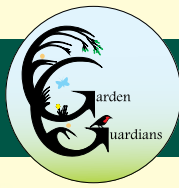


Garden Guardians



**Taking care of the wildlife on your own doorstep
Doing your bit for the health of the planet
Looking after yourselves and those around you**



Garden Guardians

This leaflet provides a simple and useful guide on how to encourage wildlife into your own garden, providing habitat and the vital, basic things they need to survive.

Things we all need to survive.

As you garden for wildlife, you can also improve your own health and well-being and do your bit for the planet. You can involve the whole family in a wide range of things to do. If your neighbours do the same you can provide important green corridors through which wildlife can move. At the same time, you can strengthen neighbourhood friendships and build a greater community spirit.

Gardens are a really important habitat for so many species of wildlife. They bring colour, fun and sounds to the spaces around us. But don't take their presence for granted.

It need not be time consuming or expensive to provide greater opportunities for wildlife in your own garden and the rewards are great.



Insect pollinators

Bees

It might be that the fear of being stung by bees, whether a honey bee or a bumblebee, has prevented you from looking closely at this most important family of insect pollinators.



Bumble Bee

Did you know that there are dozens of species of bumblebee? That in our gardens you can find species from other bee families such as mining bees, mason bees, cuckoo bees, leaf-cutter bees and carpenter bees. Some are tiny and can easily be missed or mistaken for different insects. Some are sociable, others solitary.



Mining Bee

It is only the female of a species that can sting and while in the UK, honey bees and bumblebees have painful stings, most species carry no sting or one that is unable to pierce human skin. If you are allergic to bee stings, take extra care. But this should not stop you enjoying the sights and sounds of bees in the garden.

Planting for bees

The best way to attract bees to your garden is with a selection of different flowering plants. Bees are active throughout different parts of the year, so a range of seasonal plants are best. They will emerge on warm days in late winter.

Here is a list of some of the best plants for a range of bee species throughout the year. There are many more. Keep a good eye on the bees in your garden to see which are the most popular.

Marjoram (Spring)
Bluebell (Spring)
Hawthorn (Spring)
Fennel (Summer)
Comfrey (Summer)
Lavender (Summer)
Honeysuckle (Autumn)
Sedum (Autumn)
Rosemary (Autumn)
Mahonia (Winter)



Honey Bee on Fennel

Homes for bees

Occasionally honey bees and some bumblebees will colonise spaces and cavities in our homes. Unless they disturb you directly, they are best left to their own devices. If you do need advice, why not find and call your local bee expert rather than a pest controller.

A number of solitary bee species make nests in holes. We can provide homes for these bees very easily. All kinds of bee and insect homes are available to buy these days, but why not make your own and in the process, you can recycle things you might otherwise have thrown away.



Insect pollinators

Flies

There are a number of species of fly that have given the family a bad name - those that make pests of themselves around the house and that have a taste for our own food. Others that spread disease.

But the family of flies (Diptera) is a very large one and many species have a beneficial role in our gardens as pollinators. This is particularly true of the hoverflies. So often confused with bees and some with wasps, they are important pollinators of flowers. They all hover in the air before alighting on flowers and have larger heads than bees with larger forward facing eyes. They do not sting.

Their larvae of a number of species consume large quantities of aphids before pupating into adults.



Hoverflies prefer tiny flowers because they have small mouths. Members of the cow parsley family (also known as umbellifers) are perfect for them. These include Astartia, Cow Parsley and Angelica,

One of the best bee mimics is not a hoverfly. It is the Bee Fly. One of the earliest species to emerge in the spring, this 'ball of fluff' hovers close to the ground feeding on plants like violets and lungwort with its long proboscis.



There are a huge number of small flies that you really have to search for. Picture wing flies, soldier flies, stilt-legged flies, fruit flies and of course midges.



We should also welcome some flies as predators. The presence of species that eat other insects may show that healthy food chains are functioning in your garden. These predatory flies may themselves get eaten by birds.



