## Get your garden buzzing



A beginners' guide to gardening for pollinators





Protecting Wildlife for the Future

# Gardening for pollinators

Whether it's the excitement of seeing the first bulbs push through in the spring, or the mass of colourful blooms packing borders at the height of summertime, our outdoor spaces can be instantly uplifting with their abundance of beauty, scent and wildlife.

With 24 million gardens and allotments up and down the country, how we tend to them can have wide reaching effects, as they can play a vital role in reconnecting fragmented habitats and supporting wildlife.

This guide focuses on pollinators, offering practical tips and advice, from planting hanging baskets to managing a large garden, and explains how we can provide food and homes for these enigmatic creatures that share our garden space.

# Together, we can get our gardens **buzzing!**

The UK's residential gardens cover an area larger than all our National Nature Reserves combined A window ledge plant pot can provide pollen and nectar for insects

#### Our wild pollinators

Sadly, our wild pollinators are in trouble due to the loss of flower-rich habitat and breeding sites. More than half of UK bee, butterfly and moth species have declined in the past 50 years and 30 species of bee face extinction.

verfly © Bob Coy

Although almost a third of the UK's land lies in protected areas, much of our countryside has been altered by our efforts to increase productivity and 'tidy up' the landscape. Wildflower meadows, native woodland, hedgerows, ponds and ditches have been lost, and brambles, nettles, native 'weeds', deadwood and scrub have been cleared.

This, combined with expanding urbanisation and transport networks and increased pesticides use, means that not only is much of our remaining 'natural' habitat fragmented or degraded, our countryside is becoming increasingly hostile to wildlife, and our pollinators now have fewer resources available to them than ever before.

### **Importance of pollinators**

There are over 5,000 insects in the UK that play an essential role in pollinating our garden flowers, trees, shrubs and crops. Without them, most plants simply would not be able to produce seeds.

High numbers of pollinators have been linked to increases in the yield and quality of crops, so by providing habitat and encouraging more pollinators into your garden, not only will you help to reverse their decline, it could also result in more flowers and bumper harvests for you!

#### Bumblebees, solitary bees and honeybees

These garden favourites are first-rate pollinators, as they are the most effective insects at moving pollen from plant to plant. Bumblebees (and some species of solitary bee) are masters of 'buzz pollination', or 'sonication', meaning they contract their flight muscles to produce strong vibrations. Once these are directed onto a flower's anther, it results in an explosion of pollen grains. Tomatoes, blueberries, potatoes and aubergines all need this type of pollination, and the fruits of other plants are thought to set much better when visited by insects that specialise in this technique. Different species of bee have tongues of varying length, which means they are able to pollinate a wide range of flowers from deep-throated foxgloves to dainty forget-me-nots.

ne Buff-tailed bumblebee © Sru Brown



#### **Flies and hoverflies**

Did you know that flies and hoverflies are yearround pollinators? These under-appreciated insects are one of the most abundant of our wild pollinator groups, and they are especially useful pollinators when other insects aren't flying. Known as the workhorses of orchards, hoverflies pollinate a variety of fruit crops including apples and pears, as well as a multitude of flowering plants and other trees. With a voracious appetite, the larva of some species of hoverfly can control 70–100% of greenfly on a plant or bush, so they are great natural pest predators that pollinate your plants later in life.



#### Wasps

Wasps aren't only important pollinators, they are highly effective predators. They eat flies, aphids, caterpillars and other invertebrates, so alongside hoverflies they are great for controlling garden pests. Wasps transfer pollen as they visit flowers to drink nectar, and can be seen diligently pollinating crops such as raspberries on a summer's day. They are also instrumental in the transfer of yeasts and other microorganisms between grapes and other fruits, which add flavour to many of the wines that we drink.

#### **Butterflies and moths**

Butterflies and moths keep plant populations diverse and abundant by visiting flowering plants not commonly visited by other insects. As neither of these insects return to a nest, they can travel more widely and carry pollen greater distances, helping to reduce inbreeding in plants. Moths then take on the night shift to provide a 24-hour pollinator service for our crops and wildflowers.





#### **Beetles**

Over 300 species of beetle, including oil, longhorn, and swollen-thighed beetles, are known to regularly visit plants for pollen, and many do a great job of pollinating them.

As well as pollination, these species and their young – in the form of caterpillars and larval grubs – form the basis of a healthy functioning ecosystem. Without them, many other species, such as the birds and bats that rely on them for food, would be at risk too. If pollinators are welcomed, lots of other wildlife will follow!

### Key features of a pollinator haven

Whatever the size of your outdoor space, there's always room for pollinators. Their key requirements are food, water, shelter and somewhere to breed, which is essential for raising the next generation.

