



# BIODIVERSITY in your garden



# What is BIODIVERSITY ?

Biodiversity is the better word to describe all the different types of organisms on our planet earth such as plants, insects, mammals, birds, amphibians and so on as well as the diversity of ecosystems in which they are found and diversity of each species. Quite often some people that live in the towns and cities only think of a wildlife and biodiversity as something you watch on a telly. However in reality your life depends on our biodiversity: without plants there would be no oxygen, without bees to pollinate there would be no fruit or nuts so our food that we eat, our water that we drink and the air that we breathe rely on biodiversity.



# Benefits for us as well as for the planet

Apart from the obvious (things on the left), gardening for biodiversity also has benefits for human health and well being. Research has shown that exposure to nature is good for your brain! Sterile garden, with tightly mown grass or hard/artificial surfaces, offers us no exposure to nature, no buzz from busy insects, no birdsong, no life. We feel better when we are surrounded by nature and this sense of wellbeing increases directly with an increase in biodiversity – with more different types of plants and animals, the better you will feel! Imagine the benefits of bringing some of that feel-good nature to your back door!

In this time of climate and environmental ‘anxiety’ wildlife gardening is a great way to help you to feel like you are doing something positive to help your local wildlife and community. Also by using all our senses to appreciate the nature we can be more mindful of the present, combat stress and gain emotional resilience. Some studies have proved that strong connection to the nature enhances our emotional well-being and alleviates feeling of social isolation.

Inviting birds, butterflies, bees,  
wildflowers and trees into your  
own garden won't just help the  
planet, it will help you too!



# Every garden is important!

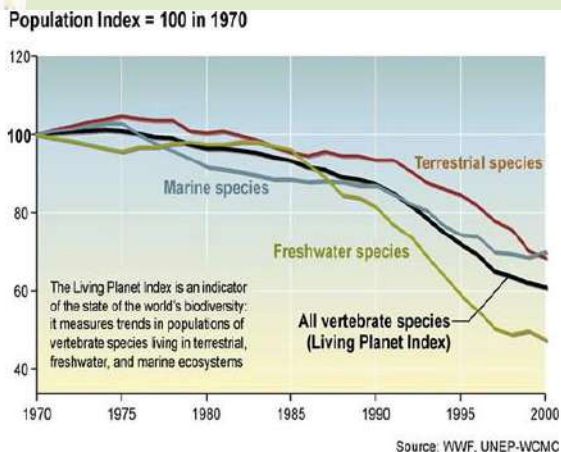


Scientists agree that we are currently witnessing the 6<sup>th</sup> Mass Extinction, but what does that mean? On a global scale, we are losing species at a rate comparable to the extinction of the dinosaurs! In our country there is worrying decline of some of our insects, birds, fish, mammals and amphibians.

This is due to a variety of factors, including habitat loss, habitat fragmentation, pesticide use, climate change, etc. Our countryside is becoming more and more managed, more uniform and even more sterile. As our housing, infrastructure and intensive agriculture increases our nature is being more and more 'squeezed out'

If we want to do something about this we need to start to create change right outside our own doors. Private gardens represent huge potential habitat and refuge for some of the pressured wildlife. No matter how big or small the space – and no matter where you live. There are lots of ways in which you might want to open your garden up to nature. It all makes a difference, even in very small ways like hanging up a bird box on your house or flat or in larger ways such as making a wildlife pond.