Insect pollinators

Butterflies and moths

Gardens are very important for butterflies and moths. There are a number of butterfly species that regularly come to our gardens and you can attract more with the right plants or how you tend your garden. They may already inhabit other areas nearby and will be looking for new feeding and breeding opportunities.



Small Tortoiseshell

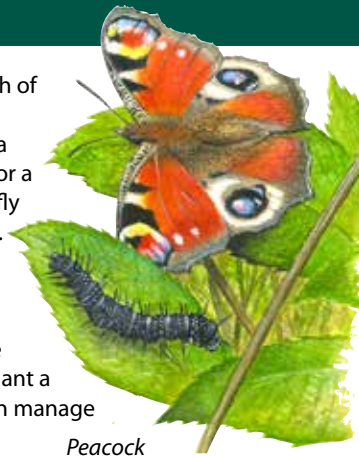
At night, our gardens are visited by a wide range of moth species, many of which will rest up during the day, hiding around the garden and house. You might be surprised at just how many.

All butterflies and most moths require nectar from flowers for food. Simple flat or cup-shaped flowers are best, for example Night-scented Stock, Marjoram (Oregano), Lavender and Buddleia.

Caterpillars mostly feed on plants of some kind. Some of their favourites are Nasturtiums, Mint and Marjoram. Each species will require one or more specific food plants, known as 'larval food'.

All are native plants and many are thought of as 'weeds' – but a weed is only a plant where you don't want it! Let's think again about how useful some weeds can be!

Try to keep a patch of nettles and rough grass. Nettles are a great food plant for a number of butterfly and moth species. When you dig up nettles from your borders, is there somewhere in the garden you can plant a patch that you can manage more easily.



Peacock

Leave some areas untidy over the winter; don't cut down all the dead flower stems; don't cut down all the ivy; leave some plant debris and some undisturbed ground. This helps the eggs, caterpillars, moths and butterflies that need somewhere to stay safe. Night flying moths will often find warm crevices close to the house to hide up during the day, sometimes venturing into the house itself. Don't disturb them if you find them.



We do not see most species of moth because they are night fliers.

There are some day-flying moths you may discover. This very small, attractive moth is the Mint Moth. Found on Mint, Cat-mint, Marjoram and Thyme.



Insect pollinators and predators

Beetles & bugs

There are more species of known beetle on the planet than any other family of insects. Many are important pollinators of plants. Some like the leaf beetles are tiny and often overlooked. Others are among the most colourful visitors to our gardens.



Ground Beetle

Providing a pile of logs somewhere in your garden is one of the best things you can do for beetles and other wood boring invertebrates. Beetle larvae bore through the wood, whilst adult ground beetles hunt other invertebrates in the dark places beneath the logs.

We often use the word 'bug' to describe all insects. There is a family of insects that are true bugs. They include stink bugs, squash bugs, leafhoppers, assassin bugs and water bugs.



*Longhorn Beetle
on Ox-eye Daisy*

Probably the best kind of plants to attract beetles are umbellifers, such as fennel, hemp agrimony and cow parsley. These and plants like Golden Rod and may attract some of the longhorn beetles.



Above: A Fire Bug. It feeds on fallen seeds, but will also attack other insects.

Water bugs include pond sketrs, water scorpions and the back-swimmer (below)



A Cardinal Beetle. Slow moving and found on all kinds of plants and often tree trunks and stumps.



Birds

Feeding and feeders

The most obvious way to attract birds to your garden is by providing food. If you can afford it, there are a great variety of bird foods available in our supermarkets, garden centres and other retail outlets.

Websites such as RSPB or BTO can give advice on ethical bird food, such as which brands to buy. With climate emergency upon us, try to source bird food grown in the UK. You might try growing plants such as millet, sunflowers, teasels and ornamental thistles.

You should try to avoid foods that come in plastic netting. Birds can get their feet stuck in this. This is also a single use plastic, something to consider with any packaged bird food you buy.