### Getting started

- Consider caterpillar and larval food plants alongside nectar and pollen-rich favourites.
- Soor burnet moth caterpillar @ Kartina Hatimon Make room for wilder. undisturbed areas to provide a year-round sanctuary for the different life cycles of many of our insects.
- Where possible opt for native plant species, as these best support pollinators. Use other garden plants to extend the season and provide variety.
- Structural diversity is key, so make use of walls and buildings, and provide hedges and trees where possible.
- Opt for UK-grown seed and plants. This not only reduces the risk of the spread of disease and pathogens, it also means they are more likely to survive, as they are adapted to our climate.

# Beds and borders

When planning a border for pollinators, aim to plant in drifts of the same species to reduce valuable forage time otherwise wasted by insects flying between favourite plants.

#### Mix it up

A combination of cottage garden perennials and annuals interspersed with flowering shrubs, climbers and trees is ideal. Choose varieties that extend the flowering season and plant an assortment of flower shapes and colours. Don't forget to include night-scented plants!

#### Maximise space

Simply scaling features down in the smaller garden can help enormously – even a square metre of flowering border can support a vast number of pollinators. Bird'sfoot trefoil can attract over 1,400 different insect species alone, so selecting plants like these for smaller spaces can instantly make a huge difference.

#### A planting combination

Nectar-filled spires of viper's-bugloss work well alongside oxeye daisy, meadow crane's-bill, salvias, cerinthe, borage, pot marigold and catmint, and use Mexican fleabane to soften the edges. Include later flowering sedums, verbena bonariensis, devil's-bit scabious and cosmos. Bladder campion is great for moths as they are attracted to its clove-like scent, and they then lay their eggs on the plant.

Don't forget to deadhead flowers to prolong their bloom time!

isy@Gennade

# Flowering trees, climbers, hedges and shrubs

Alongside favourites such as hawthorn and goat willow, single-flowered varieties are best when choosing ornamental trees and shrubs.

#### Mix it up

Aim to incorporate a combination of species that collectively provide pollen and nectar throughout the year. To extend the spring and summer seasons, winter flowering climbers such clematis and honeysuckle can help to bridge the nectar gap for any pollinators waking during milder winter months.

#### Maximise space

Providing structural diversity with trees, shrubs and climbers not only maximises garden space, it also allows for microhabitats at different heights to suit different insects. More can be gained by underplanting the base of hedges to provide forage and larval food plants, as well as creating an undisturbed oasis for bumblebees to nest and other pollinators to shelter.

#### A planting combination

Many insects lay their eggs on native trees, so why not create a hedgerow of hawthorn, blackthorn, crab apple, dog rose, field maple, holly and guelder rose, mixed with ornamental shrubs such as berberis, flowering currant, viburnum and mahonia to extend the flowering season? Maximise this space by underplanting with greater stitchwort, garlic mustard, cuckoo flower, common dog's violet, primrose, bluebell, foxglove and red campion. Ornamental trees such as *Salix caprea* 'Kilmarnock' or fruit trees on dwarf stock are great for the smaller garden, whilst shrubs such as hebe, dwarf lilac and skimmia can be grown in containers. Climbing hydrangea, wisteria, pyracantha and contoneaster looked great trained up a wall or pergola.

# Vegetables and fruit beds

Bees are the predominant pollinators of the vegetable garden, but hoverflies and wasps also play their part when it comes to a bumper harvest.

#### Mix it up

Attract long-tongued bumblebees by planting beans, peas and globe artichokes, and leave the greenhouse door open during the day to allow these highly-efficient pollinators to visit tomatoes and cucumbers. Encourage hoverflies by growing umbellifer-shaped flowers such as fennel, or allow the odd carrot or parsnip to flower.

By planting summer and autumn fruiting raspberries, you will enjoy an extended supply of berries, whilst bumblebees, hoverflies and wasps will enjoy a longer flowering season of a favourite nectar plant. Currants, gooseberries and blueberries are also much-loved by bumblebees.

#### **Maximise space**

Herbs are ideal as they support a wide range of pollinators, and are perfectly suited to growing in pots. Comfrey is a multi-use herb that's a fantastic nectar source for insects whilst being equally useful to the gardener because it can be made into a highpotash feed for crops and flowers.

#### Natural pest control

Planting French marigolds with tomatoes and between salad crops will deter greenfly and encourage beneficial hoverflies, whilst nasturtiums can lure egg-laying cabbage white butterflies away from brassicas. You can also transfer the caterpillars on to nasturtiums from cabbages and kale.

# Hanging baskets and containers

Hanging baskets, window boxes and containers can provide year-round colour and forage.