*“Recent research indicates that private gardens in Britain cover an area bigger than all of the country’s nature reserves combined, estimated at over 10 million acres. Individual gardens may be small but they create important green links between urban nature reserves and the wider countryside, forming vital wildlife corridors.” –The Wildlife Trusts*



## WILDLIFE IN THE UK



PROPORTION OF UK ANIMAL SPECIES DECLINING IN NUMBER SINCE 2002

Source: RSPB, 2016



NUMBER OF UK MAMMAL SPECIES AT HIGH RISK OF EXTINCTION

Source: Mammal Society, 2018



DECLINE IN NUMBER OF HEDGEHOGS SINCE 1995

Source: Mammal Society, 2018



NUMBER OF BRITISH BUTTERFLY SPECIES DECLINING

Source: Butterfly Conservation, 2015

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# Four keys to gardening for BIODIVERSITY:

1. Food
2. Shelter
3. Water
4. Biodiversity - friendly management

Whenever we try to help a species in our garden, we should consider how we might provide food, shelter and safety. We also must consider if our garden management may be damaging to any species in any way. While we can never replicate natural habitats that have taken many thousand of years to evolve, we can try to replicate semi-natural 'mini versions' that meet these needs.



We can all help to form a patchwork of biodiversity-friendly gardens across the countryside

# BIODIVERSITY - FRIENDLY management tips



## Don't use pesticides

If you can avoid using chemicals, your garden will be much more biodiversity friendly.

Remember that the insects and slugs you are trying to kill, are food for the birds and mammals and the flower we call weeds are often really important food sources for pollinating insects.



Slug pellets can be very harmful to birds and mammal such as hedgehogs who pray on the slugs and snails. Instead you can try a copper wire or a beer trap. Adding a strip of copper around flower pots or raised beds can help deter slugs and snails. Dandelions which you are mowing, pull them out or spray them are providing a great source of food for pollinators. If you're planning on cutting your grass in the early spring think about these yellow flowers! Bees and other insects will be grateful to you.

## Make your own compost

As well as a way to recycle your garden and kitchen waste and giving good food for plants a compost heap is also important site where some insects, spiders, worms, snails , etc can live and breed.



## Conserve water

Harvesting a rainwater in your water butt saves water and can be used to top up the bird bath or the pond and to water the garden.



## Only buy peat-free compost

If you have to buy compost and don't make your own by choosing peat-free compost, you will help to conserve our remaining peat bogs and their unique biodiversity, including wading birds, amphibians, rare dragonflies and butterflies.





# For the love of birds

Leaving out food for garden birds is a great way to invite nature into your garden.

## Tips for your garden restaurant:

**Hang feeders within view of a window.**

It will not only allow you to enjoy watching the birds but will also remind you to keep the feeder topped up!

**Keep food fresh.** Don't offer damp or mouldy food or bread.

**Keep out of reach of kitty!** Try to keep feeders about 1.5 meters above ground.

**Keep things clean.** Feeders and bird baths must be washed regularly to avoid causing illness, undoing all your good work.

**Keep to regular meal times.** If you are feeding birds often than make sure you don't skip the meal as your birds might become dependant on this food source, specially in the winter and can waste valuable foraging hours waiting close to garden feeders for the food to appear.

## Grow natural bird food

On top of offering food in bird feeders you might consider adding plants that provide natural food for birds : Ivy – provides good bird cover for nesting and berries are eaten in late winter. Holly – for good fruit crops plant native variety and a male and female close together. Blackthorn Slows, Sunflower, Wild cherry, Honeysuckle and many more provide great shelter and food for birds.



## The menu

**Peanuts** will attract Blackbird, Blue Tit and Great Tit, Chaffinch, Greenfinch and Goldfinch.

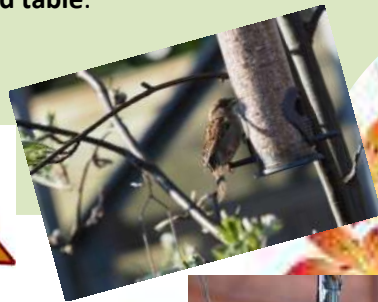
**Seed mixes** attract Wood Pigeon, Collared Doves, tits and finches.

**Sunflower seeds** will especially attract Coal Tit, Greenfinch and House sparrows.

**Coconut** – cut it in half and drill a hole Bullfinch, Coal Tit and House Sparrows. in the top. Use the string to hang downwards from the branch so it stays dry. Lots of different birds enjoy coconut.

