Conservation Education

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Wildlife in the City

The world's urban habitats – the towns and cities - have been around for centuries. The first towns were formed about 9,000 years ago, and since then they have continued to grow in number and size.

They are found on every continent except Antarctica and their creation has provided homes and places of work for millions of people.

Our towns and cities are not, of course, thought of as a natural habitat such as a forest or an ocean, and most of them have been built with only humans in mind. All the same, since they have been around for such a long time, it's no surprise that a number of plants and animals have made urban habitats their home too! In fact, as humans have spread around the world, travelling by road, railway and over seas, several species have travelled with them. Some of these 'hitch-hikers' have been unwanted passengers, taking advantage of the food and warmth of human homes – pests, such as rats, mice, moths, and cockroaches, which can spoil food and spread diseases.

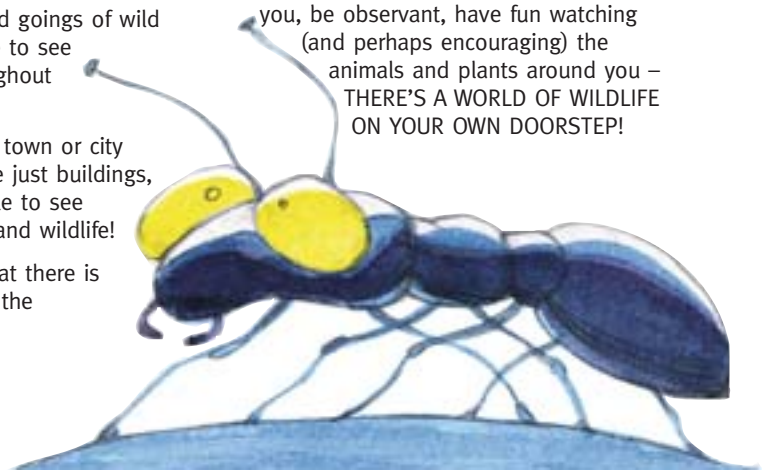
However, not all our urban 'neighbours' are pests by any means. Indeed most are welcomed as their presence helps to keep us in touch with nature. It's fun to watch the comings and goings of wild animals and enjoyable to see plants changing throughout the seasons.

Imagine how boring a town or city would be if there were just buildings, roads and other people to see and no green spaces and wildlife!

We usually imagine that there is much more wildlife in the countryside than in the town, but this is not always true. For example, farmland sprayed with chemical pesticides is likely to be far less rich in wildlife than a city park or garden filled with trees and other plants. Some animals find more food in the city than in their natural habitat. This is why the city pigeon (descended from the cliff-nesting wild rock dove) is so much at home in cities and towns all over the world.

As human habitats have replaced wild habitats, such as woodlands, over the years, several species have adapted surprisingly well to urban life – and even seem to prefer it! We now recognise that our urban areas have become valuable habitats for a lot of wildlife, and new towns and cities are planned to actually encourage wildlife.

If you live in a town or city – and most people do – don't think you have to travel miles out into the countryside to see wildlife. Of course, the countryside is a great place to visit, but look around you, be observant, have fun watching (and perhaps encouraging) the animals and plants around you – THERE'S A WORLD OF WILDLIFE ON YOUR OWN DOORSTEP!

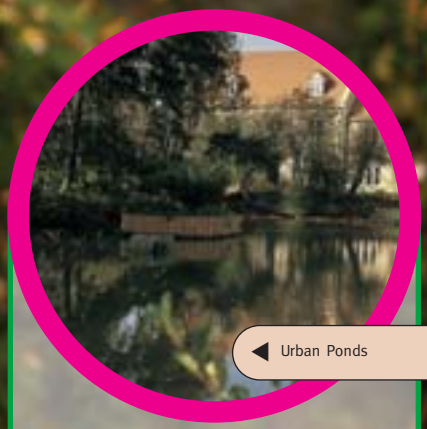


A habitat is defined as 'a place where animals and plants live' and they can only live in a place that contains water, gases (in particular oxygen and carbon dioxide) and some solid material like soil, rocks and stones. Every species of plant and animal must adapt to the conditions of their habitat if they are going to survive.

