FACTSHEET

Britain's Disappearing Habitats

Disappearing habitats in Britain.

A habitat is any area where plants and animals can live undisturbed. The word ?habitat? comes from a Greek word meaning ?home?. Even a city is a habitat with wildlife making its home alongside human beings, in and around buildings, but usually we think of wild areas when we speak of habitats.

World-wide there are many wild habitats in danger of disappearing ? the tropical rainforest to name just one. If a habitat becomes endangered then it follows that the animals and plants living in it become endangered also.

Wild places everywhere are under pressure from human beings. Why is this? Quite simply, there are just too many of us!

There are over 6.5 billion people in the world today ? about 6 billion more than there were 300 years ago! Here in Britain our population is nearly 60 million.

An ever-increasing population needs housing, clean water, a supply of food and industry to supply the people?s needs. All this development requires space ? and wild habitats are destroyed in the process.

Britain in the Past

Our countryside today is almost all man-made. For about 7000 years, following the end of the last Ice Age, nearly the whole of Britain was covered with forest mostly consisting of broad-leaved trees, oak and elm being the most common species. Then, about 5,000 years ago, the Neolithic people in Britain began to clear the forests for cultivation and permanent settlements. These people used flint axes for cutting down trees which they used for fuel and the land was cultivated.

In 500 BC the Celts arrived with their more advanced technologies began to create fields for crops and meadows for cattle. The Celts and Romans mainly concentrated on cultivating light soils, chalk and limestones, on higher ground and they put sheep and cattle on these downlands preventing them from reverting to woodland.

The Anglo-Saxons, using eight-ox ploughs to turn heavy clay soil, cleared many valleys and much of the farmland of the high ground was abandoned. Beech woodland took over in many places but elsewhere sheep continued to graze, keeping the land clear of trees. This is how the chalk and limestone grasslands were formed. Today they are considered a disappearing habitat, home to several endangered species of flowers.

Most of the remaining forest disappeared during the 16th and 17th centuries to provide timber for boats or charcoal for the iron industry. During this century, even more of our woodlands have been cleared and very few of the scattered woodlands date back to prehistoric times. Most have been replanted at some stage and are poorly managed. Some of the most successful broad-leaved woodlands today are those managed by private estates and pheasant reserves. Another type of ancient British woodland can be found in the highlands of Scotland ? the Caledonian pine forests, made up mainly of coniferous Scots Pine Trees.

Man-Made Habitats

We have already mentioned that most of our British countryside today is man-made, much of it consists of a landscape of fields and scattered small woodlands joined together with hedges or wire fences. This farmland

is the most man-made part of the countryside but even though it cannot be called truly wild habitat, it is still one of the most important habitats in Britain for wildlife ? especially if hedges and trees grow around the fields.

Fields, hedges, the chalk downlands and the heathlands of Britain only exist because they have been created and managed by people. If left to themselves they would eventually revert to woodlands. If you stopped cultivating your garden it would soon be taken over by small shrubs like bramble; this scrubland would be replaced by fast growing trees such as ash and sycamore. Finally, beech and oak trees would dominate. These changes in plant life in a habitat are called succession and if left alone by humans, it continues until a climax is reached. Oak woodland is the commonest climax vegetation in Britain.

Fresh water habitats in Britain may be ponds, lakes, reservoirs, streams and rivers. Most of them have been either made or changed in some way by humans. Today a pond is regarded as an endangered habitat. For centuries the pond was a necessary part of the British landscape. Nearly every village and farm had a pond and it provided water for both people and farm animals. Nowadays we don?t need ponds for water and most of the old ones, being man-made, have become overgrown with plants, built over or polluted. Over 80% of all ponds in this country are in private gardens or school grounds ? they are n essential habitat for many species of animals and plants, including the increasingly rare amphibians ? the frogs, toads and newts.

Every habitat has its own particular set of plant and animal species. Together the different species make up a community and they all depend on each other in some way.

We will now examine in some detail just one of Britain?s disappearing habitats?..

Hedges

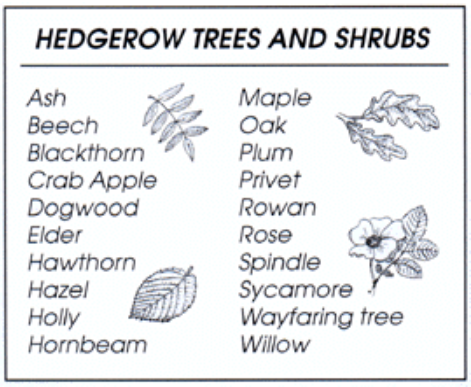
What is a hedge?