To get the most out of your planters, add violas to winter/spring baskets and containers, under planted with crocus, grape hyacinth and native daffodils. Remove and store the bulbs once flowering is over, and re-use the violas to continue with a summer/autumn flowering display.

Plants such as lobelia, single miniature dahlia,

bacopa, marigold and nasturtium can be grown from seed, and can be added along with Mexican fleabane, which will attract smaller hoverflies in their droves. Kept well fed with a comfrey or seaweed feed, this display should last well into the autumn.

Leafcutter bee on Mexican Revenues

Plants can be overwintered in a cold frame or greenhouse, or in milder areas, somewhere sheltered outdoors. You are now ready to refresh your basket or container and plant up with your winter/spring bulbs stored and saved from last year.



### Our favourite plants for baskets and containers:

- Bird's-foot trefoil
- Trailing lobelia
- Bacopa (single varieties e.g. *Chaenostoma cordatum* 'Snowflake')
- Nasturtium (single varieties e.g. *Tropaeolum majus*)
- Marigold (single varieties e.g. *Calendula officinalis*, which is easy to grow from seed)
- Miniature dahlias (single varieties e.g. Mignon series)
- Sweet William
- Poached egg plant
- Fuchsia (single varieties)
- Meadow or wood crane's-bill (or other hardy geraniums)
- Dwarf lavender
- Echium blue bedder
- Salvias (e.g. Salvia nemorosa 'Caradonna')
- Dwarf scabious columbardia
- Viper's bugloss (bees love this one! Can grow quite tall 75cm)
- Wallflower (especially Erysimum 'Bowles's Mauve')
- Dwarf catmints
- Mexican fleabane (Erigeron karvinskianus)
- Sedums (e.g. Hylotelephium spectabile 'Ice plant')
- Aubretia (an early spring plant)
- Violas
- Larkspur
- Native bulbs (e.g. bluebell, daffodil and snake's-head fritillary)

### **Spring garden: March – May**

Crab apple

#### What's happening in spring?

12

As the weather becomes milder, wasp and bumblebee queens, beetles and butterflies are emerging from hibernation, and a new generation of solitary bee surface from their nests. They will be searching urgently for two things: a reliable food source and a suitable nest site to raise the next generation.

Goat willow Allium Stitchwort White Cowslip dead-nettle Flowering currant Ponds White clover provide drinking water. See page 20. Dandelion Lawn daisy 2 Primrose Cow parsley Lungwort Cuckoo flower



### Summer garden: June – August

#### What's happening in summer?

Pollinators are highly active and spend much of their time foraging for nectar and pollen throughout the summer. During this time, many pollinators will also be breeding and it's vital they have a safe place to raise their young.

Foxglove

Plant drifts of plants in borders. See page 7.

Sunflower

Meadow crane's-bill

Pot marigold

Cock's-foot grass

> Meadows and flowering lawns at their best. See page 24.

Bird's-foot trefoil

Water lilv



# Autumn garden: September – November

#### What's happening in autumn?

Echinacea

Bumblebee, solitary bee, beetle, moth, hoverfly, fly and wasp species are all preparing to hibernate, whilst continuing to seek pollen and nectar to survive the winter. As autumn progresses, the abundance of flowers begins to decrease, so to ensure pollinators can continue feeding autumn-flowering plants are a must.

Teasel

Helenium

Sedum

Buddleia

Cosmos

Single dahlia

Leave seed heads for overwintering caterpillars. See page 20. Creat a leaf retreat. See page 30.

Verbena bonariensis

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# Winter garden: December – February

#### What's happening in winter?

Many species are now hibernating. Whilst some pollinators, such as queen bumblebees, will hibernate in their adult form, many others overwinter as eggs, or chrysalises, or larvae. They may not be visible during this time, as they are tucked away in a variety of places including hollow plant stems, leaf litter, decaying wood, hedgerows and trees.

Allow natural
 die-back.
 See page 20.

Hellebore

man

Winter aconite

The second

Mahonia

Snowdrop

Early bulbs revive insects on sunny days.

Winter-flowering heather

Holly

mud palace. See page 31.

Build a

Insects overwintering in compost heaps, hedgerows, seed heads and long grass. See page 20.

Winter-flowering clematis

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### **Creating wild spaces**

Although we see many of our pollinators during the summer months, it's important to remember that they need our support throughout the year to ensure their survival.

#### Nesting

Let areas of longer grass grow, welcome native weeds, and leave log stacks and piles of dead leaves in wilder areas. Tussocky grass is perfect for nesting common carder bumblebees, and grasses such as cock's-foot is the caterpillar food plant of 34 different species of moth and butterfly.

