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Fresh Water Habitats	Parks, Golf Courses and Cemeteries
Gardens and Allotments	The Built Environment
Grassland	Trees, Scrub and Hedgerows

Species Action Plans

Bee Orchid	Linnet
Brimstone Butterfly	Mute Swan
Common Blue Butterfly	Pipistrelle bats
Common Lizard	Reed Bunting
Common Toad	Saltmarsh Snails
Cowslip	Skylark
Dragonflies	Song Thrush
Elm Trees	Spotted Flycatcher
Great Crested Newt	Tree Sparrow
Harvest Mouse	Wall Ferns
Hedgehog	Water Vole
House Martin	Yellow-wort
Lichens	

Appendix A - Legislation

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Hull Biodiversity Action Plan

The Hull Biodiversity Action Plan has been prepared by the Hull Biodiversity Partnership

- § Bransholme Green Enterprise Project
- § Butterfly Conservation (Yorkshire)
- § City of Hull Environment Forum
- § East Yorkshire Bat Group
- § East Yorkshire Birdwatchers
- § English Nature
- § Environment Agency
- § Friends of the Earth (Hull)
- § Hull and East Riding Organic Gardeners Association
- § Hull City Services
- § Hull Natural History Society
- § Hull Valley Wildlife Group
- § Kingston Environment Group
- § Kingston upon Hull City Council
- § North and East Yorkshire Ecological Data Centre
- § Royal Society for the Protection of Birds (Hull)
- § University of Hull
- § Yorkshire Wildlife Trust

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Cover Photographs

Mute Swan, Butterfly, Common Toad (Terry Jennings)

Bee Orchid, Cowslip (Peter Wakely, English Nature)

Trees in East Park, Beverley and Barmston Drain (Jon Capel)

Logo by Grant Cairns

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Hull Biodiversity Action Plan Summary

Hull Biodiversity Action Plan

INTRODUCTION

What is biodiversity?

Biodiversity describes the amazing richness and variety of life around us. It includes all species of plant, animals and other life forms, which amount to something between 5 and 30 million species globally. Biodiversity also covers the genetic variation within species and variation between ecosystems and habitats in which these species live. The term biodiversity does not just cover rare or endangered species but includes the wildlife familiar to us all in the places where we live and work.

Why do we need to conserve biodiversity?

Biodiversity affects our lives in so many ways that we often take it for granted. Natural habitats such as forests, heaths and wetlands are the Earth's life support system, cycling air, water and carbon, regulating climate and absorbing many of our poisons and wastes. Animals and plants provide our food and clothing, the houses we live in and the medicines we rely on. Wild animals and plants are beautiful and enrich our lives. Wild flowers in the hedgerow and birds in our gardens give us pleasure, and attractive green areas in towns and cities make them better places to live and work. However, we are losing our biodiversity at a frightening rate, and it is up to us all to do something about it.

THE BIODIVERSITY FRAMEWORK

The International Level

In response to concerns about loss of biodiversity expressed at the Rio Earth Summit in 1992, there has been much activity in 'biodiversity planning' across the globe. Over 150 governments, including the UK, signed a pledge (*Convention on Biological Diversity*) to take immediate action to halt the global loss of biodiversity. Many countries now have national Biodiversity Action Plans and are beginning the process of implementation.

The National Level

In the UK, *Biodiversity: the UK Action Plan* was produced in 1994 with an overall goal "to conserve and enhance biological diversity within the UK and contribute to the conservation of global biodiversity through all appropriate mechanisms". The UK Biodiversity Steering Group was set up to prepare a detailed plan of action to achieve these objectives. There are now 45 national Habitat Action Plans and 391 Species Action Plans.

The Hull Biodiversity Action Plan

The UK Biodiversity Steering Group recommended the production of Local Action Plans, which should have two main objectives – to reflect and help implement the national priorities identified in the UK Action Plans, and to identify and address local priorities and local distinctiveness. The Hull Biodiversity Action Plan shows how we in our local area can conserve our own biodiversity and contribute to improving biodiversity on a global scale. It also attempts to link up with the biodiversity plans of the wider Humber sub-Region. As one of the partners, it is the intention of Kingston upon Hull City Council to adopt the Hull Biodiversity Action Plan as formal Planning Policy Guidance and it is hoped that other organisations will also adopt and commit to this plan.