Different species prefer different kinds of seeds, so a good starting point is to provide a variety of seeds and these are available to buy in different mixes. Seed can be placed in feeders, on a bird table or thrown over the ground (Some species like the Chaffinch prefer the ground).



Goldfinch

When providing seeds in feeders, ensure the feeders you use are waterproof and that they can be easily cleaned. It is advisable to empty and clean them regularly, ensuring any uneaten food does not go mouldy.

Household scraps

You can feed the birds household scraps, but need to exercise some caution in respect of what foods you put out, the quantities, the safety of your pets and concerns about rats, etc.

The RSPB have some good information on this:

www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/feeding-birds/

Some things you can feed the birds:

- *Mild grated cheese*
- *Fresh coconut in the shell (drain any liquid)*
- *Cooked rice, brown and white (unsalted)*
- *Cereals - oats (uncooked) and small quantities of any breakfast cereal with a nearby supply of drinking water.*



Blackbird

The best time to feed the birds is in the morning and you can provide food all year round, although the winter months are a priority.

Remember that the food you put should be supplementing the birds natural diet. You can help here too with plants that encourage a greater variety of animal species to visit the garden, those that provide insects and wild seed and fruits for the birds.



Bird Tables

The basic design of timber bird tables consists of a post supporting a tray which in turn supports a roof.

While your bird table should have sides to stop food being blown away, ensure you clean and remove any residue that builds up around the sides. If you are handy at woodwork, why not try and make your own. You may be able to upcycle some old timber as a fabulous bird table.

If none of this is possible, try putting food on any flat surface as long as it is safe from cats and not too close to foliage. Birds like to have a clear flight and view when feeding.



*Blue Tit
bathing*

Drinking and bathing water

As well as food, birds need regular clean drinking water, particularly during the coldest and the driest months. Ensure it is provided in something that won't tip over. Make sure the water is not too deep and the birds can stand on a safe ledge or in the shallows.

Homes

There are a number of bird species that will readily make their homes in your garden. Species that would normally live in holes in trees, like the blue tit and great tit will use man made nest boxes. Birds like the Robin will use a box with an open entrance. The RSPB have information on the type of boxes suitable for different species and where best to position them.



Blue Tit

You need for example, to ensure that it is not in direct sunlight and out of reach of any cats. Grey squirrels will take eggs and young from nests. Great spotted woodpeckers can be welcome visitors to the garden, but they will open up the holes and feed on the eggs and the young.

If some birds do take up residency in your garden or that of your neighbours, you may be rewarded with the sights of sounds of hungry families of blue tits, great tits and other species during the early summer months.



A fledgling Robin

Amphibians & reptiles

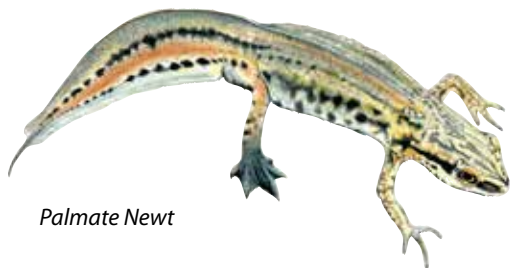
The UK has a few species of amphibians and reptiles. We are lucky that a number of them visit or make their homes in our gardens.

The best way to attract amphibians to your garden is a pond. It need not be large, but both frogs and newts like floating vegetation for cover and safety. Next best thing is a boggy area where you allow water to gather and drain slowly. Add the appropriate plants and some places for creatures to hide.



Common Toad

Frogs and newts will travel some distance, often well away from any standing water to hibernate, before returning to water in the spring and summer. As they do so, they can crop up just about anywhere.