#### Hibernation

Our pollinators need undisturbed space to overwinter or hibernate. From autumn onwards, many seek out tall grass or woody stems, leaf litter, north facing banks, hedgerows, trees and even the soil surface to keep safely tucked away from predators and the worst of the weather. Allowing plants and vegetation to die back naturally and over winter undisturbed helps to ensure that any insects either in larval, pupae or adult form has the best chance of survival.

#### Drinking

Ponds and water features help to provide pollinators with a welcome place to drink and rest on a hot summer's day. Of the 280 or so different species of hoverfly, 40 species require stagnant water to rear their young. If space is tight, why not create your own hoverfly lagoon? See page 29.



# Top things to remember!

- Go native: choose native trees, shrubs, wildflowers and grasses where possible.
- Mow less: mowing just once a month will give insects and wildflowers a chance to thrive.
- Be natural: make your garden pestcide free as they are harmful to all pollinators.
- Encourage wildness: provide a variety of wild areas for pollinators to nest, breed and overwinter safely.
- Weeds are wonderful: bear in mind that many pollinators rely on them to lay their eggs and feed their young.
- Be peat-free: always use peatfree compost as peat-based alternatives are devastating for the environment.
- Don't rush: resist tidying up until temperatures are above
   10 °c – you don't want to throw away hibernating pollinators.
- Enjoy: Sit back, relax and listen to the hum!

it<sup>ge white butterfly pupa © Vaughn Nathlena</sup>

### The wonderful world of weeds – in the eyes of a bee or butterfly!

Often banished from our countryside, parklands and gardens because of their vigorous ability to set seed or spread, native 'weed' species are by far the most important plants for many of our wild pollinators.

#### **Nettle nurseries**

The much-maligned nettle supports over 40 kinds of insects, including many of our moth species, and it's the main caterpillar food plant of four of our best loved butterflies: small tortoiseshell, peacock, red admiral and comma. Nettles also attract beneficial insect predators such as hoverflies and ladybirds, which in turn provide a natural pest control service against aphids and other insects. See page 28 for more on growing nettles.

#### **Dazzling dandelions**

Food fit for a queen! Dandelions are important for hungry pollinators searching for food in early spring, especially queen bumblebees raising their young. Packed full of protein-rich pollen and nectar, all our pollinators rely on dandelions, making them one of the staple 'go to' food plants throughout the year.

#### **Delicious thistles**

Loved by bees, nectar-rich thistle flowers are a magnet for pollinators. Native thistles are also important larval food plants for numerous species of moth, hoverfly and the painted lady butterfly. Although the flower head supports the greatest diversity of insects, the stem is a key food plant and an important overwintering site for many insects. Spear thistle and creeping thistle can be invasive, but other native species such as melancholy thistle spread basally rather than by seed, and are suitable for a wilder and damper area of the garden. Non-invasive garden varieties include plume thistles, globe thistle, globe artichokes, sea holly and giant cotton thistle.

#### Irresistible ivy

An invaluable late nectar source, the small, yellow flower heads of ivy attract a huge range of insects when few other pollinating flowers are available. Wasps, hoverflies, bumblebees, small tortoiseshell and peacock butterflies all make use of ivy's late-season bounty. The nectar also provides the reserves needed by the adult red admiral butterfly and the buttoned snout and red-green carpet moths to hibernate over winter. A dense evergreen ivy such as *Hedera helix* provides a continuous refuge for insects, birds and other small animals in which to hide, roost, nest and hibernate. Don't cut ivy back until late spring.

#### **Outstanding bramble**

Bramble wins the prize for being the most important source of pollen, nectar and ripe-fruit sugars for more species of insect than any other British plant. A habitat in its own right, bramble provides crucial mid-to-late season nectar for bees, hoverflies, wasps and many butterflies, such as the brown hairstreak, comma, gatekeeper, grayling, orange-tip and ringlet. Caterpillars, including the fox moth, rely on the leaves for food, whilst wasps and flies feast on the ripe berries. Allow bramble to scramble in your garden if you can. Keep it in check by cutting it hard back in late winter, once the weather begins to warm up. Check for nesting birds and other wildlife first.

# Flowering lawns and meadows

Many pollinators have adapted their life cycles to the flowering seasons of the wild plants within their local area. By choosing plant species native to Cumbria when creating a meadow, not only are you benefitting pollinators, you're also boosting populations of plants that are otherwise declining in our countryside.

#### How to create a flower-rich lawn or meadow

- 1. Closely cut and remove grass clippings, then scarify or rake to expose 50% soil.
- 2. Select seed choice **A** or **B** (see opposite), depending on whether you want a lawn or meadow, then evenly scatter seed at a rate of 4 grams per metre square. Tread the seeds firmly into the ground. Water during dry spells to prevent it drying out.
- 3. Allow the seeded area to establish, then begin the cycle of mowing.
- 4. Lawns can be sown from March–May or September, whilst meadows are best sown in September.