**Kitchen scraps** – not all the kitchen scraps are suitable. Try porridge oats, cheese, baked potatoes, raisins, sultanas or apples. Avoid bread or desiccated coconut as both can swell up in the bird's stomach.

Blackbirds, Thrushes, Robins and few other birds prefer to feed from the ground or a **bird table**.





## Water



Living in such a rainy country we often overlook the importance of supplying a water source for birds in our gardens, but in dry or cold weather a bird bath can have a hugely positive impact for local birds. There are now less natural ponds and fields ditches to offer water so including a bird bath will make your garden much more attractive to birds and enjoyment for you as you observe their antics in your bird bath.

Why not try and make one your self? It's easy if you just get 4 solid sticks of wood or wood round and place and secure flower pot saucer on top. You can also make one on a rock pile or even on top of overturned flower pot.



*While we are on a subject of DIY you could also make a bird feeders. Plenty of instructions online and here are few ideas.*



# Shelter



You can encourage birds to nest in your garden by offering suitable nesting sites, like shrubs, hedges or trees. If you decide to build them a nest box, place it securely as high as possible, facing north-east in a sheltered spot.



Some birds will choose natural cavities like this hole in the brick wall or gaps in the stone walls.



Robins will use open fronted nest boxes or may choose a ledge in a garage or shed.

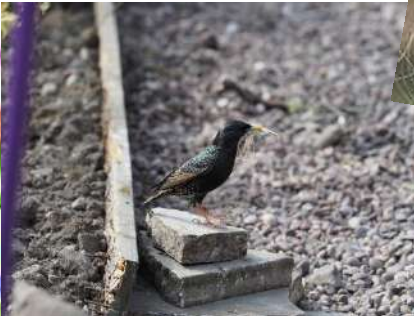


Tits and Wren use nest boxes with a small entrance hole, which mimic their natural nest holes in trees.

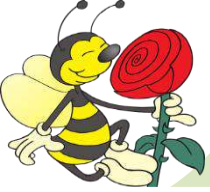
When thinking about shelter for birds please consider the beautiful House Martins and think how far it has travelled to get to your home! If you overlook some droppings around the house you can enjoy wonderful display they put on as they soar and swoop, picking off midges and other flying insects. You can help them by leaving out bowl of mud as building supplies for their nest or you can save them hard work by building them a nest box.



This overgrown shrub might not look very neat and tidy but it provided a home for a 4 black bird chicks and so much enjoyment for me watching them grow.







# For the love of butterflies and the bees



You can help pollinating insects and have a beautiful garden as there is a wonderful array of pollinator-friendly flowers to choose from. The key is to try to provide pollen-rich flowers from spring to autumn such as Lavender, Globe thistle, Crocus, Snowdrops, Willow, Heather, Foxglove, Allium, Rosemary, Bluebells, Common poppy, Evergreen Clematis, etc.



Seeing butterflies and caterpillars in our gardens has become a much less frequent and this is because we have made our gardens more sterile, with tightly mown lawns, with less diversity, through the use of fertilisers and pesticides. Garden without their natural foods is not place for caterpillars.



Daffodils, Tulips and traditional bedding plants like Geranium, Begonia, Busy Lizzy, Petunias or Salvia virtually have no pollen and nectar and are of little value to pollinators.



Stinging nettle is the food plant for lots of butterfly caterpillars. If we want to have these beautiful butterflies as adults, they need nettles as their baby food! The common nettle is the food plant for Small Tortoiseshell, Red Admiral, Comma and Peacock butterflies.

Maybe you should consider keeping leaf litter or raking it into a pile in your 'wild corner' for wildlife. Over the winter months, moth and butterfly larvae are often found in leaf litter. By dumping it, you are raking up a whole generation of these insects, and also affecting the diet of the birds that rely on those insects for food.



Leave an untidy corner of your garden for wildlife!



