

A vibrant yellow background is framed by a decorative border of various butterflies and flowers. The butterflies include species like the Common Nymph, Peacock, and Green-veined White. The flowers are in shades of red, orange, purple, and blue. In the top right corner, there is a dark teal circular graphic containing text.

Top tips on  
how to make  
more space  
for wildlife

Let's create

# WILD SPACES

For butterflies, moths and nature.



Butterfly  
Conservation

## WILD SPACES

[BUTTERFLY-CONSERVATION.ORG/WILD-SPACES](http://BUTTERFLY-CONSERVATION.ORG/WILD-SPACES)



# WILD SPACES

**Butterflies and moths are in trouble and they need our help. Some have declined because we have lost many of our native forests and wildflower meadows. But we can help them by sharing our gardens and green spaces with them, providing the plants their caterpillars feed on and leaving quiet places where they can make the incredible transformation into adult insects.**



These are Wild Spaces: places where butterflies and moths can feed, breed and shelter. You can create a Wild Space almost anywhere to help make your areas rich in insects and the birds, bats and other animals that feed upon them. From window boxes and patio planters to gardens and parks, anywhere can be a Wild Space. Keep reading to find out how you can create and look after your very own wildlife haven.

## WHAT IS A WILD SPACE?

Wild Spaces provide the three main things that butterflies and moths need in order to complete their life cycles:

- **Feed:** nectar-rich plants for adult insects to drink from—nectar gives them energy to fly!
- **Breed:** the plants that caterpillars feed on. Some species are very fussy while other species have a wide range of plants. Without these though, they cannot reproduce.
- **Shelter:** when a caterpillar is ready to turn into an adult butterfly or moth, it will search out a safe spot to make its cocoon or chrysalis (also known as a pupa). This is usually in the soil or amongst fallen leaves and plant stems.

By providing all three of these, you'll have made a Wild Space where butterflies and moths can thrive.

## REGISTER YOUR WILD SPACE

Remember to register your new or existing Wild Space on the Butterfly Conservation website so you can contribute to our goal of creating a network of 100,000 new Wild Spaces for butterflies and moths across the UK!

[BUTTERFLY-CONSERVATION.ORG/WILD-SPACES](http://BUTTERFLY-CONSERVATION.ORG/WILD-SPACES)

## ADULT FEEDING

Most butterfly and moth species drink nectar from flowers. Nectar has sugar, giving insects the energy they need to fly. Most butterflies and moths don't collect and eat pollen the way that bees do, but many species have a longer proboscis (or tongue) and can reach into deeper flowers that bees often cannot access.

Our list of nectar-rich annual plants is below, and you'll find herbaceous perennials on the next page. We haven't included caterpillar foodplants, wildflowers or native trees here but check the lists in this guide which will show you which caterpillar foodplants also provide nectar. Remember to have plants flowering between March and October to feed insects through their main active periods. You can also leave fallen fruit like apples and rowan berries on the ground for insects to feed on their sugar in autumn.

### Annuals — easy to grow from seed

Plant	Flowering season
Cosmos	Mid-summer—autumn
Nicotiana	Mid-summer - autumn
Sunflower	Mid-summer—autumn
Ageratum	Late Summer
Zinnia	Late summer





## HERBACEOUS PERENNIALS

come back year after year but die back in winter

Plant	Flowering season
Aubrieta	Spring
Bugle (Ajuga)	Spring
Grape Hyacinth (Muscari)	Spring
Marjoram	Mid-summer
Verbena bonariensis	Mid-summer
Echinacea	Mid-late summer
Dahlia (open flowered)	Late summer
Hardy geraniums	Early/late summer
Helenium	Late summer
Hemp agrimony	Late summer
Iceplant (Sedum / Hylotelephium spectabile)	Late summer
Mint	Late summer
Rudbeckia	Late summer
Scabious —	Late summer
Knautia or Scabiosa	Late summer
Sea Holly (Eryngium)	Late summer

Verbena and Rudbeckia © Anthony McCloskey



We haven't included Buddleia in this list as single Buddleia plants can produce tens of thousands of seeds, with new plants being harmful to natural environments and buildings.