Urban Habitats

City Canals

Churchyards



Urban Ponds

If living organisms (the plants and animals, including ourselves) are going to stay in a particular place, they need to be able to find food there, as well as shelter to rest and reproduce.
A successful habitat has a community of plants and animals made up of a large number of species and they all depend on one another for their survival. Plants make their own food by using the energy from the sun, but animals get their energy by feeding on plants or other animals.

All the above 'rules' apply to an urban habitat as much as to any wild one. The average city or town is actually made up of not just one type of habitat but a variety of quite different ones. They could be referred to as 'mini-habitats'. Until around one hundred years ago, cities and towns were generally like isolated islands surrounded by countryside, but gradually they have grown until many of them now merge into one another. This has created additional habitats for some species. Generally, the biggest variety of wildlife can be found on the outer edges of cities where there are more gardens and open green spaces. However, a surprisingly high number of species of wildlife can be found in pockets of woodland and parks close to city centres.

Here are examples of the mini-habitats that may be found within an urban area:

- **BUILDINGS**
- **ROADS**
- **PAVEMENTS**
- **RUBBISH TIPS**
- **DOCKLANDS**
- **CHURCHYARDS**
- **WASTELAND**
- **GARDENS**
- **PARKS**
- **SPORTS FIELDS**
- **RAILWAY EMBANKMENTS**
- **RIVERS**
- **CANALS**
- **LAKES**
- **PONDS**

What a variety! Let's take a brief look at the ecology (the relationship between the living organisms and their surroundings) of just a few urban habitats.

Cliffs in the City

Did You Know?

CITY PREDATOR...

1. The fast-flying peregrine falcon, a bird usually associated with mountain and cliff wilderness, is now making its home in some cities.
2. Keeping a lookout from tall buildings, it swoops down on flying pigeons and other birds at speeds of up to 180mph!
3. The powerful blow from the peregrine's strike breaks the back or neck of the unfortunate prey.

◀ Herring Gull

To our eyes a multi-storey building or an industrial factory in the middle of a city may look ugly and uninviting, but to some species of bird these structures provide much the same nest sites and places to rest as their natural habitat of rocky cliffs and caves.

For example, the herring gull, which normally nests on grassy cliff-tops or cliff ledges, now often nests on the flat rooftops in several towns and cities around the world. The gulls find most of their food on large rubbish dumps. There are now so many of these noisy gulls in some towns that they are becoming a pest - even attacking people near their nesting places!

Birds of prey are also adapting to city life. The kestrel and peregrine falcon nest on narrow ledges of tall buildings, hunting birds such as the pigeon, starling and house sparrow. The smaller birds like to nest in holes, finding plenty of spaces in the roofs of all sorts of buildings. The European starling has adapted extremely successfully to city life. This bird's natural habitat is woodland edge and tall trees, but it can find food in gardens, fields and city parks. Huge flocks of starlings spend the night roosting in street trees and on building ledges, where it is less windy and warmer than out in the countryside.

◀ Peregrine Falcon

In and around The House

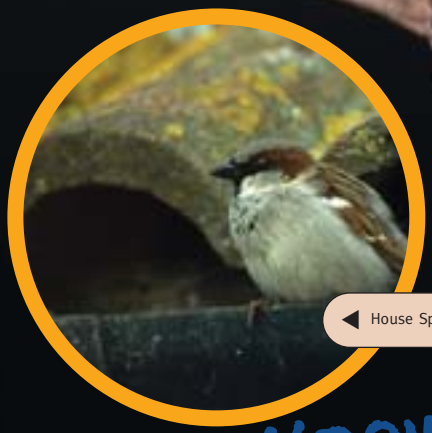
The outer edges of cities – the suburbs – suit those animals that can use houses as places to nest (replacement for caves and cliffs) and the surrounding gardens and parks to find food (replacement for woodland edge).

Two birds that have long been associated with our homes are the house sparrow and the house martin. The house sparrow, a seed-eater, makes nests of dry grass under roof tiles and eaves. The insect-eating house martin is a migratory bird and visits Europe in the summer to breed. It has become dependent upon house walls to build its nests of mud under the overhanging eaves. Its close cousins, the swift and swallow, also use our buildings for their nests.

Another insect-eating animal that may be seen in the suburbs is the bat, particularly the smallest and most common species known as the pipistrelle. It often uses house lofts for roosting and breeding, flying out in the evening to hunt insects over stretches of water, parks and gardens.