# For the love of mini-beasts

It is the small plants, the wildflowers and the bugs, caterpillars, spiders and other creepy-crawlies that are so important as they form the base of the food webs that support all of the other species. Without the small guys, our charismatic larger fauna can't survive!

## Beetles

Our beetles are suffering declines similar to other species and possible cause is loss of habitat, climate change and pesticides.

They are important not just because their role in food webs and ecosystems but also they are important decomposers and are vital to recycling nutrients and returning them to the soil.



## Ladybirds –natural born killers

They are fierce predators of aphids, so should also be a welcome resident in your garden. Don't tidy up too much in autumn. Leave hollow-stemmed plants over winter as shelter for hibernating ladybirds.

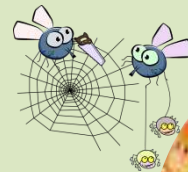


## Earthworms

They are vital to healthy soil, benefiting crop yields and healthy plants. As they move up and down through the soil, earthworms aerate the soil and create channels that allow more efficient drainage and irrigation. This also prevents soil surface run off, prevents flooding and means less watering is needed. They also perform waste disposal in the garden, removing surface debris and fungal spores.



Did you know that ants are responsible for planting one third of the world's seeds!

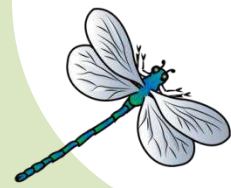


## Natural pest control

Many organisms in your garden, including wasps, lacewings, beetles, spiders and centipedes are natural pest controllers- as well as being a food source for birds and mammals.



# Few more ideas for preserving biodiversity



## Plant wildflowers

Could you plant more **wildflowers** and create a wildflower strip at the edge of you lawn? If you head over to this Eden Project website : <https://www.edenprojectcommunities.com/stuff-to-do/seed-wildflower-meadow>, You will find here plenty of ideas, instruction on how to plant them and also where you could get them for free!