Small Tortoiseshell on Lavender © Matt Berry

## TREES AND SHRUBS

(non-native, for gardens and parks only)

Plant	Flowering season
Winter or Spring flowering heathers	Early spring
Lilac	Early summer
Lavender	Mid-late summer
Thyme	Mid-late summer
Hebe	Mid-late summer
Privet	Late summer
Jasmine	Summer
Clematis	Summer

# CATERPILLAR FOODPLANTS

## GARDEN PLANTS

There are 57 resident butterfly species in the UK (and two regular migrants) and over 2,500 moths species in the UK! Between them, their caterpillars (or larvae) eat a huge range of plants. Each species has a small number of plants that they prefer to eat - mostly native plants that they would encounter in nature. In some cases this close relationship with certain plants has allowed them to evolve to look just like the plants they feed upon, providing camouflage from predators. In other cases they have evolved to use toxins from plants (even cyanide!) to harm predators that try to eat them. Without these caterpillar foodplants, it is impossible for butterflies and moths to breed, even in a garden with nectar-rich plants like Lavender and Sedum.

You can grow a range of different garden plants to feed caterpillars, and by including some of the wildflowers and trees listed in this guide it will guarantee you a good start. Plants with (N) beside them also provide nectar, so you can provide for adults and caterpillars with a single plant.

Plant	Food for caterpillars of
Honesty (N)	<b>Butterflies:</b> Orange-tip. <b>Moths:</b> Garden Carpet
Sweet Rocket / Dame's Violet (N)	<b>Butterflies:</b> Large White, Small White and Orange-tip. <b>Moths:</b> Garden Carpet.
Perennial Wallflower (N)	<b>Butterflies:</b> Orange-tip, Green-veined White, Small White, Large White. <b>Moths:</b> Garden Carpet and Flame Carpet.
Comfrey	<b>Moths:</b> Burnished Brass and Garden Tiger.
Heathers (N)	<b>Moths:</b> True Lover's Knot and Ruby Tiger.
Fuchsia	<b>Moth:</b> Elephant Hawk-moth
Nasturtium (N)	<b>Butterflies:</b> Small White, Large White and Green-veined White. <b>Moths:</b> Garden Carpet moth.



Honesty © Anthony McCloskey



Mottled Umber © Iain H Leach

### Did you know?

Caterpillars that feed on cabbage and related plants like Honesty and Nasturtium will absorb oils that taste like mustard from their food. So any birds that try to eat them will get a nasty taste in their mouth and be less likely to try to eat other caterpillars!



Nasturtium © Anthony McCloskey





Speckled Wood on blackberries ©Ashleigh Whiffin

# TASTY 'WEEDS'!

Some plants often regarded as 'weeds' are fantastic for butterflies and moths. Making space for these in your garden or growing area is an easy way to help insects. Every garden needs a quiet corner where you allow 'weeds' like these to grow and go wild.

**Brambles** are super-plants for butterflies and moths. The flowers in early summer provide lots of nectar, while the fruit (blackberries) can provide even more sugar in late summer. Bramble leaves are eaten by over 60 species of moth!

**Dandelion** flowers provide a lot of nectar to butterflies in early spring, while caterpillars of Yellow Shell, Large Yellow Underwing, The Satellite and Ruby Tiger moths eat their leaves!

**Dock (Or Dockan)** is the plant often used to soothe nettle stings, but it's also food for the caterpillars of over 70 moth species!

**Goosegrass (Or Cleavers and 'Sticky Willy')** is a plant whose round seeds are covered in little burrs. If you let it grow in quiet corners of your garden it could feed caterpillars of four of the 'carpet' moths: Red Twin-spot, Silver-ground; Common and Water Carpets. These moths get their names from the intricate patterns on their wings and are no threat to actual carpets.

**Nettles** are eaten by caterpillars of Small Tortoiseshell, Peacock, Red Admiral and Comma butterflies. Moths love them too, with caterpillars of Mother of Pearl, Snout, Burnished Brass, Spectacle and Beautiful Golden Y all chomping on nettles! Over 30 species are known to feed on nettles.