#### Managing your lawn

Mow monthly to maintain a height between 10–15cm, or set the cutter bar above the height of flower heads. Species such as white clover will thrive in these conditions. Always remove grass clippings.

#### Managing your meadow

Leave the meadow area uncut between mid-April and mid-July. Mow the site once the yellowrattle has shed its seed (from mid-July). Leave the cuttings for 1–3 days during dry weather and turn them to scatter seeds. Collect and remove the dried grass (hay). Once the meadow is cut and cleared, keep the grass short (between 10–15cm), removing clippings.

#### A. Short flowering lawn seed mix

50% UK-grown grass seed such as common bent or common ryegrass

10% white clover 10% lawn daisy 5% bird's-eye speedwell 5% selfheal 5% bird's-foot trefoil 5% dandelion 5% black medick 5% lesser trefoil

#### Did you know?

White clover creates nitrogen, which enriches the soil and helps other plants to grow stronger. It's also great for tolerating drought.

### B. Tall wildflower meadow seed mix

40% yellow-rattle 10% oxeye daisy 5% sweet vernal grass (grass) 5% black knapweed 5% meadow crane's-bill 5% red clover 5% meadow vetchling 5% meadow buttercup 5% bird's-foot trefoil 5% selfheal 5% rough or autumn hawkbit 5% great burnet

# Try rotation cutting

For tall grass growing in wilder spaces, cut half the area one year, half the next. This will allow for undisturbed overwintering habitat, whilst keeping coarse grasses in check.

#### **Room for a spring meadow?**

White clover @ Philip Pr

Consider leaving a grassy area unmown between January and July. Here you can plant native primrose, cowslip, lady's smock, snake's-head fritillary, bluebell, daffodils, violets and dandelion, plus non-native crocus and snowdrop. Resume normal cutting from July onwards, removing grass clippings.

# Seed propagation

Planting wildflower seed that you've collected is the most sustainable way of gardening!

#### **Collecting seed**

What you'll need:

- Paper bags to put the seed in.
- A pencil to record the species, location and date.

Before setting out, first remember to request the landowner's permission. It's also a good idea to collate images of seed heads, or look at a reference book, to help identify what you want to collect.

When collecting the seed, make sure you take a maximum of a third of the seed available, to ensure the species continues to thrive where you found it. You can tell if seed is ready to collect as it will fall away from the plant easily, and is likely to be a brown or red colour. Once collected, you will need to take seeds home to dry.

#### **Drying and storing**

Empty the seed into separate dishes or trays (Tupperware works fine too!). Label it, and keep the tray in a cool, airy place out of direct sunlight. After two weeks your seed will have dried enough to plant or store.

If storing, place the seed in the refrigerator until you are ready to plant. Low temperature, humidity and light level protect seed longevity. If it's not practical to store seed in your refrigerator, store it in any place that is cool, dark and dry, protecting it from insects.

VildRower seeds © Marcus Wehrle

#### Sowing and growing

Fill a tray with peat-free potting compost, firming it lightly with the back of your hand. Sprinkle a single species of seed onto the surface of the compost, then add a light covering of compost. You don't want to bury your seeds as this will prevent them from germinating. Add a label, noting the species and sowing date. Place the tray outside or in a greenhouse and lightly water.

Once your seedlings have grown their true leaves (usually the second set of leaves, not the first seed leaves produced just after germination), you will need to pot them on into individual pots, so they have more room to grow. Prick out the seedlings by loosening the compost around the roots and lift the seedlings individually by holding one of the true leaves between your finger and thumb. Try to keep as much compost around the roots as possible, and use a dibber to make a hole for the seedling in its new pot of compost.

Once your plants have grown enough that you can see the roots emerging from the bottom of the pots, they are ready to plant in your garden or meadow.

Sowing in September will give you the earliest display of wildflowers. Yellowrattle, eyebright, wood and meadow crane's-bill, cowslip and vetches require prolonged periods of cold to germinate, so autumn sowing is better for these species. Other wildflowers such as oxeye daisy, clovers and knapweed can also be sown from March – May, but flowering may not occur until the following year.

# How to create a caterpillar crèche

Allowing nettles to grow in your garden will provide an essential source of food for a range of caterpillars. Suitable for gardens of all sizes, why not create a caterpillar crèche and help ensure the survival of some of our bestloved butterflies?

Fill a medium to large container with garden soil.

2. Sow nettle seed Urtical diocia thinly into the container in autumn, covering the seed with a thin (2mm) layer of soil.