If bats have made their home in your house there's no need to worry for they do no harm (and are protected by law) – but a few home-visitors may not be so welcome! Brown rats, house mice, house flies, cockroaches, clothes moths and house dust mites are just a few animals which have taken advantage of the warmth and food in our homes over the years. Birds of prey, foxes and cats do eat some of the rats and mice, and spiders deal with a few flies but there are not enough predators around to keep these creatures under control and they have become serious 'pests', eating our food and spreading diseases.

House Martin



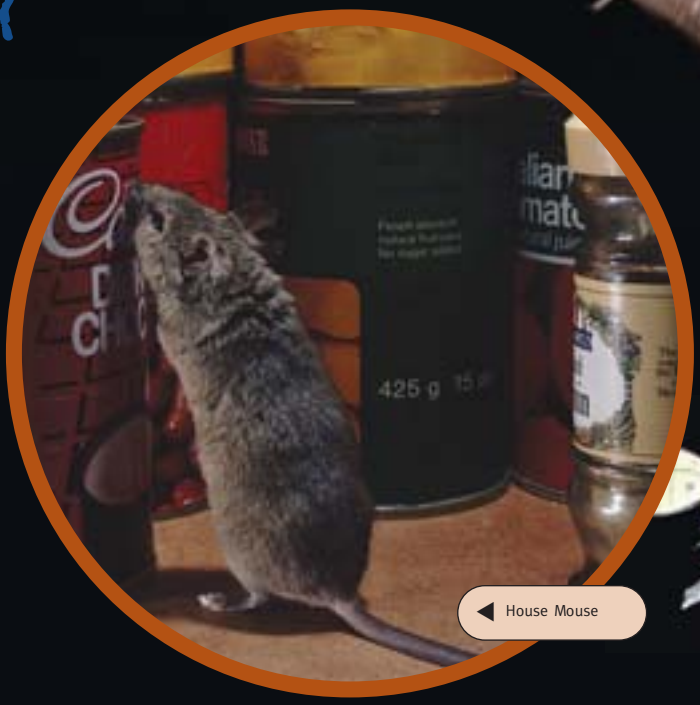
House Sparrow

Pipistrelle Bat

Did You Know?

UNWELCOME VISITOR!

Originally from Asia, the house mouse has colonised huge areas of the world since prehistoric times and is well-adapted for living in a man-made habitat. It will eat almost anything and rarely drinks. Human homes provide plenty of food, and warm places for nesting. A mother mouse can produce up to 50 babies in a year! Unfortunately, it is very smelly and taints the buildings it lives in with droppings and urine. As well as damaging food, the house mouse also carries diseases and causes damage by gnawing.



House Mouse

On The Wall

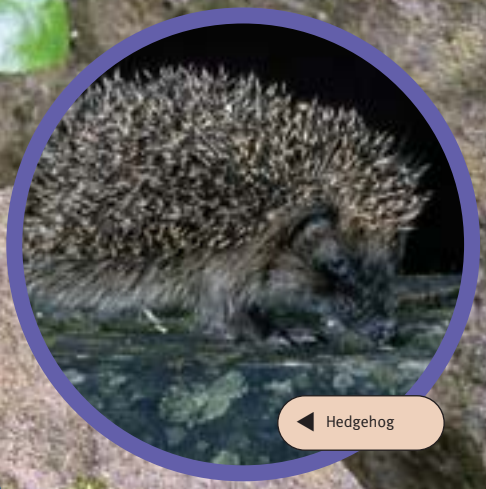
Old cities were surrounded with walls, some of which are still standing in parts; walls often border parks and gardens. Wherever you live you can probably find a wall not far away - have a good close look at it.

If it has been around for several years you will be amazed at the amount of wildlife that has colonised it. As a newly built wall ages, the brick or stone is gradually eroded (worn away) by the weather and little cracks and crevices appear. Mosses and lichens are usually the first plants to grow on a wall, clinging on in patches. Nowadays they may even be found in industrial city centres whereas when our cities were highly polluted with smoke and gas fumes, they could not grow at all. The cleaner the air, the more mosses and lichens you will find.

