



# Biodiversity in schools

...with Paddy Madden

## Noticing your surroundings

Take the time to notice nature as the days get longer and warmer right up until the 21 June, the longest day in the year.

Creamy white elder flowers cover the hedgerows while white and pink wild roses blossom. The white flowers of cow parsley that have been covering road verges since April are beginning to fade.

The road verges will remain white as the hogweeds appear. Both cow parsley and hogweed are umbellifers. This means that the flowers are held up by short stems that appear like ribs on an umbrella.

The common blue butterfly can also be seen. The females are looking for a plant called bird's foot trefoil on which to lay their eggs. The caterpillars eat the yellow flowers. In shady areas you will see the purple flowers on foxgloves. Bumblebees are attracted to flowers because of their pollen and nectar.



## Sunflowers

If in May, you sowed sunflower seeds in milk cartons and cut them into halves, they should now be planted outside in June because there is no danger that frost will kill them.

If you have no garden, you can plant them in large pots which are at least 30cm in diameter. Make sure to place a bamboo can in the pot and tie the stem loosely to it with string. Feed every 10 days with liquid seaweed.

## Butterflies

Using a stick so you will not be stung, look at the leaves of nettles to see can you spot the black caterpillars of the peacock butterfly. They are spotted with white dots and have lots of little spines. They make a tent on the plant by tying some leaves together with silken thread so that they can eat in safety.

When these leaves are eaten, they make another tent. The greyish green or greyish black caterpillars of the red admiral can also be seen in nettle tents now. They have black heads and plenty of spines. This butterfly migrates from north Africa to Ireland in mid-May. On grassy roadside verges you will see the speckled wood, ringlet and meadow brown butterflies. All these lay eggs on tall grasses.



their pollen to female flowers. These flowers depend on the wind to carry their pollen from male to female flowers. They do not need to be scented or coloured to attract insects.

- Nettles are very good to eat when they are young. The leaves can be cooked like spinach and can also be made into soup. Years ago, it was used to cure many illnesses, especially rheumatism.



## The elder

The hedgerows in June are covered with masses of creamy white, elder flowers. These have a lovely scent and can be gathered and washed to make elderflower cordial. When these flowers are pollinated by bees and other insects they will turn into purple berries in the autumn.



## Wild rose and woodbine

Pink and white wild roses suddenly appear on hedgerows this month. When these are pollinated, they will change into scarlet rose hips in the autumn. Rose hip syrup is made from these. Because they

are rich in vitamin C, they were gathered by children during World War II to make syrup because it was difficult to import oranges and lemons due to the danger of cargo ships being blown up at sea. Vitamin C is essential for good health and nowadays we get enough from eating these citrus fruits.

Woodbine or honeysuckle flowers can also be seen in hedgerows now. These have a lovely scent especially in the evening and at night. Moths are attracted by this scent and as they eat the nectar, they carry pollen to other flowers. Moths are eaten by night-flying bats.

Sun → Honeysuckle flowers →  
moths → bats

### Common grasses

Plants that are pollinated by the wind do not have the striking colours and strong scents of insect-pollinated plants. Colour and scent attract insects. The flowers of grasses are dull because they only require wind to scatter their pollen.



One common grass seen now on roadside verges and hay meadows is cocksfoot. This coarse grass is very nutritious and good for feeding cattle.

However, it is also valuable for biodiversity because four species of butterfly rely on it as a larval food plant. The four brown butterflies that lay eggs on this plant are the meadow brown, the speckled wood, the wall brown and the ringlet.

It can grow to 120 centimetres in height with flower-heads that are supposed to look like birds' feet.

Another valuable native fodder grass commonly seen now on road verges and in hay meadows is meadow **foxtail**.

It grows to between 40 and 100 centimetres in height and produces a cylindrical, silky, greenish spike at the top of the stem.



### Solitary bees

There are 77 species of solitary bee in Ireland. They are all excellent at pollinating plants. They do not live in colonies like honeybees or bumblebees.

If you erect a solitary bee nursery like the one in the picture in a sunny place you may attract them. Mason bees and leafcutter bees are two species that may use the box. These bees collect pollen and nectar and leave little cakes of this mixture in the cavities for their larvae. Each cake is in a chamber of its own. Leafcutter bees seal each chamber and the entrance with a piece of leaf.



Look at rose leaves and you will often see little discs cut out by these bees! Mason bees seal each chamber and the entrance with mud. When the eggs hatch in the little chambers the grubs eat the pollen and nectar. They then turn into pupae. They remain as pupae all over winter.

### Wild plants in June

Foxglove (*Ius mór*) displays spikes of purple-pink bells from June to August. A finger can easily be inserted into any of the tubular bells.

'*Ius mór*' means the great herb. It was used to treat heart conditions when the drug digitalin was extracted from its seeds and leaves. All parts of the plant are poisonous, so it is safe practice to wear gloves when handling any part of it. Bumblebees can take nectar from it because they have long tongues.

Hedge garlic (*bóchoinneal*) is sometimes called Jack by the Hedge. In May the female orange tip butterfly lays eggs on its flower stems. These will hatch into caterpillars that will eat the seed pods and seeds for about a month. Then they will turn into pupae and hang off dry stems for nine or ten months as pupae or chrysalises.



Dog rose (*feirdhris*) bears pale pink or white flowers in June but for the rest of the year remains unseen. These flowers with their five notched petals are scented. The stamens in the centre are yellow. After pollination and fertilisation, these

flowers will become scarlet rose hips. These are rich in vitamin C and were collected during World War Two to provide rose-hip syrup for children, and women who were pregnant.



Honeysuckle (*féithleog*) winds its way clockwise through the hedgerow as it seeks branches to cling onto and light so that it can produce flowers. These creamy



white flowers which eventually change to a pinkish-yellow colour are strongly scented, especially in the evening.

Hawk moths attracted by this scent use their long tongues to extract the plentiful nectar and carry pollen to another flower. Pollinated flowers become bright red berries in the autumn. These are poisonous to humans but not to birds and other animals.

Elder (*trom*) produces creamy white blossoms in the hedgerows in June. These flowers are used to make wine, cordials and elderflower water which is used as



a skin cleanser. They turn into purple berries in the autumn. These are used to make wine, jellies and chutneys. The elder is an unlucky tree. In Ireland it was considered unlucky to bring the flowers indoors, make cradles from its wood or burn it. The town of Trim in Meath is named after the elder. In Irish it is called *Baile Átha Troim* which means the town of the ford of the elder.



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