**3.** Place in a sunny spot outdoors and water during dry periods to keep the soil moist.

4. The nettles should grow quickly and there should be a flush of green stems and leaves ready for butterflies to lay their eggs in spring.

5. The nettles can be cut down around late June (check for caterpillars first). New growth will attract a second generation of small tortoiseshell butterflies.

6. Later in the year (August onwards), the nettles can be harvested to make nettle tea – a fertiliser that's high in nitrogen and very nutritious for your soil!

#### Top tip

Growing nettles in a pot helps to contain them within a set area.

Plustration © Dawn Coope

### How to create a hoverfly lagoon

Whilst many of our hoverflies lay their eggs near aphid colonies, which helps with aphid pest control, other hoverflies need stagnant water to breed. Homemade lagoons are perfect if you have a small space and will improve diversity in your garden.

Fill an old (watertight) bucket with a mix of cut grass, leaves and leaf litter.

2. Add rainwater and fill to the top, so that it completely covers the contents. Top up the bucket with rainwater every now and again, and add more grass and leaves if needed.

> Place the lagoon where it will be undisturbed, such as behind a shed.

Illustration © Dawn Cool

#### Top tip

5

Keep an eye out for emerging young hoverflies in spring.

 Place sticks upright around the edge of the bucket, so that young hoverflies can climb out when ready. Over time the leaves and grass will break down creating the perfect stagnant conditions required by many hoverflies to lay their eggs in.

### How to create a leaf retreat

Undisturbed leaf litter is an essential overwintering habitat for many types of pollinating insects. Suitable for gardens of all sizes, why not create a leaf retreat, the perfect winter residence for our pollinator friends?

> Using 90cm tall chicken wire, or other stiff garden netting, shape it to create an open-ended cylinder.

> > 2. Find a shady, sheltered, undisturbed spot to place your structure in.

Join the wire together by weaving a cane through the wire mesh and inserting firmly in the ground. Thread another 2–3 canes through the wire and insert into the ground to make your structure sturdy.

Fill the cylinder structure with leaves and twigs – ask a neighbour if you don't have your own. Place a stone or log on top of the leaves to stop them blowing away.

**Top tip** 

<sup>(Stiation</sup> © Dawn Cooper

Look out for beetle activity in the spring.

### How to create a mud palace

Many gardens lack the one necessity many solitary bees need to build their homes – mud! Some dig their nests in it, whilst others use mud to build the walls and seal the doors of their breeding cells, in which their young are reared.

Fill an untreated 40cm long oblong terracotta/pottery planter with clay or loam from your garden, mixed with fine sand. If you don't have this you can use lean pottery clay from a specialist retailer, and add very fine sand, e.g. paving sand, to make it a dry, compact consistency. Once dried, it should be soft enough to scrape particles off with your finger. **3.** Use a 6–8mm diameter stick to push holes into the mud to a depth of 1–2cm. These will allow bees access into the mud, to then create their own nesting cells.

4. Once the mud is fully hardened, place the planter on its side horizontally, and put it in a sheltered place, away from the weather. Position the planter so the mud wall is vertical.

2. Compact the mud in the planter using a block of wood or log, ensuring that you remove any air pockets.



Top tip

A ledge on a south facing side of a building is an ideal spot.

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### **Best plants for pollinators**

Planting pollen and nectar-rich plants is a great way to support our pollinating insects, but providing them with food plants for their young and a home to overwinter in will also make a real difference. This will help to boost both the abundance and variety of different wild pollinator species across Cumbria, and help ensure the survival of future generations!



Dandelion			
Junacion	Short flowering lawn, wild area, hedgerow.	₩ÅÅ ₩¥	Larval food plant for 15 species of moth/butterfly. Year-round pollen and nectar, especially important in spring.
Garlic mustard	Wild area, hedgerow.	₩ ₩	Larval food plant for orange- tip and green-veined white butterflies.
Goat willow	Suitable for damp areas. Or plant Salix caprea 'Kilmarnock' an ornamental tree for the smaller garden.	****	Larval food plant for 37 moth/ butterfly species, including the puss moth. Early pollen/ nectar source, especially for queen bumblebees. <b>Important</b> <b>overwintering habitat</b> .
Hawthorn	Hedgerow, wild area.	₩ A A ₩ ₩ Ø	Supports over 300 insects and is the larval food plant for 116 moth species including lackey, vapourer, lappet and small eggar. <b>Important</b> overwintering habitat.
Summer			
Angelica	Wild area, wetland, damp areas, woodland.	<b>▲ ☞</b> ▲ ₩ ₩ 0	Particularly good for hoverflies species that lay their eggs so larval young can feed on aphids found on this plant. <b>Important</b> <b>overwintering habitat</b> .
Bird's-foot trefoil	Short flowering		
	lawn, meadow, planter, hanging basket.	₩Û	The larval food plant for the common blue butterfly and burnet moth, as well as an important nectar source for a wide variety of pollinators, especially long-tongued species of moth, butterfly and bumblebee e.g. common carder bee.
Bramble	Hedgerow, wild area.	₩ ₩ ₩ ₩	The larval food plant for the common blue butterfly and burnet moth, as well as an important nectar source for a wide variety of pollinators, especially long-tongued species of moth, butterfly and bumblebee e.g. common carder bee. Over 240 insect species feed on the leaves alone (32 rely exclusively on bramble, including the peach blossom moth). The ripe fruit also attracts butterflies. Important overwintering habitat.
Bramble Black knapweed	Hedgerow, wild area. Meadow, wild area, flower bed, hedgerow, pond.		The larval food plant for the common blue butterfly and burnet moth, as well as an important nectar source for a wide variety of pollinators, especially long-tongued species of moth, butterfly and bumblebee e.g. common carder bee. Over 240 insect species feed on the leaves alone (32 rely exclusively on bramble, including the peach blossom moth). The ripe fruit also attracts butterflies. <b>Important overwintering habitat.</b> Larval food plant for 16 moth species. One of our most nectarrich wildflowers.