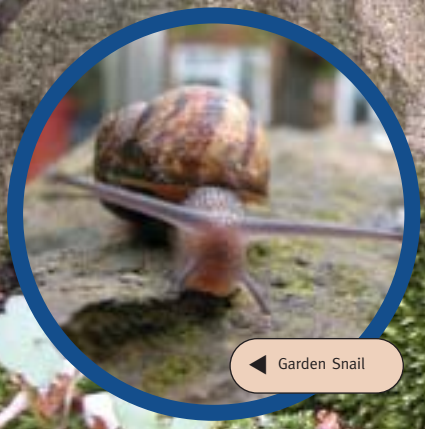
Walls are rather like sheer rocky habitats and therefore you would expect to find similar species of plant growing in both places. The type of plant that is growing there also depends on the type of rock that the wall is made of. Limestone walls attract plants that need a supply of calcium and in the wild would be found growing on chalky soils.

Once cracks have appeared in a wall, the seeds of 'annual' plants like shepherd's purse and groundsel may be blown into them by the wind and they quickly germinate, flower, produce seeds and then die, all within one summer. Eventually, old walls that have not been interfered with by humans support a thriving colony of permanent plants such as ferns and fleshy-leaved plants like the stonecrops. All these plants are specially adapted to be able to withstand very dry conditions. A few ancient walls even have shrubs and trees growing on them and may be covered in grasses, honeysuckle and ivy.

When the plants have become established, animals soon turn up, finding food and shelter amongst them. If you carefully peer into the crevices in an old wall you will most likely find all sorts of invertebrates (minibeasts) hiding there. Insects will attract spiders and birds to hunt in and around the wall and shrews and hedgehogs will search for slugs, snails and beetles. If the crevices become large enough, they will provide nest sites for the predators. Look for holes at the bottom of the wall that may lead into the homes of mice and voles.

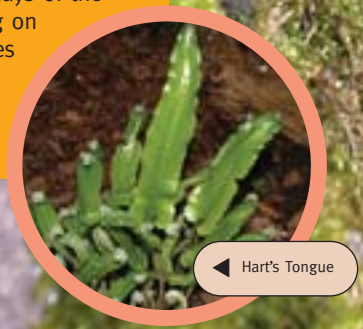


◀ Hedgehog



◀ Garden Snail

Lichen ▶



◀ Hart's Tongue

Did You Know?

WALL CLINGERS!

Some ferns, like this hart's tongue, easily establish themselves on old walls, even in polluted city air. They could be found back in the days of the steam train, thriving on sooty railway bridges and even growing in the cracks of chimney stacks!

Roadway Safaris

Our city roads, pavements, dual carriageways, motorways and railway lines – routes of communication for people – are not the first places you would think of as suitable habitats for wildlife! But roadside verges, especially those of motorways and railway embankments, can be rich in many species of plants and animals as people hardly ever visit them and they remain undisturbed.

Roadside Verges

Most of the thousands of acres of verges are covered in unmown grassland, ideal for small mammals like mice and voles. These herbivores (plant eaters) are hunted by the kestrel which is often seen hovering alongside busy roads.

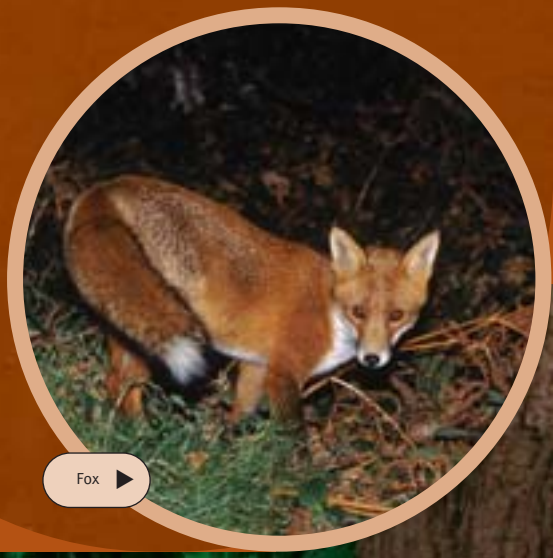
Trees and shrubs have been planted on verges too, which provide nesting sites for birds and extra sources of food. Many animals use the verges as their own roadways so they can move between town and countryside. The animals accidentally carry seeds with them as they travel, perhaps on their feet or in their fur, and this helps to establish even more species of plants.