**Willowherb** is sometimes called 'Fireweed' because it likes to grow in places where there has been disturbance. It's also the main foodplant for caterpillars of the stunning Elephant Hawk-moth. Elephant Hawk-moths get their name from the trunk-like appearance of their caterpillars which can be up to 10cm long! Caterpillars mostly feed on Fuchsia or Willowherb and will make cocoons among dry leaves in autumn.

# CATERPILLAR PLANTS

## WILDFLOWERS

Even though typical garden plants can provide a lot of nectar, growing native wildflowers, trees and shrubs is a better way to help most species to breed. You can use the wildflowers listed here in gardens, and some like Bird's-foot Trefoil even grow well in pots and planters.

## MEADOWS

We have lost 98% of the wildflower meadows in the countryside. So making a mini-meadow from your lawn, or sowing a new larger meadow in a park or public green-space can really help. Our website has more detailed instructions on how to create and maintain meadows, but here's a quick guide:

Start between autumn and early spring by cutting the grass back hard, then raking off all the grass to expose some soil.

Sow seeds or plant wildflower plug plants. Use native perennial plants, ideally from a local supplier who can advise you on the plants that grow best here. The meadow should have grass, as well as nectar-rich plants and caterpillar foodplants.

Allow the meadow to grow all summer, and only cut it back between mid-September and late October as caterpillars can still be feeding until then. Consider leaving some areas uncut, and whenever you do cut you should remove the cuttings to reduce soil fertility and encourage more wildflowers.

You'll find our list of wildflowers on the next page — you can grow these in a meadow, or just mix them among your flower beds and pots. All of these prefer sunny positions, except those listed as shade-tolerant, which all prefer a shadier site so will do well in and around trees if the soil is not too dry and compacted.

## LETTING THE GRASS GROW

Caterpillars of all of the brown-coloured butterflies need long grass to feed upon. The most widespread species in this group are Meadow Brown, Speckled Wood and Small Heath. Lots of moth caterpillars, including the Square-spot Rustic, simply need grass too. All you have to do is let the grass grow long through the spring and summer, then let it lie over autumn and winter as many caterpillars will be among the grass. If you need to cut it, try to leave it until early spring with the cutter blades high. You don't need to have a wildflower meadow to do this, but having more nectar-rich plants will help sustain the adult butterflies and moths.



Bird's-foot Trefoil is an important wildflower in meadows, but grows just as well in pots or flower borders.



## WILDFLOWERS

(N = Nectar; F = Caterpillar foodplant)

Bird's-foot Trefoil (N, F)

Cuckoo-flower (N, F)

Common Knapweed (N)

Common Sorrel (F)

Field Scabious (N)

Lady's Bedstraw (F)

Ox-eye Daisy (N)

Primrose & Cowslip (N, F)

Red-clover (N, F)

Self-heal (N)

Bush, Common and Tufted Vetches

Yarrow (N, F)

Food for caterpillars of:

Common Blue butterfly, Six-spot Burnet moth.

Orange-tip, Small White and Green-veined White butterflies.

Generalist moth species that feed on herbaceous plants.

Small Copper butterfly

Generalist moth species that feed on herbaceous plants.

Red Twin-spot Carpet; Common Carpet; Purple Bar; Barred Straw; Green Carpet; Flame Shoulder

Generalist moth species that feed on herbaceous plants.

Riband Wave; Silver-ground Carpet; Twin-spot Carpet; Grey Arches;

Narrow-bordered Five-spot Burnet; Latticed Heath; Common Heath

Generalist moth species that feed on herbaceous plants.

Shaded Broad-bar; Latticed Heath; Common Heath;

Silver-ground carpet; Yellow Shell; Wormwood Pug; Mottled Beauty; Ruby Tiger;

## SHADE-TOLERANT WILDFLOWERS

Bugle (N)

Dog-violet (N, F)

Red and White Campions (N)

Sweet Woodruff (N, F)

White Dead-nettle

Dark Green, Pearl-bordered and Small Pearl-bordered Fritillary

Rivulet; Campion moth;

Same as Lady's Bedstraw (above)

Burnished Brass; Common Swift; Green Carpet

## SHELTER

When a caterpillar has fed for long enough it will begin the next important stage of its life by pupating—the process of turning into a chrysalis (a pupa). For some species this involves going to the ground and making a shallow burrow under the soil or just on the surface of the ground. Other species will find leaves and join them together with silk to make a protective shelter, while some species will simply bind themselves to a hard surface like a plant stem.