Cock's-foot grass	Meadow, wild area.	M M 244	Larval food plant for 34 species of moth/butterfly, including the ringlet and meadow brown butterfly. <b>Important</b> <b>overwintering habitat.</b>
Dock	Wild area.	<b>•</b> ***	Larval food plant of many species of moth, and the small copper butterfly. Supports 21 other species of insect.
Dog rose	Hedgerows, wild area.	₩ A A ₩ ₩ Ö	Larval food plant for 24 species of moth/butterfly, including the grizzled skipper butterfly. Host plant for the rose gall wasp, which create beautiful galls known as Robin's pincushion, that do no harm to the rose.
Honeysuckle	Trellises, walls, hedgerows.	****	Larval food plant of 24 species of moth/butterfly including the golden Y moth. Attracts moths at night. <b>Important overwintering</b> habitat.
Hogweed	Wild area.	<b>₼ ₩ ₩ 0</b>	Larval food plant for 16 species of moth/butterfly including the brindled ochre moth. Nectar source for hoverflies, solitary bees, flies, beetles. <b>Important</b> overwintering habitat.
Nettle Urtica dioica	Container, hanging basket, wild area, hedgerow.	A 16 16	Main larval food plant for small tortoiseshell, peacock, red admiral and comma butterflies. Supports over 40 insects.
Red campion	Wild area, hedgerow.	¥A ₩¥0	Larval food plant for 7 species of moth/butterfly. Long flowering native that supports a wide range of pollinators.
Thistle (spear, creeping, marsh, melancholy)	Wild area, hedgerow.	₩Û	Staple nectar source for a huge variety of insects and larval foodplant for over 10 species, including the painted lady butterfly and <i>Cheilosia</i> species of hoverfly. <b>Important</b> <b>overwintering habitat</b> .
Autumn			
Ivy Hedera helix	Wild area. -┿┿-	***	Larval food plant of 9 species of moth/butterfly including the holly blue butterfly which overwinters in egg form. Late nectar source. <b>Important</b> overwintering habitat.

Pollen and nectar-rich plants		
Plant species	Where to sow/plant	Supports
Spring		
Alliums (including chives)	Flower bed, border, herb bed	¥~ <b>A ₩</b> ₩
Aubretia	Flower bed, container, hanging basket.	***
Crocus	Flower bed, container, hanging basket, short flowering lawn.	₩.₩
Deadnettle (white, red)	Wild areas.	***
Primrose	Flower bed, container, hanging basket, short flowering lawn, wild area, hedgerow.	>¥~ A ₩ W
Cherry	Within a bed or border – or as a feature tree.	****
Lungwort	Flower bed, container. 	¥A₩₩ÌA
Ribes (flowering currant)	Flower bed, container.	¥A₩₩ÛA
Rosemary	Flower bed, container, hanging basket, herb bed, gravel bed. 	¥A₩₩ÌÀ
Erysimum Bowles's Mauve (wallflower)	Flower bed, container.	¥A₩₩ÛA
Lady's smock	Spring flowering lawn, wild area.	₩¥* <b>&amp;</b> ₩