Unfortunately, roads can be dangerous places for animals living nearby and thousands of invertebrates, birds, reptiles, amphibians and mammals are killed by cars every year. The corpses provide food for many scavengers, ranging from ants that feast on any dead insects and crows, which dine on the larger casualties.

Of course it would be unwise for us to actually walk along the edge of a busy main road, searching for wildlife, but quite a lot can be seen from the window of a bus or car. Make a note of the main type of plants growing on the verges and watch out for any animal life, both dead and alive! If travelling by train, you will be able to watch out for more wildlife.

Some of Britain's railway embankments have been in existence for over one hundred years and as they are also mainly undisturbed, hundreds of species, including rare plants, have established themselves there. Animals use embankments like the road verges, for travelling into built-up areas. This is probably the reason why foxes have been spotted in the most unlikely places, such as around Waterloo Station in London!

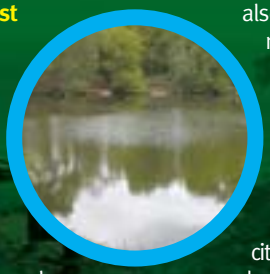
Kestrel



Fox

Popular Parks

As far back as Victorian times it was realised that people who lived and worked in busy, dirty cities needed to be able to find a green space where they could relax and enjoy seeing trees, flowers and birds, without having to travel out into the countryside. Every major town and city has at least one public park. In London alone there are 5,000 acres of historic parkland!



Most municipal parks (those in towns and cities run by a governing body, like a council) were created during the Victorian era. Many new parks were set out in a very formal way, just like the gardens belonging to rich Victorians, with foreign trees and shrubs, borders of annual bedding plants, short grass, ornamental pools and statues. All very pretty but a poor habitat for wildlife!

Fortunately, most people today prefer more natural looking parks and many are now managed in a way that encourages wildlife. Delaying mowing the grass until early summer allows wild plants to flower and set seed. The plants provide food for nectar and seed eating animals. Less intensive management also saves money! A more natural looking pond or lake also provides a home for animals such as frogs, toads, newts and dragonflies.

Parks are also important in helping to control pollution in cities. The expanses of grass, trees and water absorb car fumes, dust and smoke. They help to deaden noise too.

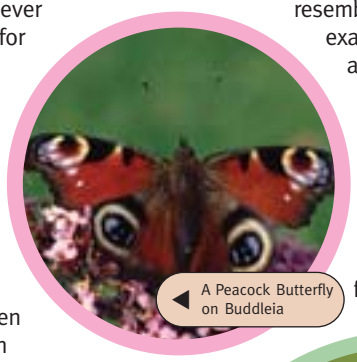
Next time you take a stroll around your local park, as well as admiring the trees and other plants for their beauty, try to identify them and see how many wild species you can find. Keep an eye open for visiting insects and any other animal life.

Garden Nature Reserves

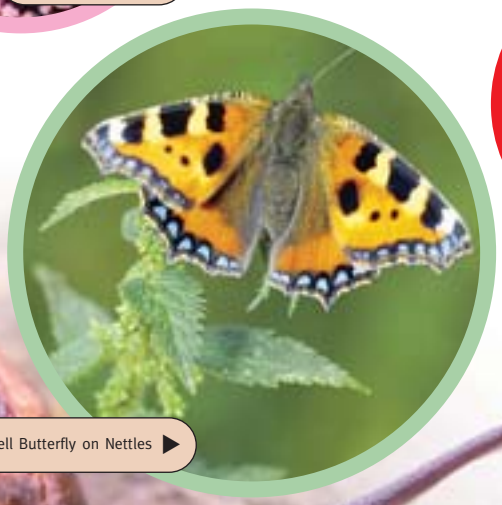
Most houses in Britain have gardens. In fact there are over one million acres of garden in total – an area larger than all the nature reserves put together!

Even city gardens, however small, can be a haven for wildlife. It all depends on how the gardens' owners care for them. If they are too neat and tidy, like the old Victorian-style parks, then wildlife will not make their home there. On the other hand, a garden does not have to be an untidy wilderness in order to attract animals. With a little thought, gardens can be for both people and wildlife.