Within the pupa, the adult butterfly or moth will be forming. This can take place at almost any time of year, depending on the species. So to help the widest range of species possible, here are our top tips:

- **Leave the leaves:** letting the leaves fall under trees will provide lots of spaces for caterpillars and pupae to shelter. They will also suppress the weeds in flower beds and will enrich the soil as they rot down slowly. If you do need to move leaves off a lawn, just scatter them over the flower beds or in quiet corners of the garden under trees and shrubs.
- **Allow plants to die back naturally in autumn:** some pupae will be on or inside the hard stems and seed heads of plants, so if you clear all the stems away you risk sending these immature insects into the compost bin or local authority waste collection. Leave them until the following spring, then cut the stems and put them in quiet corners of the garden.
- **Stagger the cutting of hedges:** hedges need to be cut occasionally to maintain their shape. To ensure you don't harm too many sheltering insects while doing this, the first step is to reduce the frequency of cutting. You could decide to divide your hedges up into section and cut them on a two-year rotation, with each section only being cut once every two years.
- **Don't dig it!** In the places near to trees and plants where you've seen caterpillars, you could stop digging the soil. This will stop annual weeds from coming up and provide a safe place for caterpillars in the soil.



© Anthony McCluskey



Letting the grass grow ©Ashleigh Whiffin



Common Knapweed ©Anthony McCluskey

Spot the Elephant Hawk-moth cocoon!



Elephant Hawk-moth cocoon ©Anthony McCluskey



# CATERPILLAR FOODPLANTS

## TREES AND SHRUBS

Here's our list of top trees and shrubs and some of the species that use them. Any plants with (N) beside them also provide nectar. Planting any of those trees and shrubs is a good start. The plants here are organised by size with smallest first, so you can find something to fit any space.

**Plant these**

- Silver Birch 🌿
- Downy Birch 🌿

**To help Large Emerald moth**  
Plus 130+ other moth species!



Large Emerald moth ©Iain H Leach



Hebrew Character moth ©Iain H Leach

**Plant this**

- Oak 🌿

**To help Hebrew Character moth**  
Plus 100+ other moth species!

**Plant these**

- Apple (N)
- Cherry (N)

**To help Red-green Carpet moth**  
Plus 50+ other moth species!



Red-green Carpet moth ©Iain H Leach



Streamer moth ©Iain H Leach

**Plant these**

- Honeysuckle (N)
- Dog-rose (N)

**To help Streamer moth**  
Plus 40+ other moth species!

**SUPER PLANTS!**

Plants with this icon can feed over 100 different moth species



Brimstone butterfly ©Iain H Leach

**Plant these**

- Alder Buckthorn
- Purging Buckthorn

**To help Brimstone butterfly**



Mottled Umber ©Iain H Leach

**Plant these**

- Rowan (N)
- Field Maple (N)