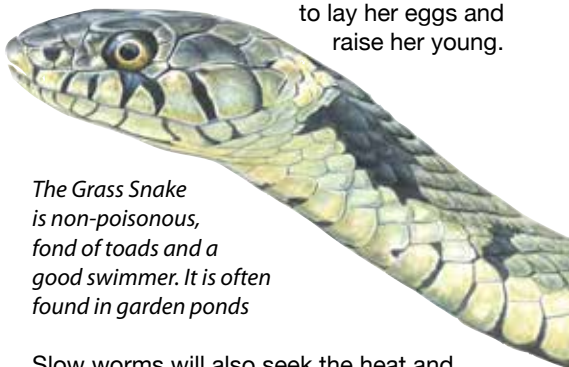
Palmate Newt

When they are hibernating, frogs, toads and newts like dark, warm places to hide up. such as beneath thick leaf mould or a log pile.



A young toad breaking cover

Compost heaps are also a good habitat for these hibernating amphibians as well as a home for the Grass Snake, providing a safe, warm place for the female to lay her eggs and raise her young.



The Grass Snake is non-poisonous, fond of toads and a good swimmer. It is often found in garden ponds

Slow worms will also seek the heat and darkness of the compost heap, although if they are present, the best way to provide for them is to lay some old carpet or corrugated metal sheeting on the ground for them amongst the grass and/or mulch. Try and resist looking underneath too many times and wait til the summer before you do.



Slow Worm

Mammals



Attracting some of our larger mammals into your garden can have implications. For some, the presence of foxes, badgers and deer are welcome. For others, the damage they can do to lawns and plants, particularly the latter two, can be upsetting.

Badgers will make their setts in wooded areas, so likely outside of gardens in general, which they will visit for one reason - food. They will use traditional trails through neighbourhoods and can be very determined if those trails are blocked.

If you are happy to welcome these creatures into your garden, remember they are nocturnal and while you may enjoy their presence, they are not there for your amusement.

You can provide a sanctuary for another smaller night time creature - the hedgehog. Once common visitors to our gardens, its numbers have declined such that it is now endangered in the UK.

Hedgehogs will always use the same routes as they forage for food and seek shelter and warmth. Our garden fences can stop them doing so. Providing a small opening at the base of your fence, will enable them to move through gardens.

Have a chat with your neighbours about providing safe routes for Hedgehogs.

Information at: www.hedgehogstreet.org

If you wish to feed hedgehogs, try using tinned cat food and always provide a shallow dish with fresh drinking water. Never put cow's milk out as this is harmful to them.



A visiting hedgehog will likely reward you by reducing the number of slugs in your garden.

For many people, having rodents of any kind, anywhere near the home, is unwelcome. Mice, voles and shrews will all visit our gardens. The latter two are unlikely to wander into our homes.

Grey Squirrels are cute and fun to observe, but predators of eggs and young birds in the nest.



Water

If you have a pond, you will know the wildlife delights it can bring - newts, frogs, pond-skaters, water beetles, back swimmers, damsel flies and dragonflies to name a few.



*One of the best loved creatures to take up residence in garden ponds.
The Common Frog.*

Ponds are a vital habitat for a range of species. Those that live beneath the surface, on the surface and those that visit them to feed and lay eggs.

It does not need to be large pond, but you need to ensure there are different depths of water - shallows around the edge and deeper section in the middle. The deeper this is, the better chance of things surviving beneath any ice on the surface in winter.



Ensure you include floating vegetation in the pond that creates oxygen and marginal plants in the shallows. Try to ensure there is some shade, but avoid putting your pond below trees. Fallen leaves can sink to the bottom and add too many nutrients to the water.



Broad Bodied Chaser

You can create a pond using a bucket or an old sink or any container, provided it will hold water. Put pebbles/stones in the bottom. Add something that allows creatures to enter and leave the water. Add one or two water loving plants.

Saving water

Of course, it is not just the animals that need water. So do our flowers and vegetables. Whatever our summers are like in the years to come, it makes sense to conserve as much water as we can. We may find tap water in shorter supply.

Rain water is always best for the plants and you can capture this in water butts from down pipes from the roof of the house or outbuildings. Failing that, any large container left outside in the rain.



The down pipe from the roof gutter has been re-routed into a water tub, purchased for £10.00 through a social media marketplace.