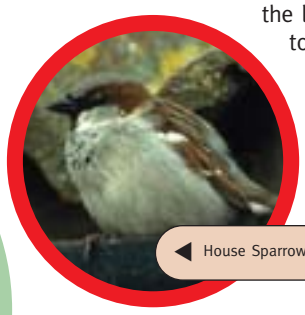
The gardens with the richest diversity (variety) of life are those with a mixture of habitats, resembling those in the wild. For example, lawns are grassland areas, hedges and bushy plants are shrub woodland and tall trees are woodland edge. A pond is a valuable additional habitat, providing water for all garden visitors and a home for amphibians and freshwater minibeasts.



A Peacock Butterfly on Buddleia



A Tortoiseshell Butterfly on Nettles



House Sparrow

The plants in the garden will attract a variety of minibeasts – some of them may not be very welcome if they eat the gardener's favourite plants! But any pests, like slugs, snails and aphids will attract their predators – ladybirds, ground beetles, spiders, birds and hedgehogs. A wildlife gardener will encourage the predators and not resort to using chemicals, which can be very harmful to the useful animals.

The garden habitat can be enriched with 'extras' such as logpiles, nectar-rich plants like buddleia ('butterfly bush') and lavender, nest-boxes and food for birds. Perhaps let a patch of lawn be left unmown so that the grass grows longer and wild flowers could be planted amongst it to form a colourful meadow, which would attract a host of wildlife.

If room allows, it's a good idea to let a corner of the garden be left almost untouched so that wild plants can grow and provide food and shelter for animals. If we find a wild plant growing in the garden we usually call it a 'weed', but remember that 'weeds' are only wild plants growing in a place that we don't want them to! A patch of stinging nettles can be a nuisance to us, but they are the food plant of several species of butterfly, such as the peacock and small tortoiseshell. Ladybirds like to lay their eggs on nettles too, as the larvae find aphids to hunt amongst the leaves. A patch of nettles will be much appreciated by wildlife!

Garden Snail

Did You Know?

SPARROW ALERT!

The chirpy house sparrow was once very common in the UK, especially in London, but over the past few years its numbers have been decreasing – and no-one is sure exactly why. It may be a shortage of food and perhaps nesting sites. Newly built houses don't have as many nooks and crannies as older ones for the birds to make nests in. You can help by putting up specially made nest boxes under the eaves of your house.

Nature News

Why not try one of our great Environmental Discovery Courses in 2004-5?

The Environmental Discovery Courses run by the Young People's Trust can give young children an insight into the living world. They may not cost as much as you think either!

Now that the Summer Term is well underway, start drawing up your plans to get your class out into the open air in the next school year. An Environmental Discovery Course run by the Young People's Trust could be the ideal way to do it.

The Courses last a week, and are available in the beautiful surroundings of the south of England, or in the spectacular scenery of the Lake District.

We've been hosting these courses for over 20 years and we know how to make them safe, secure and exciting too. Whichever location you choose, you'll be guaranteed a learning experience that will last a lifetime.

Prices are very reasonable, especially out of high season, and they can provide a focus for some excellent preparation and follow up work in the classroom, as well as giving everyone going on the trip something to look forward to during the dark days of winter.

We're fully booked until June 2004, but you can book from September 2004 through to June 2005. For more details of pricing and availability throughout the year, contact us on 01483 539600, or check our web site: www.yptenc.org.uk

Free School Talks

Would your pupils benefit from a talk given by one of our expert speakers?

Are the children in your school interested in the environment? Do they know about global warming or British wild animals? Are they curious about endangered animals or wildlife in the garden?

Call us

Maybe it's time to invite an expert from the Young People's Trust along to your school to give one of their informative, interesting and fun school talks. They are free of charge to any school in the catchment area - which is within a 100 mile radius of our two offices; one in Guildford, Surrey, and the other in Penrith in Cumbria. But even if you are outside that area, why not get in touch with us anyway; there's often something we can do to help.

Designed for you

We're happy to take on topics like the ones we've mentioned above, but we can tackle many others or a particular issue your school is interested in, or one with a link to required teaching subjects. We will tailor our talks to your requirements. All you have to do is ask!

Our goal at the Young People's Trust is to bring the environment and its importance to life, and our popular school talks are really effective in helping to encourage understanding and interest.

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