**To help Mottled Umber moth**  
Plus 40+ other moth species!



Magpie moth ©Mark Parsons

**Plant this**

- Gooseberry or currants

**To help Magpie moth**  
Plus 15 other moth species!



Buff-tip moth ©Iain H Leach

**Plant these**

- Hazel
- Alder

**To help Buff-tip moth**  
Plus 100+ other moth species!

**Plant these**

- Willow (N) 🌿
- Aspen

**To help Poplar Hawk-moth**  
Plus 150+ other moth species!



Poplar Hawk-moth ©Iain H Leach

**Plant these**

- Hawthorn (N) 🌿
- Blackthorn (N) 🌿

**To help Brimstone moth**  
Plus 130+ other moth species!



Brimstone moth ©Iain H Leach





# HOLLY AND IVY

## THE ULTIMATE ALL-ROUND WILD SPACES



Ivy ©Anthony McCluskey

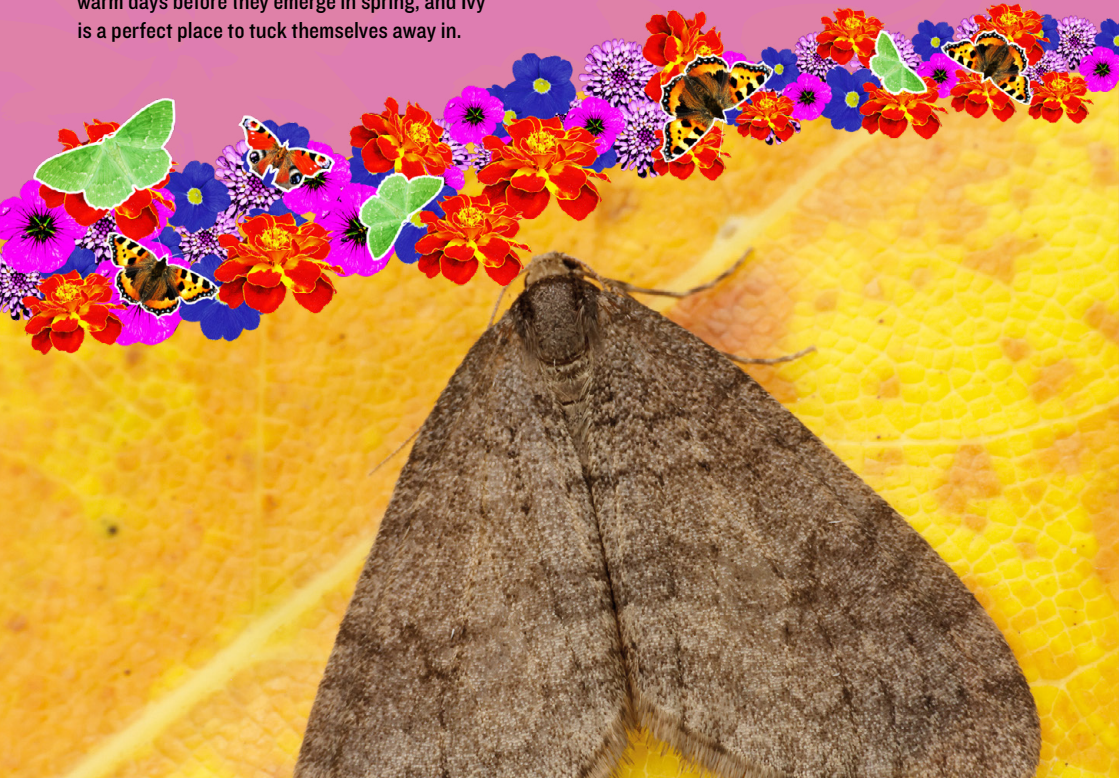
Ivy is one of the most useful plants in a garden or woodland. Caterpillars of 15 species feed on Ivy, and when it flowers in late summer it provides nectar for butterflies that spend the winter as adults, such as Peacock and Small Tortoiseshell. Holly Blue butterfly caterpillars will eat Holly flowers in spring and ivy flowers in autumn, so it's good to plant both of these together to help that species.

The evergreen leaves provide a perfect place for caterpillars to shelter and pupate too, while providing cover and nesting sites for wild birds like wrens and robins. Some butterflies (like Peacock and Small Tortoiseshell) and moths spend the winter as adults, waiting for the first warm days before they emerge in spring, and Ivy is a perfect place to tuck themselves away in.

## WONDERFUL WINTER MOTHS

The Winter Moth and Northern Winter Moth are just two of the moth species that fly in the winter. They lay their eggs on twigs of various trees and shrubs, so their caterpillars only hatch out in springtime when the plants start growing again. This provides an important source of fresh food for Blue Tits and Great Tits, whose chicks can only eat invertebrates like these. It can take over 30,000 food items to raise one nest of Blue Tits, so planting native trees to attract moths will also help the birds in your area.

Winter Moth ©John H Leach



# LOOK AT LIFE-CYCLES

## HOW YOU CAN HELP THESE BUTTERFLIES AND MOTHS FEED, BREED AND SHELTER IN YOUR WILD SPACES



Orange-tip ©John H Leach

**Orange-tip butterflies** are found in damp meadows, edges of woodland and gardens. Only the males have orange tips to the wings.

**Feed and breed:** Orange-tip adults get nectar from the same plants their larvae eat: Honesty; Cuckoo-flower; Sweet Rocket, and Garlic-mustard. They also take nectar from spring-flowering plants like Bluebell and Bugle.

