



## Wildlife in the Garden

### GARDENS ARE IMPORTANT

People usually think of a garden as an area to grow flowers, fruit and vegetables or perhaps as a pleasant place to sit, play or have a barbecue. Of course, a garden is there to be enjoyed by us, but there is no reason why we cannot share it with wildlife, which may need it as much as we do. Our wild animals and plants have been losing their natural homes over the years, as woodlands, hedgerows, fields, marshes and ponds have been destroyed to make way for roads, houses, factories etc. There are over a million acres of private gardens in Britain, not to mention the acres of land belonging to schools. Any garden, however small, and whether in the countryside or city, can be made into a nature reserve ? land where wildlife finds a suitable home. We cannot expect to turn our gardens into homes for endangered animals such as otters and ospreys, but we can help a huge variety of plants and animals ? remember that even common species could become rare some time in the future, especially if they have nowhere suitable to live.

Another important reason for having a garden full of wildlife is that it is so convenient ? we can study the natural world right outside our back door.

### GARDEN HABITATS

Some gardens look very neat and tidy with barely a fallen leaf in sight. A few creatures may venture into such a garden but they probably wouldn't stay for long. An informal garden with a variety of trees, shrubs, flowers and a corner of dead leaves and nettles will attract far more wildlife.

The best way to encourage wild animals is to provide suitable habitats for them ? places where they can feed, rest and produce their young. A garden for wildlife does not mean it has to be a scruffy wilderness. With careful planning a wildlife garden can be as beautiful as any formal one.

The variety of habitats you can create will, of course, depend on how big your garden is, but each is a valuable habitat in its own right. Here are a few examples:-

Trees??. Even a single tree in a garden will be important for wildlife but an even better habitat will be created if trees are grouped. The idea is to try and imitate a natural mature woodland ? once the major habitat in Britain ? with a difference in the height of the trees to form layers. Many plants and animals are most at home in the dappled shade of the woodland edge.

It is very important to choose native trees ? ones which originated in our country ? as many insects will only feed on these.

Once the trees are established you don't have to work hard! Leave the grass under the trees uncut; this adds to the lower layers and provides shelter for small creatures. Fallen dead leaves are excellent for mini-beasts and they are full of nutrients which are recycled by nature's decomposers. These are the bacteria and fungi, which gradually break down the leaves into tiny fragments that eventually form a rich soil. Worms and other mini-beasts also help with this decomposition. The decomposers get their energy by breaking down the materials of which dead plants and animals are made ? these remains form the humus content of the soil. This humus is broken down by bacteria in the soil into minerals such as nitrates. These dissolve in water in the soil and plants take them up through their roots. This constant recycling of dead material is a very important process.



Any fallen branches or dead trunks should be left undisturbed, unless they are dangerous. This dead timber is gradually broken down by decomposers and provides homes for a multitude of creatures. It is also a good idea to make a pile of logs in a corner of the garden ? an excellent habitat for wildlife.

Tree layer: e.g. oak, silver birch, etc.

Shrub layer: e.g. hawthorn, hazel

Herb layer: e.g. fern, bluebell

Ground layer: e.g. short grass, primrose

Grassland??. There are thousands of acres of regularly mown lawns in our gardens and parks. These can be a habitat for a few mini-beasts but if they were managed more thoughtfully, they would attract much more wildlife. Obviously, some area of the grass needs to be kept short to provide a place to sit on sunny days, but other parts could be allowed to grow tall. A patch of rough, uncut grass in a corner will attract several animals, providing them with food and shelter.

You may like to try creating a flowering meadow, full of either spring or summer flowers. It is exciting to try growing wild flowers from seed in pots and transplanting them into your meadow.

Remember that you must never spray grassland with chemicals; there are often used by gardeners to kill weeds ( a weed is just a wild flower growing in the wrong place) and encourage the growth of grass. However, these chemicals may also kill the animals we are trying to attract. Also, do not use fertiliser on meadows since these cause the tougher grasses to grow and the more delicate flowers to disappear. Meadow flowers flourish only in poor soils.

Ponds and marshlands??. Water is essential for life so it is obviously important to have some available in your garden for wildlife. A simple dish of water for birds to drink from and bathe in is useful, but if you can create a pond then the amount and variety of wildlife will increase dramatically. Our once common wetlands have been steadily destroyed over the years ? ponds and ditches have been filled in, marshes drained and they have all suffered pollution. Over 80 per cent of all ponds are now in private gardens. The common frog would be almost extinct by now if it had not managed to find a refuge in our garden ponds, and many other animals rely on ponds for their survival. Creating a pond in your garden is a sure way of helping wildlife and it is one of the most enjoyable habitats to study.



