The countryside charity
Hertfordshire

Countryside close to home

Spring flowers and butterflies

Over the last 70 years our wildlife has been in decline, with changes to the way the countryside is managed having a severe impact on many species. Although most gardens are small, collectively they provide a huge haven for our wildlife, and with a few small changes many gardeners can make them even better.

These notes introduce you to some of the wildlife in my garden which has arrived by itself, as well as some of the plants I've brought here to attract species like pollinating insects. I also suggest some gardening tips, to make your garden more wildlife friendly and to protect the wider environment.

All the photographs taken by me in my garden unless otherwise indicated.

Peacock butterfly

Spring wildflowers are often yellow. Why? Nobody knows for certain but to explain the possible reason here's a little botany. The main purpose of flowers is to enable plants to reproduce themselves. Some species can do this vegetatively, spreading by runners or suckers for example, but many produce seeds which germinate to produce the next generation.

Look closely at a flower like this garden tulip (right) and you'll see the pollen-covered anthers surrounding the stigma, here pale cream in colour. The way these are arranged varies hugely in different species but they have the same function.

The anthers produce pollen, while the stigma receives pollen which leads to the flower being fertilized, promoting the formation of seeds. Normally the pollen is carried to the stigma of another flower, a process called cross-pollination.

Showy and colourful flowers usually indicate that they are pollinated by insects (and sometimes by other creatures including birds and bats), which carry pollen between flowers. Bright colours and scent attract the pollinators, and insects feed on the pollen and on nectar which flowers also provide.

Many flowers are specially shaped to ensure that pollen carried by visiting insects reaches the stigma. For example in foxgloves bees go right into the tubes to reach the nectaries where the nectar is stored, at the far end of each flower.

Other plants are wind-pollinated: they may have small inconspicuous flowers but shed masses of pollen which is blown to other flowers. Their flower parts often form catkins or hanging tassels, such as oak (see photo left – taken on the edge of a Hertfordshire woodland). Many trees are pollinated this way.

A hand lens or magnifying glass is useful for looking at small flower details.

Or if you have binoculars you can reverse them and look through one side like a telescope – hold the eyepiece close to the object you want to see enlarged.

So why are many spring flowers yellow? At this time of year flowers are still quite scarce and so the yellow colour makes them easy to spot. Early flowering plants with good supplies of nectar are very valuable, as they support early bees, butterflies and other insects at a time when there are relatively few flowers around.

Here are six yellow flowers I've photographed in my garden which are native to Britain and can all be found flowering in Hertfordshire's countryside. I've left out details of exact flowering times because every spring is different – some mild, some cold – and this affects the date when flowers first appear.

Cowslips

Lesser celandine

This plant is related to buttercups and is one of the first of our native wildflowers to appear in spring. Never planted by me, it pops up everywhere in my garden. It is usually regarded as a weed, but why dig up this colourful flower? You may see it growing in huge sheets in some places. It has pretty heart-shaped leaves.

In early Greek medicine – which used plants a great deal – the 'doctrine of signatures' led herbalists and physicians to use parts of plants that resembled body parts to remedy ailments in that part of the body. The lesser celandine roots are tubers which resemble haemorrhoids or piles; they were used to treat that condition and gave the plant one of its folk names – pilewort.

It is also an important plant for early bumblebees, as it has masses of pollen which is food for these insects. Pollen gives them protein and oils, adding to the sugar they find in nectar-rich plants.

The flower opens wide in sunshine and warmer weather but the petals close in dull cool weather. The botanical name for lesser celandine is *Ranunculus ficaria,* not to be confused with greater celandine (*Chelidonium majus)*, an entirely different plant related to the poppy, which flowers later in the year.

Primrose

The primrose comes into flower at about the same time as the celandines and they may bloom together for weeks. From a single plant introduced into my front garden in the shade of some deciduous shrubs, there are now dozens of plants, and new seedlings pop up every year.

Deciduous describes trees and shrubs which drop their leaves in autumn.

The *prima rosa* (meaning first flower) is often associated with Easter (although the date of Easter varies by five weeks). In drier areas of the country, primroses in the wild tend to prefer light shade and are found under hedges as well as in deciduous woods, especially those once coppiced or cut down and allowed to regrow on a regular basis. In wetter western areas they grow more or less anywhere. In the past they were widely picked and sold, a practice discouraged now, although it appears that picking the flowers doesn't cause the plants to decline.

Digging up any plant in the wild without the landowner's permission is illegal, but primroses like many other plants can easily be grown from seed, and plants can usually be bought at plant sales and nurseries, or online.

The primrose (*Primula vulgaris)* is a cousin of my next flower, the cowslip (*Primula veris)*. They share the first name (*Primula* – always with a capital letter) which shows they belong to the same genus, or group of plants with shared characteristics. The second name always has a lower-case letter.

Cowslip

Cowslips are plants of open grassland including the high chalk downlands of the Chilterns and north and east Hertfordshire. Today they are also widespread on motorway and dual carriageway embankments, where they have been introduced in seed mixes aimed at greening excavation scars.

In my garden I've planted them into grass which is either never mown or left to grow until the flowers have shed their seed, then cut later in the summer. This means that the cowslips are spreading and their clumps are getting larger too.