**Shelter:** Pupate on solid surfaces like shrub twigs. Help them shelter by not cutting these back too hard.



Speckled Wood ©Bob Eric

**Speckled Wood butterflies** are always found in grassy areas near trees and shrubs.

**Feed:** adults get sugar from honeydew made by trees, and will only be found in sunny places with trees and shrubs.

**Breed:** caterpillars eat long grass.

**Shelter:** can spend the winter as a caterpillar or pupa among grass stems or leaves. Help them shelter by leaving some areas untouched in winter.



Elephant Hawk-moth ©John H Leach

**Elephant Hawk-moths** get their name from large grey caterpillars which look like Elephant trunks. They have a wingspan of up to 6cm!

**Feed:** Night-scented plants like honey suckle and nicotiana

**Breed:** Caterpillars feed upon Fuchsia and Rosebay willowherb

**Shelter:** spends the winter in a cocoon among dry leaves. Allow leaves to fall and remain on the ground.



Grey Dagger ©John H Leach

**Grey Dagger moths** get their name from markings on their wings. Caterpillars are easy to find as they are quite colourful, and they have two humps on their upper bodies.

**Feed:** Adults fly at night from June to August and will drink nectar from a variety of plants flowering then.

**Breed:** caterpillars eat leaves of a range of deciduous trees and shrubs including Apple, Hawthorn, Blackthorn, Rowan.

**Shelter:** Overwinters inside a cocoon under tree bark or crevices on the tree, or under fallen branches on the ground. Help this species shelter by leaving fallen branches.



# WILD SPACES INSPIRATION

STUCK FOR IDEAS?  
HERE'S SOME INSPIRATION  
FOR YOUR OWN WILD SPACES!

This small garden in  
Edinburgh has a Rowan  
tree with ivy growing up it,  
and a wildflower patch



## SMALL GARDEN

In a small garden, space can be at a premium, so every plant you have needs to work even harder! Trees should be small (Cherry, Rowan, Dwarf Willow, or Apple on dwarf rootstock are perfect). You can grow climbing plants like Dog-rose, Honey suckle and Clematis through them too, and plant shade-tolerant wildflowers like Sweet Woodruff and Bluebells underneath. If you have a lawn, try letting some of it grow long all year round. This might be easiest near the trees. You can also reduce the mowing of your lawn to every 4-6 weeks to allow plants like clover, dandelion and self-heal to bloom and provide for insects.

Then if you have a flower border, fill it with perennial plants that provide lots of nectar, such as hardy geraniums. Foxgloves, Honesty and Sweet Rocket will also provide food for caterpillars of butterflies and moths and are easy to grow from seed.

## LARGE GARDEN

In a larger garden you can get closer to the full plant communities of natural habitats. So, a good starting place would be to plant a small woodland of native trees with 15 or more different tree species to provide for a wider range of butterflies and moths. You may also have the space to sow and maintain a wildflower meadow, using the instructions in this guide.

## NEW WOODLAND

If you have the chance to plant a new woodland of any size, stick to the trees and shrubs recommended in this guide and you can't go too far wrong! If possible, try to leave margins around the edges for grasses and wildflowers, and include some large gaps and open areas in the middle of the woodlands where wildflowers can grow. Lines of trees or hedgerows are perfect for boundaries in parks and gardens. Butterflies like Speckled Wood spend a lot of time flying around trees and shrubs, but their caterpillars only eat grasses, so it's important to have some long grass near the sunnier edges to help this butterfly.

## PATIOS, PLANTERS AND POTS

The plants you can grow in planters depends a lot upon their size. If you've got some very large planters—over 60cm wide and 60cm deep—you could plant small trees such as apples in very dwarfing rootstocks or hazel. Pots this size could also hold heathers around the bases of the larger plants.