A hedge is a man-made boundary made up of growing plants ? a line of thick, woody bushes which do not die down in winter. Countryside hedges around fields usually consist of many different types of plants, but in parks and gardens they may be of one species only. Today hedges act as fences for keeping animals either in or out, or as boundaries and screens, dividing fields or gardens.

History of Hedges

The Anglo-Saxon word for enclosure was ?haeg? or gehaeg? and this is were we get the word ?hedge?. It is believed that the Romans may have first planted hedges in Britain but most of the few ancient hedges date from Saxon times, making some of them 1000 years old. The Saxons organised ?strip farming? in which each community of people would have a field which was divided into strips separated by grass verges. Each strip was one furrow long (one furlong or 201 metres). People were given a number of strips to farm by the lord of the manor. This system changed in the late Middle Ages when landlords wanted to put boundaries around their property, so they enclosed their land with walls or hedges. Enclosure Acts in the 18th and 19th centuries allowed farmers to put more hedges round their fields and most of Britain?s 300 000 miles or so of hedges date from this time.

Plants in a hedge.



The most common hedgerow plant is the hawthorn and thus has always been popular for countryside hedges because it has tough thorny branches and thick growth ? ideal for preventing cattle from escaping through them. Most hedgerow trees are deciduous (lose their leaves in autumn), except for holly. Some species have been planted deliberately but others have established themselves over the years. Twenty of the most common hedgerow trees and shrubs are listed in the table on the right.

Most hedges have a bank or strip of grassland underneath them where many other plants grow. Some are climbers such as bramble, honeysuckle and ivy.

Over 200 species of non-climbers grow in the hedgerows including ferns and flowering plants such as primroses, foxgloves, garlic mustard, red campion, herb rocket, stitchwort and cow parsley. The numbers and species depend on the age of the hedge, its location and how it is managed.

How can you tell the age of a hedge?

As we mentioned earlier, some hedges date back many hundreds of years. The only certain way of dating a hedge is to find reference to it in some historical records. Old maps and charters recording estate or parish boundaries may refer to hedges. Libraries and your local record office may be able to help with this information. You can roughly work out the date of any hedge by using a formula.

Here?s what to do:

1. Choose a 30 metre length of hedge.

2. Count the number of species of trees and shrubs you find in it.

3. Multiply the number of species by 100.

The answer is the approximate age of the hedge.

One new species establishes itself about every 100 years, so a hedge with 3 species is about 300 years old. Obviously you have to use a bit of common sense when using this formula. A recent hedge may have been planted with several species but the look of the hedge should give you an idea as to whether you have an old, established hedge or a more recent one.

Perhaps you have brought one of those attractive little sealskin purses or key rings - or other innocent items so often seen on sale. The seal is not an endangered species - and yet the buying of such souvenirs helps to keep the trade in sealskin products going.

Poachers will only be put out of business when the tourists refuse to buy their products, when people refuse to wear the skins of animals as an adornment and when people no longer buy ivory products.

So, while the poacher is a menace who needs to be put out of business - we have to admit that people like US make their horrible slaughter possible. So, it is the tourists who have as much blood on their hands as the poachers themselves.

Animals in a hedge

Many animals have adapted themselves to living in hedges, depending on each other and on the hedgerow plants. As the woodlands have decreased over the years, the animals in them have become more adapted for living in and around hedges. Almost all groups of animals may be found in a hedge, including mammals, birds, reptiles, amphibians and many invertebrates.

Food chains in the hedgerow community

Every living thing in a habitat is dependent on another for its survival. As in all habitats, many food chains exist in a hedgerow. Some chains are short, others are long, but they all start with a plant and end in a ?top? predator (an animal which hunts, kills and eats another animal ? ?top? predators are not usually eaten themselves). Here is an example of a food chain:

Each food chain has side-branches ? there are other birds which eat earthworms for example. Many food chains linked together make up a food web. If one of these links is broken e.g. the blackbirds disappear from the community, then the delicate balance of the hedgerow is upset.

Why are hedges disappearing?