Local Agenda 21

Agenda 21 also originates in the Rio Earth Summit. It is a world-wide programme stimulating sustainable development. Sustainable development can be defined as "development that meets our needs today without compromising the ability of future generations to meet their needs". If this is to be achieved, Agenda 21 will rely primarily on local action (i.e. Local Agenda 21). A wide-ranging programme of action is needed by local authorities and local communities throughout the world to achieve a more sustainable



pattern of development in the 21st century. Biodiversity is one of the key strands identified in the Kingston upon Hull LA 21 Strategy.

THE PRODUCTION OF THE HULL BIODIVERSITY ACTION PLAN

Natureplan

'Natureplan' was published in 1995 as the first Nature Conservation Strategy for Hull. It is a non-statutory planning document that sets out the City Council's aims and intentions towards nature conservation, and identifies how the City Council will implement its duties to wildlife.

Natureplan introduced Hull's 'Green Network' (Map A). The built up areas of Hull are dissected by a strategic network of linear, semi-natural habitats including the River Hull, main drains and railway lines totalling over 70 kilometres in length. These features support a remarkable diversity of habitat types, plants and animals and form the basis of the Green Network. The Green Network links the strategic linear features with Sites of Nature Conservation Interest and key open spaces, forming a giant network. This has the potential to allow wildlife to move freely amongst urban green spaces and into and out of the City. The Green Network has been incorporated into 'CityPlan' (July 2000), the City's land use development plan.

Natureplan was reviewed in 1999 and a need for the production of a more comprehensive Plan for the habitats and species of Hull was identified. The Hull Biodiversity Action Plan aims to build on Natureplan and hopes to encourage some action towards improving the wildlife of our city.

The Hull Biodiversity Partnership

In 2000 a partnership of organisations and individuals was established, developed from the former Natureplan Partnership. Its aim was to develop a Biodiversity Action Plan for Hull. The Partnership has a very broad membership, ranging from large statutory organisations to small local interest groups. Over a period of two years the Partnership has worked to identify the important habitats in Hull and a range of species for which targeted action can be carried out.

Wider Partnership

The Action Plan has been produced after extensive consultation. Kingston upon Hull City Council (KuHCC) has facilitated its development, but the Action Plan should not be considered exclusive to any one organisation, nor can its full implementation be achieved by any one organisation. This document should therefore form the basis of activity for many different groups. The challenge is for everyone in the City to consider how they can play their part. We are inviting a wider partnership for interested people.

Selection of Habitats and Species

The partnership selected 8 habitats and 25 species to be included in the plan. Some of the species are of national priority, others are important in the local context or as indicators of the health of habitats.

Habitat Action Plans

Estuarine Habitats
Fresh Water Habitats
Gardens and Allotments
Grassland

Industrial Land
Parks, Golf Courses and Cemeteries
The Built Environment
Trees, Scrub and Hedgerows

Species Action Plans

Bee Orchid
Brimstone Butterfly
Common Blue Butterfly
Common Lizard
Common Toad
Cowslip

Dragonflies
Elm Trees
Great Crested Newt
Harvest Mouse
Hedgehog
House Martin



Lichens
Linnet
Mute Swan
Pipistrelle bats
Reed Bunting
Saltmarsh Snails
Skylark

Song Thrush
Spotted Flycatcher
Tree Sparrow
Wall Ferns
Water Vole
Yellow-wort

TIMESCALE FOR ACTION

The Plan includes targeted actions that partners have agreed to carry out. These actions are set on a number of timescales:

- § **Short-Term** targets should be achieved in the next two years.
- § **Medium-Term** targets should be achieved in the next five years.
- § **Long-Term** targets should be achieved within ten years.
- § **Ongoing** actions should begin straight away if they are not already happening and should continue until reviewed.

Each Habitat and Species Action Plan contains a '**What we can all do**' list of suggested actions that everyone could potentially carry out.

MONITORING AND REVIEW

Publishing a Biodiversity Action Plan is only the start. To result in real change the proposals must be implemented. It is intended that the Biodiversity Action Plan will be implemented over 10 years with a first review after 5 years. The Hull Biodiversity Partnership will continue to oversee and monitor the implementation of the Biodiversity Action Plan in partnership with everyone currently involved in the process and those who will become involved in the future.

