trees



Includes trees, orchards, shrubs, bushes and hedgerows

## Nesting and shelter habitat

### Bare ground



Includes bare earth and bee banks

### Man-made homes



Includes bee hives, solitary bee houses and bumblebee nests

### Damp places



Includes ponds, ditches, compost heaps and log piles

## Other

### Bare walls or fences



Includes brick or stone walls and wooden or metal fences

### Concrete or tarmac



Includes paths, roads, car parks and playgrounds

### Short grass



Areas where grass is mown or grazed by animals

# Plants

## Woody plants

### Blackthorn



Oval leaves, long spines, white flowers, blue-black fruit

### Hawthorn



Deeply lobed leaves, spiny branches, white flowers, red fruit

### Fruit trees



Includes cherry, apple, plum. White or pink flowers

### Willow



Narrow leaves, fluffy yellow catkins in spring

### Bramble



Thorny trailing stems, white or pink flowers, blackberry fruits

### Ivy



Climbing stems, glossy leaves, flowers yellow-green, clusters of black berries



# Plants

## Buddleia



Thick leaves, paler on underside, dense purple flower spike

## Wild Rose



Thorny stems, pink/white flowers, red rosehips

## Garden plants

### Chives



Round purple flowerhead, onion smell when bruised

### Marjoram



Pointed-oval leaves, sweet-smelling pink/purple flowerheads

### Mint



Flowers in rings, minty smell when bruised

### Lavender



Grows in clumps, fragrant blue or white flowerheads

# Plants

## Heather



Low growing plant, woody stems, bell-shaped flowers

## Sea Holly



Waxy grey spiked leaves, bright blue flowerheads

## Sedum



Stonecrops and Iceplant. Fleshy leaves, clusters of small flowers on flat, bright flower head

## Verbena



Pink flowerhead in cluster at top of stem

## Wild plants

### Daisy



Includes Oxeye. White petals round yellow centre

### Clover



Three-part leaves, round-oval pink/white flower-heads



# Plants

## Umbellifers



Several species. Hollow stems, clusters of small flowers on flat white flower head

## Willowherb



Tall, slender plants, long slender leaves, purple/white flowers

## Thistle



Spiny waxy leaves, globular purple/white flowers

## Knapweed



No spines, thistle-like purple flowers

## Nettle



Stinging leaves and stems, white flowers not always apparent

## Dead-nettle



Similar to nettle but does not sting. Purple/white flowers

# Plants

## Dandelion



Hollow stems that bleed white if picked, toothed leaves, yellow flowers

## Ragwort



Flowers globular, yellow, clustered at top of stem

## Buttercup



Divided leaves, cup-shaped, glossy yellow flowers

## Vetches



Includes Bird's-foot Trefoil, triplet leaves, yellow flowers often with orange base

This activity was created by the Open Air Laboratories Network (OPAL) for Polli:Nation, a Heritage Lottery funded biodiversity and education project. Led by Learning through Landscapes, the project will support schools across the UK to transform their grounds into pollinator friendly habitats. This network of schools will spread knowledge, gather data and create 'green stepping stones' to assist insects in moving between areas. More information on Polli:Nation can be found at [www.polli-nation.co.uk](http://www.polli-nation.co.uk)



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# Pollinators

## Bumblebees

Hymenoptera



Long antennae

Two pairs of see-through wings

Round furry body, 8-30mm

## Honeybees

Hymenoptera



Long antennae

Two pairs of see-through wings

Striped ginger brown body, 5-15mm

## Solitary bees

Hymenoptera



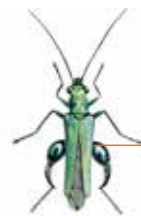
Long antennae

Two pairs of see-through wings

Narrower body than bumblebee, 3-15mm

## Beetles

Coleoptera



Hard outer wing cases (elytra), wing cases meet in the middle forming a T shape

Various sizes



# Pollinators

## Butterflies

Lepidoptera



Clubbed antennae

Butterflies rest with their wings closed vertically over their body

Various sizes

## Moths

Lepidoptera



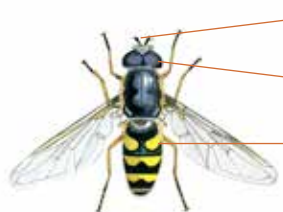
Most species have feathered antennae

Most moths rest with their wings open

Various sizes

## Hoverflies

Diptera



Short club-like antennae

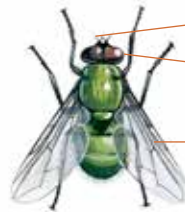
Large eyes

Striped body

Hovers or darts in flight, various sizes

## Other flies

Diptera



Short antennae




Large eyes

One pair of see-through wings

Various sizes



# Species Quest

-  Where to look
-  Identification features
-  Why we'd like you to record this species

## Red Admiral (*Vanessa atalanta*)



Present in all countries of the UK occurring in all habitats. Caterpillars feed on Nettle. Adults nectar on many flowers especially Buddleia and Ivy (Mar-Oct)

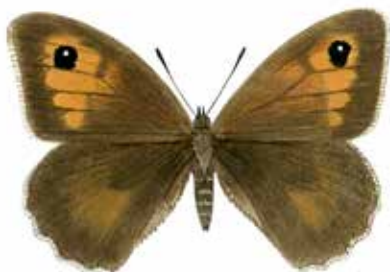


A bold and striking butterfly, mostly black with two red bands and white markings. Wingspan 64-78mm



How many can you spot and how early are they seen?