Organic

Your garden can be a rich mosaic of plants and creatures that interact and affect each other. Sometimes we may have too much of one type of plant or creature, often called a 'weed' or 'pest' only because it is somewhere we don't want it! For the past few decades we have increasingly looked to 'pest control' products to remove our unwelcome visitors. Unfortunately, most chemical products from the supermarket or garden centre affect more than just the 'target' species. Some common examples –

Slug pellets – can kill other species that feed on slugs, particularly hedgehogs, which have declined by a staggering 50% in less than 20 years!

Herbicides – products that kill plants – often kill other plant species if in contact, and products with glyphosate as the active ingredient may cause harm to bees through damage to their internal bacteria. By using lawn 'weed and feed' we remove all other plants apart from the grasses, leaving little more than a desert for wildlife!

Insecticides – such as products used for 'bug killing on fruit and vegetable crops' – contain warnings that they are 'very toxic to aquatic life'. They will kill more than just the pests – do we want to eat fruit we have covered in insecticide?

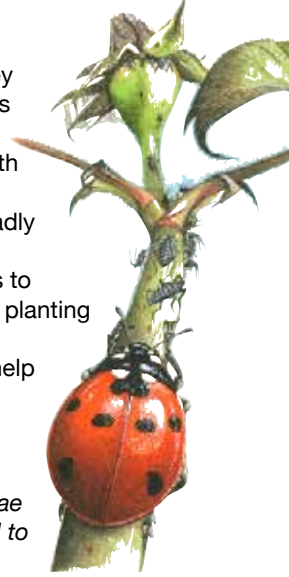
Using artificial chemical controls can cause harm and a disruption in nature's balance because these controls so often harm all of the beneficial plants or creatures as well as the 'pests'.

Remember also that what your neighbour does may affect the wildlife that visits your own garden. So it's good to talk about this together, stay informed and find sustainable solutions.

Please save your money and leave the chemicals on the shelf! If there is a particular problem with slugs, encourage more hedgehogs who will gladly reduce the population! Or encourage ladybirds to feed on the greenfly by planting marigolds! Even the oft-berated wasp can help with removing many other pests.

*Aphids look out!
Ladybirds, ladybird larvae
and hoverflies are good to
have around.*

Below. The larvae of a hoverfly feeding on aphids. The discarded bodies of those it has eaten lie all around it.



There are many ways to create beautiful and abundant gardens without using harsh chemicals. Gardens we can share with nature, giving us healthier food and colour whilst helping the creatures who we share the planet with, and whom we ultimately depend upon for our own futures.



'Creative' gardening

The natural world around us has probably provided more inspiration to artists, writers, poets and musicians than anything else. You too can be creative in how you garden, provide for wildlife, and cut down on waste.

In a time when concerns about the waste we produce, the things we throw out, plastics, etc, you might like to think about how you could re-use things or find new uses for commonplace items and be creative in the process.

You might make recycle old timber palettes to create homes for wildlife or use it to make fencing or garden furniture. Companies and retailers are often happy to have someone take them off their hands.

The tree you pruned has left you with a bundle of branches. Can you create trellis or support for plants? Will that larger, straight branch make a good post on which to support a bird table?



Autumn tree pruning - is it a screen, a trellis, a hedge, an animal home - it's all four! Stand some straight stems in two rows, pushing them into the ground. Lay other cuttings horizontally between them. Over time, those on the bottom rot and the natural hedge sinks.

Take a handful of bamboo canes and cut them down into small lengths 10 - 20cm. Stuff them into any box like or round object and fix to a wall or fence to make a solitary bee hotel.

It's not just about being creative for wildlife. Are there things you can create to avoid that trip to the recycling centre?



Above - Waste material has been used to create a path - bricks, clinker, slate, stones contained within timbers from a pallet collected from a local industrial unit.



Above - a garden seat made from the headboards and slats of a single bed. No real carpentry skills required.

Think soil



Most of the fundamental natural and ecological processes that drive the planet are taking place in your garden.