They generally come into flower a little later than primroses. While primroses are associated with the celebration of Easter, cowslips were traditionally linked to May Day and also the first Sunday in May, when they were used to decorate churches.

The long flower tubes ensure that bees visiting the flowers to find nectar push right into the tube, so that the pollen they are already carrying on their bodies reaches the stigma.

Cowslips declined dramatically after the Second World War due to large-scale ploughing of their grassland habitats and widespread use of herbicides. Fortunately they have become more abundant in places where grassland is managed for conservation. This includes, as Richard Mabey notes in his wonderful book *Flora Britannica,* at Tring Park where grazing is now less intense.

Dandelion

Most gardeners know that dandelions turn up everywhere and treat them as a weed. I'm learning to become more tolerant of dandelions in my lawn because it's another plant which is an important source of early nectar and pollen for bees and other insects. I'm leaving my grass a little longer so that the dandelions and other low-growing flowers don't get cut. I used to try to dig dandelions out from the grass, often unsuccessfully because even a tiny piece of the long tap root will regrow if left behind. The botanical name for dandelion is *Taraxacum officinale*, but the common English name derives from the French *dent de lion,* describing the appearance of the leaves.

Dandelions can be in flower from March to October and even during mild winters as well. The outer yellow parts of the dandelion head are not petals but bracts, which enclose a mass of tiny flowers each with its own anthers and stigma. These turn into the classic dandelion 'clock' of seedheads, which birds like goldfinches love to eat. The parachute-like seeds are easily caught by the wind and spread far and wide – one of the reasons why gardeners dislike them so much.

I'll still dig dandelion seedings out of my borders though, which is easy enough to do if you catch them early.

Dandelions traditionally were used as a laxative and diuretic, and to protect against gout. The leaves are sometimes added to salads and used in sandwiches, although taste rather bitter. The flowers can be made into wine, while the roots have been used as a coffee substitute.

Marsh marigold

These plants of waterside places will also grow in wet meadows and wet woodland. The botanical name, *Caltha palustris,* gives a clue to their habitat, as *palustris* means swampy or marshy in Latin. It is also commonly known as king cup.

Caltha comes from the Greek, kalathos, meaning a cup. The plant is another member of the buttercup family.

When I first had a pond in my garden this was one of the first plants I introduced to its margins. Since then it has spread around the pond by seed. It is a true sign of spring, being the first of the pond plants to flower, often quite early in March; sometimes it will last until May.

This flower has no petals: what look like petals are actually the sepals which cover the bud as it is forming. In some flowers the sepals are inconspicuous and papery, but in this species they give the plant its beautiful and regal appearance.

The plant was once used to treat skin rashes.

Yellow flag or iris

The yellow flag or iris is one of two native iris species in Britain. Yellow flag is one of a group of irises which prefer damp or wet conditions and in the countryside it is often seen bordering rivers, lakes, ponds and ditches where there are shallow margins. Its sharp-edged leaves appear first and the flowers emerge from between two leaves.

The flowers have three of everything, including the broad sepals which are also known as falls and slope downwards. They provide a landing platform for bees which delve between the narrow central petals to reach the nectaries at the base of the flower.

The yellow flag (*Iris pseudacorus*) has a cousin, the gladdon or stinking iris (*I. foetidissima*), often found in woodland. The flowers have purple falls and yellow petals, and develop into bright orange seeds later in the year. If the leaves are crushed they emit a smell which some people think resembles roast beef.

Other wildlife in my garden

Warm spring sunshine will bring out early butterflies – some of them species which over-winter as adults rather than as eggs, caterpillars or pupae. These include the sulphur-yellow brimstone (left), which always keeps its wings closed together when it visits a flower. Another is the peacock (see the photo on the first page).

Butterflies feed on nectar which gives them energy to fly and find a mate. Nectar-rich plants need to be flowering at the same time as the butterflies are out and about.

Good nectar sources in spring include fruit trees like apple, cherry, pear and plum, native flowers such as primrose, bluebell and heather, and garden plants including aubretia, forget-me-not, flowering currant, grape hyacinth, lungwort and rosemary. For a full list of nectar plants for butterflies visit https://butterfly-conservation.org/

Flowering currant (left) with bumble bee in search of nectar.

Lungwort (right)

We love watching red kites overhead, a common sight now in Hertfordshire. These large birds of prey have spread out from the Chilterns, where they were reintroduced in the 1990s. Once widespread in Britain, they were regarded as vermin and nearly became extinct, with just a few pairs surviving in Wales.

Seen in flight they have distinctive white wing markings and a forked tail.

And finally….

You can use comfrey (left) to make plant food. Comfrey sends down very deep roots, which bring up the three nutrients essential for plant growth (nitrogen, phosphorus and potassium – N,P,K) as well as trace minerals. Cut some comfrey leaves (wear gloves to protect your hands) and crush into a bucket, put a brick or similar on top and leave for four to six weeks. Pour off the liquid and dilute I part with 15 parts of water. Some people add water to the decaying leaves but this creates a terrible smell.

Go online for more information. You can use nettle leaves in the same way but the feed is high in iron and not suitable for tomatoes.