The Hull Biodiversity Partnership will review the Species and Habitat Action Plans. Review will consist of measuring achievement of targets and identification of new targets. The Action Plan will be revised and updated in the light of the review results and any relevant changes in circumstances and/or additional information which becomes available during the review period.



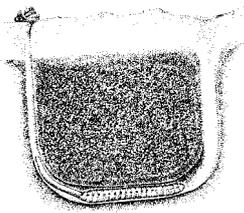
Estuarine Habitats

The Vision

§ To improve the nature conservation interest of the Estuary and its associated habitats.

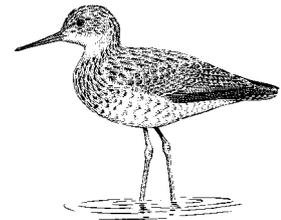
About the Habitat

The Humber Estuary makes up over 4% of Kingston upon Hull. The water and associated habitats, including mudflats, saltmarsh and reedbeds are particularly important. The Estuary itself is home to many species including Grey Seals and Lamprey, a primitive type of fish. Other fish such Flounder move up into the Estuary to feed, and it also provides important nurseries for North Sea fish populations, including Codling.



Over one third of the Humber Estuary is exposed as mud or sand flats at low-tide. These intertidal flats are of national and international importance for wildlife. Mudflats are attractive habitats for invertebrates such as burrow-dwelling worms and bivalves. The large numbers of these creatures support fish and are winter food for wading birds from both Britain and Europe, including Dunlin, Redshank and Ringed Plover.

Saltmarsh occurs on sheltered parts of the Estuary. It can be thought of as a transitional habitat between fully marine and terrestrial conditions. Saltmarsh vegetation consists of a limited number of salt-loving species that are adapted to regular immersion by the tides. Saltmarsh habitats are probably best known in conservation terms for their breeding birds, as feeding areas for wintering wildfowl and waders and as high-water roosting sites for large numbers of gulls, terns, waders and wildfowl. However, saltmarshes are also home to many other species including molluscs, for example the Dun Sentinel and Mouse-eared Snail and many insect species. The Humber Estuary supports extensive areas of Common Reed. This habitat supports a variety of birds such as Reed Warbler and Sedge Warbler.



WHAT WE CAN ALL DO

- § Let the Biodiversity Partnership know of any unusual animal sightings, especially birds.
- § Report any suspected pollution incidents to the Environment Agency.
- § Report any sightings of injured/dead birds or other animals to the Environment Agency or Environmental Protection at Hull City Council.

Habitats and Species Associated with Estuarine Habitats

Related Habitat Action Plans	
š Fresh Water Habitats	
Related Species Action Plans	
š Reed Bunting	š Saltmarsh Snails
Other species which will benefit from this Habitat Action Plan	
Plants	Amphibians, Reptiles and Fish
š Sea Aster	š Flounder
š Wild Celery	š Codling
š Common Reed	
Birds	
š Rock Pipit	
š Dunlin	
š Redshank	
š Ringed Plover	



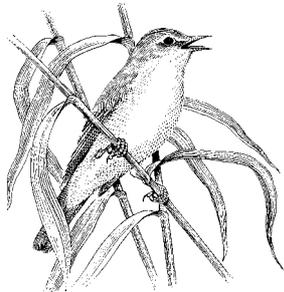
Fresh Water Habitats

The Vision

- š To increase the numbers of lakes and ponds in the city year on year, especially in gardens and industrial sites.
- š Encourage more sensitive management of watercourses.

About the Habitat

This plan covers fresh water habitats such as rivers, drains, lakes and ponds. The River Hull is included in the plan although it receives salt water from the Humber Estuary and is therefore brackish throughout its length in Hull. The River Hull runs from north to south through the City and is typically urban, yet it is still very important for wildlife. Numerous bird species are known to breed along the River, including the Sedge Warbler.



Hull was built upon marshland and relies on the many drains to keep the land dry. Both the major and minor land drains provide important habitats for birds. Kingfishers are regularly seen and there have been occasional sightings of Water Rail.