## Meadow Brown (*Maniola jurtina*)



Present in all countries of the UK and an indicator of grassy places such as meadows, road verges and gardens. Caterpillars feed on fine-leaved grasses. Adult butterflies seen fluttering across grasses often feeding on Daisy species and Bramble (Jul-Sept)



Mainly brown with orange patches on the forewing and a black 'eye-spot' with a white dot. Wingspan 40-60mm



Can you attract more by creating areas with long grass?

## Brimstone (*Gonepteryx rhamni*)



Present in England and Wales, rare visitor to Scotland and Northern Ireland. Caterpillars feed on Buckthorn. Adults often seen flying along hedgerows and wooded areas (Mar-May and also Aug-Sept). Attract by planting Buckthorn



Vivid yellow-green colour with leaf shaped wings. Always rest with wings closed. Wingspan 60-74mm



Will providing nectar along hedgerows early in the year boost numbers?

# Species Quest



Where to look



Identification features



Why we'd like you to record this species

## Holly Blue (*Celastrina argiolus*)



Caterpillars feed on Holly flower-buds in the spring, Ivy flower-buds in the autumn. Adults often seen flying high above and around bushes and shrubs (Apr-May and also Aug-Sept)



A bright blue, small and fast flying species. Wingspan 26-34mm



Common in England and Wales, is this species expanding its range in Northern Ireland and Scotland?

## Six-spot Burnet (*Zygaena filipendulae*)



Present in all countries of the UK. Caterpillars feed on Bird's-foot Trefoil. Adults seen in grassy areas (June-Aug)



A long, thin black moth with 6 separate red dots on each wing and thick, black antenna. Wingspan 25-39mm



An indicator of flower-rich grassy places, how flowery is your grassland?

## Marmalade Hoverfly (*Episyrphus balteatus*)



This species will be seen busy nectaring on a variety of flowers. In a good year large numbers can be seen



Red eyes. Thin 'moustache-shaped' line between the orange/yellow bands. Body length 20mm



Found in all countries of the UK. This species can migrate in large numbers from continental Europe. Is it becoming less common?

# Species Quest



Where to look



Identification features



Why we'd like you to record this species

## Red-tailed Bumblebee (*Bombus lapidarius*)



Common in lowland England, Wales, Scotland and Ireland. Collects pollen from a wide range of flowering plants, including native wildflowers and some garden plants



Body all black with a red tail. Males have yellow faces and yellow stripes. Look out for pollen sacs on the hind leg



Is it spreading into Northern Scotland?

## Common Carder Bumblebee (*Bombus pascuorum*)



A long tongued bee that collects pollen from deep tubed flowers including Foxglove and Dead-nettles



A ginger brown bumblebee with black hairs on the body. Body length 10-15mm



Widely distributed throughout the UK. Is it becoming less common across the UK?

## Ashy Mining-bee (*Andrena cineraria*)



Widely distributed in England, Wales and Northern Ireland. Collects pollen from many different plants, including Buttercups, Brambles and Wild Roses. Look out for colonies of this species in the spring where bare earth banks are in full sun



Glossy blue-black abdomen. Grey hairs on the thorax. Body length 12mm. Active in Spring



Is this species spreading into Scotland?



# Species Quest



Where to look



Identification features



Why we'd like you to record this species

## Honeybee (*Apis mellifera*)



Widely distributed. Honeybees can be active all year round, including mild days in the winter



Smaller than a bumblebee. Brown bands on the black abdomen. Body length of workers 14mm



This species is kept in hives by beekeepers, but there are also feral populations. Is it becoming less common?

## Thick-legged Flower Beetle (*Oedemera nobilis*)



Only found in England and Wales. Often seen on open flowers, including Hawthorn and Hogweed



Elongated body with long antennae. Wing cases metallic blue-green that don't meet in the middle. Body length 12mm



Once common in gardens in England and Wales, numbers have fallen in recent years. Is it doing better in urban or rural areas?

## Red Soldier Beetle (*Rhagonycha fulva*)



Often seen on the flower heads of Umbellifers where they are often found together in large numbers and many of them will be mating



Black antenna, long red/orange body and head, wing cases with black tips. 7-10mm long



Once common in gardens, numbers have fallen in recent years. Is it doing better in urban or rural areas?