## Create a nesting sites for the bees!

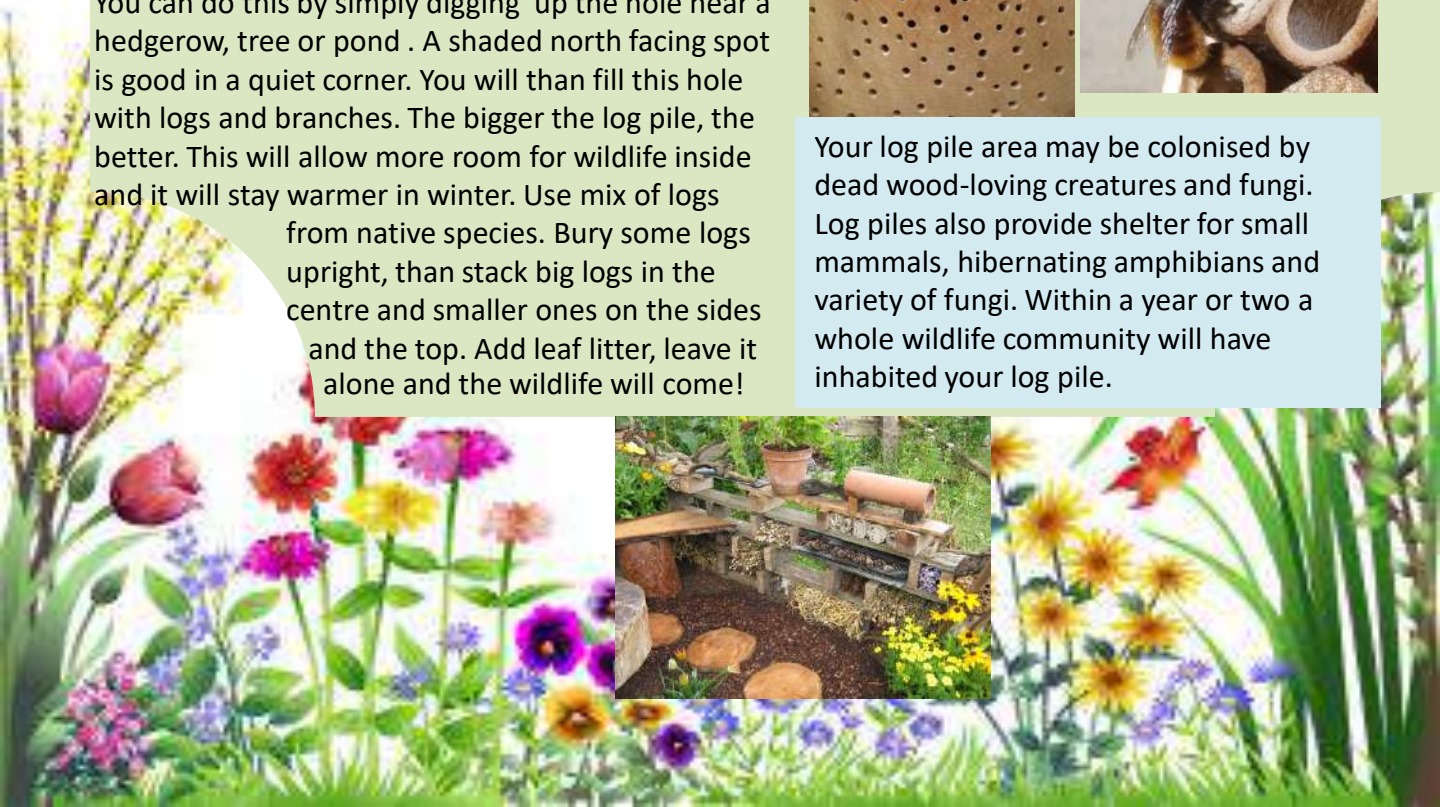
Our **bees** need these flowers to survive! “If the bee disappeared off the face of the earth then man would only have 4 years left to live. No more bees, no more pollination, no more plants, no more animals, no more man!” – Albert Einstein You can help them by creating a **nesting sites**. While bee hotels are popular, you will be helping many more species, with more success if you create a ‘bee bank’. Bare soil on a south or east facing bank is ideal nesting site for our mining solitary bees. You can easily create this by simply removing vegetation – and the bees will find it. Only small percentage of our cavity-nesting bees will use ‘bee hotels’. If you want to include some of these you can make your own by drilling holes in wood or using cardboard tubes. Just bear in mind that: Smaller is better-large bug hotels are more susceptible to predation and disease. Make sure you place it in a sunny, dry spot. Protect their nest sites – it is very important not to disturb them at any time of the year and more specifically while they are hibernating.