Plant species	Where to sow/plant	Supports
Summer		
Blackcurrant	Hedgerow, vegetable beds.	¥A★¥Û
Borage	Flower bed, container, hanging basket, herb bed, gravel bed.	₩.₩.
Buttercup	Flower bed, spring and summer meadows, wild area, pond, hedgerow.	<b>₩</b> ₩₿
Catmint Nepeta	Flower bed, gravel bed. 	*****
Cosmos	Flower bed, container.	⋙Ѧ <b>ѧ₩</b> ₩₿
Cerinthe (honeywort)	Flower bed, container.	¥A <b>**</b> *
Clover (red, white)	Summer meadow, flowering lawns, wild areas. 	¥*A <b>₩₩</b> 0
Foxglove	Flower bed, wild area, hedgerow.	₩.
Lavender	Flower bed, container, hanging basket, herb bed, gravel bed.	***
Wild comfrey	Herb bed, hedgerow, flower bed, wild area.	**

	Fennel	Herb bed, gravel bed, wild area.	ᆇ杰杰᠉᠉
	Black knapweed	Flower bed, summer meadows, wild area, pond, hedgerow.	¥A <b>₩</b> ₩İ
	Oxeye daisy	Flower bed, container, hanging basket, summer meadow, wild area, hedgerow.	¥ ∧ ¥0
	Raspberry	Hedgerow, wild area, vegetable and fruit beds, amongst shrubs.	¥A <b>A %</b> % 0
	Salvia (and sage)	Flower bed, container, hanging basket, herb bed, gravel bed.	¥ A A ¥ ¥ V
	Sunflower	Flower bed, container, hanging basket, herb bed, gravel bed.	*****
	Majoram	Flower bed, container, hanging basket, herb bed, gravel bed.	¥ A A ¥ ¥ I
	Nasturtium	Flower bed, container, hanging basket, herb bed, gravel bed.	** +* 🦋
	Pot marigold	Flower bed, container, hanging basket, herb bed, gravel bed.	¥ A A ¥ ¥ I
	Рорру	Flower bed, container, hanging basket, herb bed, gravel bed.	≫A <b>A₩</b> ₩Ů

Phacelia	Vegetable beds. Wild area, herb bed.	À <b>₩₩₩₩</b> ₩ <b>\$</b>
Runner bean	Vegetable beds.	A & W >= 0
Geranium (crane's-bill species)	Flower bed, container, hanging basket, wild area.	<b>▲₩₩₩₩</b>
Heather	Flower bed, container, wild area.	Ă <b>₩₩₩¥</b> ₿
Thyme	Flower bed, container, hanging basket, herb bed, gravel bed.	À <b>₩₩₩₩</b> ₩

Viper's bugloss

**Plant species** 

Flower bed, container, hanging basket, gravel bed.

AA₩₩₩₩

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Woundwort (marsh or hedge)

Wild area, hedgerow.

Where to sow/plant

Supports

# Autumn/winter Devil's-bit scabious Flower bed, wild area. Image: Single dahlia Flower bed, container, hanging basket. Image: Single dahlia Flower bed, container, hanging basket.

#### Teasel

Flower bed, wild area, hedgerow.

Flower bed, container.

Flower bed, container, hanging

basket, herb bed, gravel bed,



Michaelmas daisy (Aster)

Verbena bonariensis

Fuchsia

Buddleia

Ice plant

spectabile

uddlaia

Fatsia japonica

Flower bed, container, hanging basket, wild area, hedgerow.

wild area.



Flower bed, wild area, amongst shrubs.

**\***-

Amongst shrubs, hedgerow.



Flower bed, container, gravel bed.

Mahonia aquifolium

Hylotelephium/Sedum

Snowdrop

Winter aconite

Amongst shrubs, hedgerow.

Flower bed, container, hanging basket, short flowering lawn, hedgerow, wild area.

**★ ★ ★** 

Flower bed, wild area.



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This publication has been produced as part of Cumbria Wildlife Trust's 'Get Cumbria Buzzing!' project which aims to inspire everyone to do something positive for pollinators, whether it's planting wildflowers in your garden or window box, or helping to record the different pollinator species you see. Our ambition is to help reverse the decline of pollinators, and we need your help!

Working with local communities, volunteers and partners, we will create 115 hectares of flower-rich habitat, providing vital stepping stones for our pollinators to move freely across northwest Cumbria.

#### **Find out more**

www.cumbriawildlifetrust.org.uk/getcumbriabuzzing

#### **Contact us**

Email: mail@cumbriawildlifetrust.org.uk

Once you've got your garden buzzing, add your postcode to the map on our web page!

Registered Charity No. 218711

Developed by Cumbria Local Nature Partnership and delivered by Cumbria Wildlife Trust, Get Cumbria Buzzing is a partnership project that includes Allerdale Borough Council, Carlisle City Council, Workington Nature Partnership, Cumbria Biodiversity Data Centre, Florence Arts Centre, Buglife, Copeland Borough Council, National Trust, Butterfly Conservation, Highways England and Solway Coast AONB.

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