A pond should be as large as space allows, but even a small one is better than nothing. There are many useful books and leaflets available to help you make and look after a pond.

Instead of, or as well as a pond, an area of marshy land could be created by sinking a pond liner a few inches down into the soil. Wild marsh-loving plants growing there will attract many species of animals.



Flower beds ??.. The size of your garden will limit the number and variety of animals living in it, but there are ways to enrich the habitat by adding things to attract passing wildlife. A pond is a good way of attracting visiting birds and mammals, such as hedgehogs, bats and foxes, but planting a flower bed or border is another excellent attraction. Butterflies, other insects and birds will really appreciate the supply of nectar, pollen and seeds.

Wild flowers grown in colourful groups are a very important source of food but there are several cultivated garden flowers and shrubs, e.g. buddleia, snapdragons, ice plants, marigolds, that are just as good. Choose the varieties carefully so that there are some in bloom throughout the year, ensuring a constant supply of natural food. A beautiful ?butterfly garden? is a sight for us to enjoy too!

Remember you will have to grow wild flowers from seed ? it is illegal to dig up wild flowers from their natural habitat. You can buy the seeds from garden merchants or collect the more common local ones yourself.

Hedges and walls ??.. A hedge is a row of trees and shrubs, usually used as a boundary or a screen around a field or garden. Even a short hedge is a good wildlife habitat, providing animals with food, shelter and a place to nest. Always choose native plants, e.g. hazel, hawthorn, blackthorn, holly, dog rose. Make it as dense as possible and encourage grasses and wild flowers to grow at the base ? this allows animals to hide in the lower layer, sheltered beneath the upper layers of the hedge.

A wall is another type of barrier often found in the garden. It can be quite a good wildlife habitat if creeping plants, such as ivy and virginia creeper, are planted at the base. These will quickly spread, attracting some animals. Cracks and crevices in between the stones or bricks will soon be colonised by algae, mosses, lichens and ferns.

Waste ground and compost heaps??. What may be seen as 'waste' ground to us can actually be a useful nature reserve for wildlife. Try to keep one corner of your garden undisturbed and see what animals turn up there! Dead leaves, logs, stones, wild flowers (?weeds?), including nettles, will all be used by something. Remember that waste does not mean a rubbish tip! Remove any litter that may accumulate there.

A compost heap in a garden is not only an excellent way of recycling organic waste, e.g. kitchen vegetable waste, grass cuttings, unwanted weeds etc, but the compost can be used to enrich the soil and the heap itself acts as an attractive habitat to some creatures. Using natural compost to put goodness back into the soil is a much better way of improving a soil than using chemical fertilisers. These can be harmful to wildlife and if they are used continually, eventually the quality of the soil becomes very poor.

The animals found in your garden are not always found in just one habitat; the animals often pass between several habitats. For example, a newt begins its life in the pond and then it leaves the water, crawling through sheltering plants and tall grass, finally finding a cool, damp spot beneath a rotting log to spend the winter. Therefore, it is important to provide a variety of habitats for your garden residents.

## ANIMALS IN THE GARDEN

Many different types of animals may be found in the garden. Each animal has particular characteristics which enable us to place it in a group. When classifying an animal you first have to decide whether it is a vertebrate (an animal with a backbone) or an invertebrate (an animal without a backbone). The invertebrates are by far the most numerous creatures in any habitat; these are the mini-beasts which include insects, worms, spiders, slugs, woodlice, centipedes and millipedes.

Vertebrate animals are divided into 5 main groups:-

Mammals warm-blooded with hair or fur. Young are fed on milk.

e.g. fox, hedgehog, mouse, squirrel.

Birds warm-blooded with feathers. Young hatch from eggs incubated by parents.

e.g. blackbird, robin, blue tit, tawny owl.

Reptiles cold-blooded with hard, scaly skin. Eggs laid on land. Live mainly on dry land.

e.g. grass snake, common lizard, slow worm.

Amphibians cold-blooded with soft, thin skin. Eggs laid in water. Adults can live on land or in water.

e.g. frog, toad, newt.

Fish cold-blooded with soft scales. Can only live in water. Breathe through gills.

e.g. stickleback



To which group do these animals belong? In which of the garden habitats would you find them living?