During the past 45 years about a quarter of our hedgerows have been destroyed, at a rate of about 4,000 miles a year. This has happened mainly in the east of Britain in order to create large, prairie?like fields. Farmers have been removing hedges to make more room for crops and to enable machinery such as combine harvesters to move around the fields more easily. Also, hedges have to be cut and the growing plants in them use moisture and nutrients in the soil which could be used by the crops. All this is extra expense to the farmer. However, since 1972, when the Ministry of Agriculture stopped giving farmers a subsidy for uprooting hedges, the removal of hedges has slowed down, although many are still lost whenever countryside is taken over for building houses etc.

Why are hedges important?

Apart from acting as boundaries and keeping animals inside fields, the hedgerow is an important habitat for a wide variety of animal and plants. As the woodlands have been destroyed over the years, the wildlife in them has become adapted to living in the hedgerows. Animals such as foxes and badgers use hedges as ?roadways? for getting from one wood to another ? wild animals do not like crossing open fields.

If fields are unprotected by a barrier of hedges, the wind can erode (blow away) the valuable top soil ? this has proved a problem in East Anglia where large prairie-like fields have been created by removing hedges.

Dos and Don?ts of hedge maintenance

1. Cutting: a hedge has to be looked after if it is to be useful. The traditional craft of hedge laying is rarely seen these days mainly because it takes much longer than a mechanical hedge-cutter. Layering us the best method of maintaining a hedge ? the stringer stems are cut half way through then laid almost flat and other stems are twined around them. A well laid hedge grows thickly and only needs a little annual trimming for several years. If hedges are cut by machine it is best done every three years at the end of autumn, to give the

birds a chance to eat the berries and seeds. This also lets the hedgerow plants flower in the spring. Quite often, mechanically cut hedges are flat-topped and a boring shape. They are much more interesting and useful to wildlife if some of the saplings (young trees) are allowed to grow tall.

2. Spraying: If herbicides (weed-killers) or insecticides are sprayed onto hedges these may kill the plant and animal food on which birds and small mammals rely. In short, the effect is that the whole hedge is useless to wildlife. Unfortunately, this sometimes happens when farmers are spraying crops in their fields.

CONSERVATION OF HEDGES ? HOW CAN YOU HELP?

With so many pressures upon hedges from agriculture, housing development, road building, pollution etc., obviously some form of protection is needed to prevent too much further hedge destruction. However, when considering conservation of habitats we must be sensible and remember that we have to accept some changes in our environment. With an increasing human population a few wild habitats have to be destroyed to make room for more housing, crops, etc. This is no reason, however, to be thoughtless and we must think of conserving wild habitats and wildlife for future generations to enjoy. A hedge that has been around for hundreds of years is part of our heritage and should be conserved if at all possible. Here are a couple of ideas for helping hedges.

1. Look around your own area. Find a neglected hedge, perhaps in a garden, park or on a farm that seems to need some improvement. Perhaps it needs clipping, replanting in places, litter removed, etc. Ask the hedge owner if you can help, or perhaps take over responsibility for the hedge. You could form a group of ?hedge helpers? to assist you with the work. Also, keep an eye on other local hedges, particularly any of historical interest ? if you think such a hedge is about to be destroyed you may be able to stop this by contacting the Tree Officer at your District or county Council.

2. You can create a useful wildlife habitat by planting a hedge in your own garden or perhaps in your school grounds. A hedge is a much more interesting boundary or screen than a boring fence! Even a short hedge will be welcomed by all sorts of animals, especially of you plant a variety of hedgerow plants. Excellent hedge species include hazel, holly, hawthorn, blackthorn, dogrose and dogwood. These have colourful flowers and berries and attract many birds, insects and small mammals.

Don?t tidy up? the bottom of the hedge too much ? fallen leaves and long grass will provide shelter for animals. Many of our wildlflowers are disappearing from the countryside and it would add extra interest to your hedge if you planted some at the bottom of it. Never dig up wild flowers from the countryside but buy

seeds, sow them in pots and transfer the young plants to the hedge. With careful trimming, so that the hedge grows thickly, you will be providing an excellent wildlife habitat as well as a very interesting garden for yourself!

Ideas for hedge study

Adopt an interesting hedge. Identify the species of shrubs and trees in it. Estimate its age.

Try to study your hedge throughout the year making a note of all the plants that appear in every season.

Make a note of every animal that you find in the hedge. Which are living in it and which are just passing through or using it only for food? Make up some food chains or a food web for your hedgerow community.

Are there any ways in which you could improve your hedge to make it even more interesting for wildlife?