For smaller pots and planters, drought tolerant Mediterranean herbs like **Citrus Thyme**, **Oregano**/**Marjoram**, **Rosemary** and **Lavender** will be most suitable as they can survive occasional dry spells. These all provide nectar for adult butterflies and moths, but you can provide for caterpillar stages by planting Bird's-foot Trefoil which will flow over the sites of pots with striking yellow flowers. Nasturtiums are another good choice—they're extremely easy to grow from seed, and the leaves and flowers are eaten by caterpillars of Large and Small White butterflies. To provide shelter for the pupal stage of any butterflies and moths in pots, allow the plants to die back naturally in autumn so that a layer of leaves and stems builds up over time. Other nectar plants that do well in medium-sized planters are **mint**, **chive**, **single-flowered Dahlia**, **Sea-holly** and **Salvia**. If you are using planters, remember to use only peat-free compost.

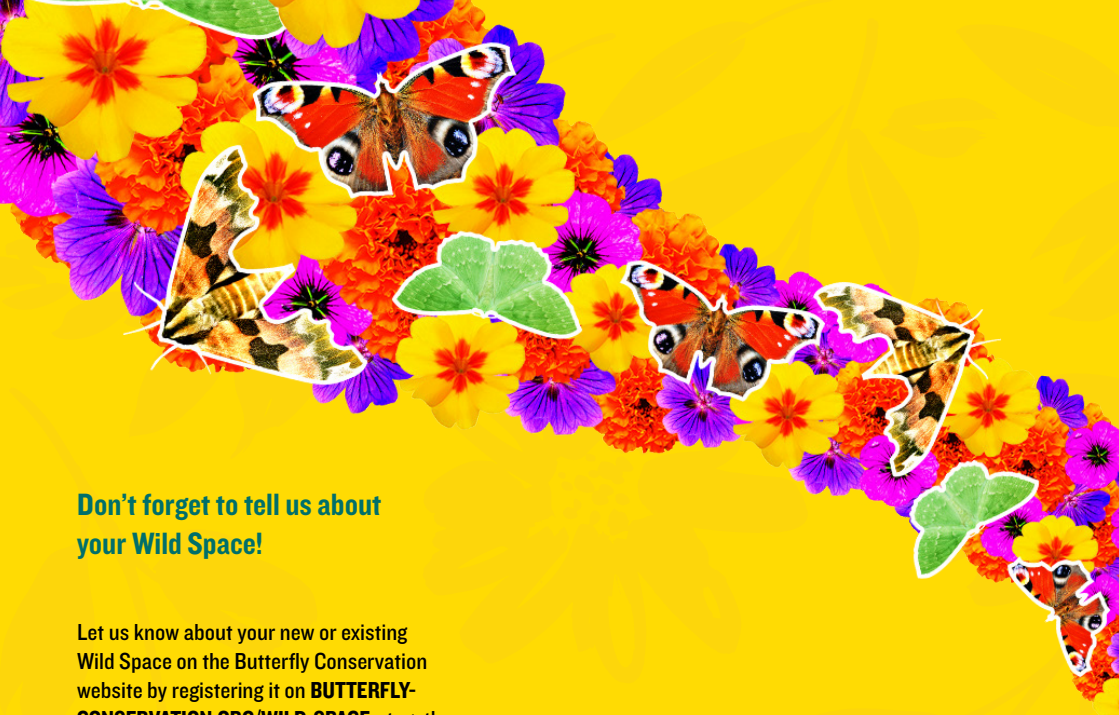
## FOOD GROWING SPACES

If you are growing food in a garden or allotment, you can still share your space with butterflies and moths! A native hedgerow will provide a warm microclimate to give faster growth of crops. You can also leave some herbs and vegetables like carrot and leeks in the ground so they flower the following year, providing nectar for insects. And to keep the white butterflies away from your covered brassicas, grow 'sacrificial' broccoli or cabbage in other parts of the garden to distract them. Flower-rich herbs like Thyme, Rosemary, Marjoram, Mint and Mint are also very attractive to insects, so grow those too!



Herb Planters





## Don't forget to tell us about your Wild Space!

Let us know about your new or existing Wild Space on the Butterfly Conservation website by registering it on **BUTTERFLY-CONSERVATION.ORG/WILD-SPACE** - together we want to achieve 100,000 new Wild Spaces for butterflies and moths across the UK!

And take a photo of your patch, share it on social media using the hashtag **#WildSpaces**. Not only do we want to see what you've been doing to help butterflies and moths thrive on your doorstep, but sharing what you've been up to with the wider world will help inspire other people to take action.

### Butterfly Conservation

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