## THE GARDEN'S WEB OF LIFE

In a well-balanced garden the plants and animals are all interconnected. Green plants are essential for the life of all animals, either directly or indirectly. Some animals, known as herbivores, eat only plants. Herbivorous animals are in turn eaten by carnivores ? meat eaters. Carnivorous animals are often referred to as predators and the animals they eat as their prey. The prey animal is usually smaller than the predator. The sequence of feeding is known as a food chain.

Leaf -----> earthworm -----> blackbird -----> sparrowhawk

In reality, the feeding relationships within a habitat are much more complicated than a simple chain. The blackbird eats many types of invertebrates, not only earthworms, and the sparrowhawk preys on different

species of birds. Any living material may be part of many food chains and together the chains join to form a food web. Here is a simple food web involving plant material and a few animals you may find living in your garden:-



Notice that the sparrowhawk and the fox are not preyed upon ? they are known as top carnivores. When they die, however, their bodies will be eaten by invertebrates such as fly larvae and beetles, and the remains acted on by decomposers, the resulting nutrients being used by living parts.

A food pyramid is sometimes used to represent the overall picture of food chains within a habitat. A pyramid also gives an idea of the build-up in numbers of animals within the food chain. There are always more animals at the bottom of the chains than at the top. This is because these animals are small in size and a larger predator needs to eat many of them in order to survive. Here is an example of a garden food pyramid:-



## PESTICIDES AND THE FOOD CHAIN

Pesticides are chemicals designed to kill invertebrates, usually insects, which have become plant pests. Farmers and gardeners have been spraying their crops and flowers for years to protect them. Although effective they can have a disastrous effect on a habitat's food web. As well as the insect pests, useful invertebrates may also be killed. The small birds may eat the poisoned invertebrates and take a certain amount of poison into their own bodies. They may not be killed outright, but the poison may weaken them and their eggs may be infertile. At the top of the chain, the sparrowhawk may eat many poisoned birds and be affected in turn. In the 1960s, numbers of birds of prey in Britain began to decline drastically because of the use of pesticides called organochlorines. Fortunately, these pesticides were banned from use some years ago and since then populations of birds of prey have begun to recover.

Chemicals upset the balance of life in a habitat and a gardener who cares for wildlife does not use them. Even if you grow vegetables in your garden, the pest which attack these can be kept fairly well under control by the many predators you have encouraged into the garden habitats. For example, slugs and snails are

eaten by hedgehogs and song thrushes. If slimy molluscs are eating their way through your lettuces, it is very tempting to go out and buy a packet of slug pellets ? but if a hedgehog or thrush eats dozens of poisoned slugs and snails, the poison builds up and kills them. There are all sorts of ?green? ways to deal with unwanted pests, which do not affect the food chains. Organically grown vegetables are much safer for humans too!

## HELPING WILDLIFE IN YOUR AREA

By studying the different types of animals and plants in and around your garden, and learning how they relate to one another, you will develop a much better understanding of what they need to survive. Obviously, the most important thing is to provide the best possible habitats. Having done that, you can boost these habitats in several ways, such as putting up nest boxes for birds and bats, and offering food and water to birds and hedgehogs.

It is interesting to try and guess where many of the creatures that visit your garden, but don't actually live in it, come from. Perhaps from some local derelict, long-unused areas, present in most towns. These ?wildlife oases? are often under threat from misguided people who consider them as waste land and in need of being tidied up. Certainly any dangerous litter should be removed from such sites but they are, in the main, real paradises for nature.

In many areas there are groups, often formed by the County Wildlife Trusts, which study local wild spaces and keep in touch with local authorities, aiming to prevent possible destruction of these wildlife sites. They also offer advice to councils, perhaps pointing out that it is not a good idea to spray all the nettles and long grass in the area, and that the park need not be such a closely-mown ?green desert?. Sometimes local schools become involved with these groups.

Helping your local wildlife really begins with you in your garden. Keeping a watchful eye on the welfare of your own nature reserve is not only an exciting project but also a real contribution to nature conservation.

If you are interested in finding out more about gardening for wildlife, you may like to read:-

Muck and Magic - published by the Henry Doubleday Research Association, National Centre for Organic Gardening, Ryton-on-Dunsmore, Coventry, CV8 3LG.

How to Make a Wildlife Garden - Chris Baines, Elm Tree Books.

And write to:-

Wildlife Watch, The Kiln, Waterside, Mather Road, Newark, Notts, NG24 1WT (Junior section of the Wildlife Trusts).

Young Ornithologists Club, The Lodge, Sandy, Bedfordshire, SG19 2DL. (Junior section of the RSPB).

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