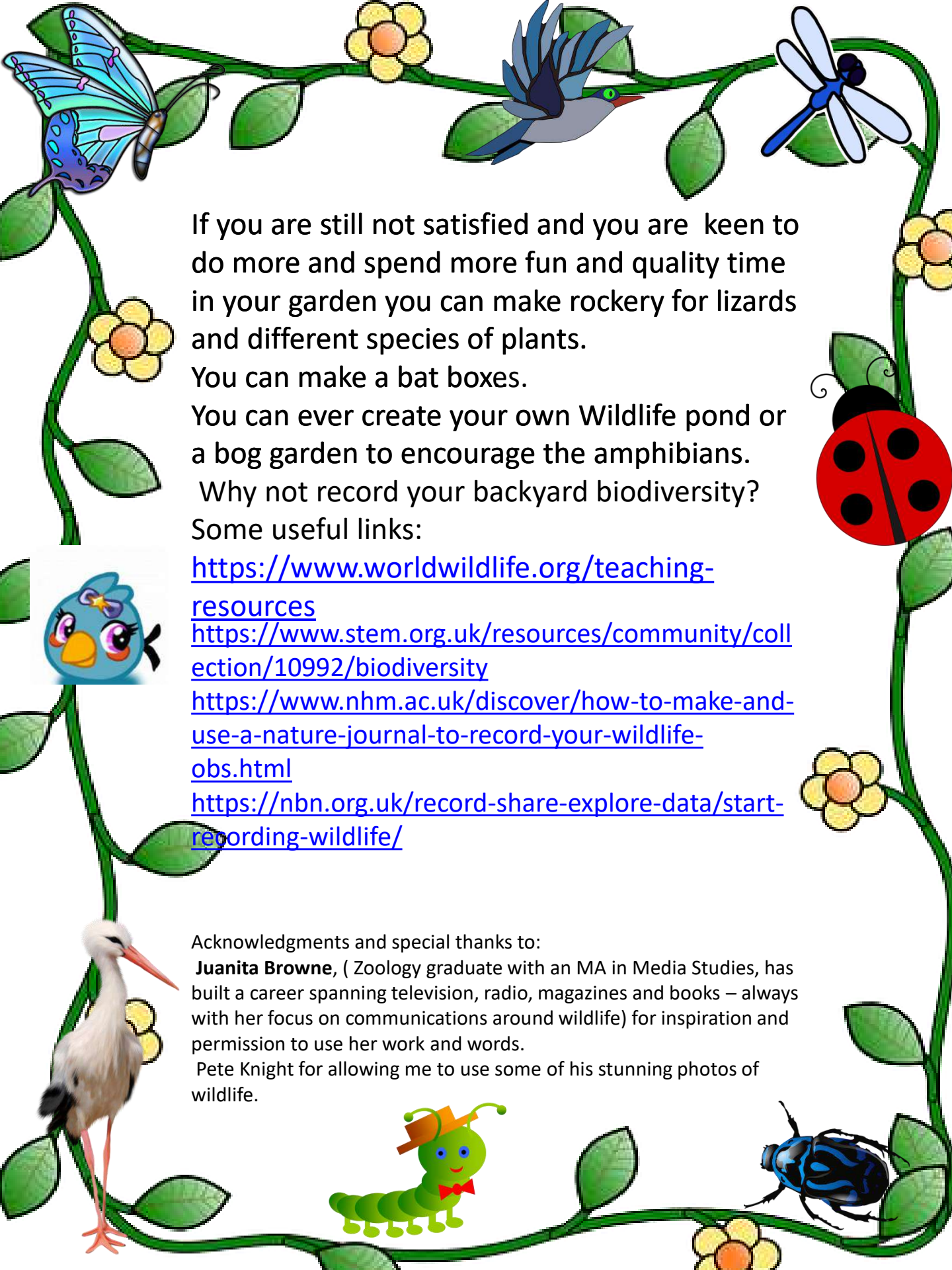
## Create a habitat for mini beasts

You can do this by simply digging up the hole near a hedgerow, tree or pond . A shaded north facing spot is good in a quiet corner. You will than fill this hole with logs and branches. The bigger the log pile, the better. This will allow more room for wildlife inside and it will stay warmer in winter. Use mix of logs from native species. Bury some logs upright, than stack big logs in the centre and smaller ones on the sides and the top. Add leaf litter, leave it alone and the wildlife will come!



Your log pile area may be colonised by dead wood-loving creatures and fungi. Log piles also provide shelter for small mammals, hibernating amphibians and variety of fungi. Within a year or two a whole wildlife community will have inhabited your log pile.





If you are still not satisfied and you are keen to do more and spend more fun and quality time in your garden you can make rockery for lizards and different species of plants.

You can make a bat boxes.

You can ever create your own Wildlife pond or a bog garden to encourage the amphibians.

Why not record your backyard biodiversity?

Some useful links:

<https://www.worldwildlife.org/teaching-resources>

<https://www.stem.org.uk/resources/community/collection/10992/biodiversity>

<https://www.nhm.ac.uk/discover/how-to-make-and-use-a-nature-journal-to-record-your-wildlife-obs.html>

<https://nbn.org.uk/record-share-explore-data/start-recording-wildlife/>

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