We are more aware than ever now about the value of trees. Their absorption of carbon dioxide in exchange for the creation of oxygen.

Yet one of the most important carbon stores is beneath our feet . The soil. We are only recently coming to realise just how important it is. Our future depends on us learning to value it. and treat it with care and respect.

Did you know that a teaspoon of soil can contain more organisms than there are people on the planet?!

Modern farming practices can cause soil depletion and run-off into watercourses, leading to destruction of under-water wildlife and soil depletion. Synthetic fertilisers are often needed to create enough for the next year's crop, and a cycle of depletion occurs, causing damage to the structure and life held within the soil.

Gardeners know only too well how the success or failure of their flowers and vegetables can hinge on the quality of their soil.



We now know that trees rely on fungi called mycorrhiza to help them feed and communicate! Our soil is one of the richest ecosystems, consisting of many particular conditions known as 'niches' that are needed for the survival of many individual species.

Soils lock up carbon, so can help, along with other ways such as tree planting, to help slow down the very real threat of global heating. Healthy soils can act as sponges, so along with other measures, can retain fast falling or flowing water and so reduce the severity of flash-flooding caused by unpredictable or extreme weather patterns.

A healthy soil will also have a high component of organic matter (decaying plant or animal matter) which helps retain water, reducing the chance of drought. Other ways to help your garden soils to keep moist is to use a mulch on any bare ground – this keeps the soil insulated against extremes such as heavy rainfall and prolonged dry periods.

Keep a compost heap for grass cuttings, leaves and organic kitchen waste. Turn it, water it occasionally and it will turn into a rich, healthy soil that you can apply to your garden.

Family, friends, neighbours

Bringing wildlife to your garden can foster a greater joint appreciation of the natural world among family members, leading to shared activities and experiences.

Learning is a lifelong thing and it's wonderful if different generations can enquire and find out things together. This can then spark greater interest and a desire to find out more.

Every year the Royal Society for the Protection of Birds has a garden bird count. You may already take part in it. But don't just do it once a year. Why not keep a regular record, a diary of the species and their numbers that visit your garden.

The natural world has to have been the greatest inspiration to artists, poets, writers, musicians and others since we first set foot on the planet.



Let your garden be your inspiration - explore it, get close to it, photograph it throughout the seasons, draw what you see, create a scavenger box where you collect things. Your photographs may help you identify species or send them to experts to identify. There are a number of web sites that can help do this for you.

Garden wildlife can be enjoyed from the comfort of your own home at any time of year.

However, it is good for the mind and body to be out of doors as often as possible. Proven research shows that being in or close to nature has therapeutic benefits, mentally and physically.



The oxygen levels close to trees and greenery are higher than when surrounded by buildings and in a warmer world, gardens can bring shade and coolness.

Your garden can provide a safe environment for young children to explore - a playground to nurture their curiosity. Sharing that curiosity throughout the family can bring fun and leaning for all.



Talk with others in your street about what you are doing, encourage each other to do the same. In so doing, you can create linear corridors for wildlife to move.



Below are a list of online links that can provide more information:

BUG LIFE: www.buglife.org.uk/activities-for-you/wildlife-gardening

ARGUK <https://www.arguk.org/>

Blue Campaign <https://bluecampaignhub.com/>

BTO <https://www.bto.org/>

Hedgehog Street <https://www.hedgehogstreet.org/>

Permaculture Association <https://www.permaculture.org.uk/>

Rewilding Britain <https://www.rewildingbritain.org.uk/>

RSPB <https://www.rspb.org.uk/>

Soil Association <https://www.soilassociation.org/>

Wildlife Trusts <https://www.wildlifetrusts.org/>

RHS <https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinator>

Stroud Nature CIC is a not for profit Community Interest Company and coordinates the Stroud Great Green Partnership. Our thanks to Stroud Town Council, Gloucestershire County Council and Friends of the Earth for their support.

T 07811 471106

E admin@stroudnature.org

W www.stroudnature.org