The bankside areas and margins around the River and drains also support an interesting variety of wild plants including Arrowhead, Meadowsweet and Skullcap. These areas also provide a home for animals including Harvest Mice and Water Shrews. There are small areas of reedbed dominated by Common Reed, which are important for specialist species, such as the Reed Warbler and Water Voles. The River and other linear water bodies provide a wildlife corridor link between fragmented habitats.

Ponds and lakes provide areas of standing fresh water that are a habitat for a very wide range of Britain's fresh water plants and animals, including some of our most endangered species. There are numerous ponds throughout the City, ranging from highly managed ornamental ponds to semi-natural ponds and temporary ponds that develop in hollows. The increased number of ponds in gardens and school grounds has provided a valuable refuge for plants and animals including dragonflies, frogs and newts. They also provide the opportunity for people to experience wildlife close to their homes.



WHAT WE CAN ALL DO

- š Create a wildlife pond.
- š Make our ponds more wildlife-friendly.
- š Report any suspected cases of river pollution to the Environment Agency.
- š Report any sightings of dead/injured animals around water to the Environment Agency.
- š Keep records of wildlife seen and report any unusual bird or animal sightings to the Hull Biodiversity Partnership.
- š Let us know if you create a new wildlife pond.

Habitats and Species Associated with Fresh Water Habitats

Related Habitat Action Plans

- š Estuarine Habitats
- š Grassland

Related Species Action Plans

- š Common Toad
- š Dragonflies
- š Great Crested Newt
- š Harvest Mouse
- š House Martin
- š Pipistrelle bats
- š Mute Swan
- š Reed Bunting
- š Water Vole

Other species which will benefit from this Habitat Action Plan

Plants

- š Arrowhead
- š Common Meadow-rue
- š Curled Pondweed
- š False Fox-sedge
- š Meadowsweet
- š Skullcap
- š Yellow Water-lily

Birds

- š Kingfisher
- š Grey Wagtail
- š Reed Warbler
- š Sedge Warbler
- š Moorhen
- š Goosander
- š Little Grebe
- š Great-crested Grebe
- š Pochard
- š Tufted Duck

Amphibians & Reptiles

- š Common Frog
- š Smooth Newts

Mammals

- š Daubenton's bat
- š Water Shrew



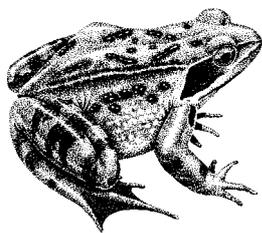
Gardens and Allotments

The Vision

- § To share our gardens with wildlife.
- § To increase the number and variety of creatures that live in our gardens.

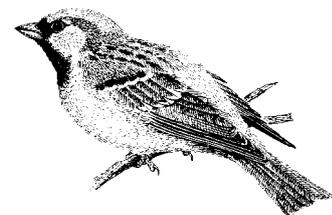
About the Habitat

Gardens and allotments are those areas of land that are managed for personal enjoyment. They are places in which the private citizen can have the greatest impact on biodiversity. Gardens can include a wide variety of habitats such as trees, areas of grass, flower and shrub borders, water features, and also areas for growing food.



Private gardens cover a large proportion of the City area. Collectively they provide wildlife with a rich diversity of habitats making an important contribution to Hull's overall wildlife resource. Numerous allotments are scattered throughout Hull. Allotments are a haven for wildlife, the cultivated and empty plots, nectar producing plants, compost heaps, areas of grass, sheds and stores and the boundary hedges and banks all provide a variety of habitats, attracting birds, insects and small mammals.

The varied range of habitats found in gardens and allotments can support a number of resident species by providing them with food throughout the year, as well as resting and breeding sites. These habitats can also be very important for migratory birds and insects. The species commonly found in gardens and allotments include birds such as the Song Thrush, Blackbird, House Sparrow, Blue Tit, Robin, Starling and Wren. They are also important for Hedgehogs, Frogs and Toads, butterflies such as Comma, Holly Blue and Brimstone as well as ladybirds, spiders and snails.



WHAT WE CAN ALL DO

- § Feed the creatures in our gardens by planting nectar-rich flowers for butterflies and other insects. Feed garden birds, especially in winter and spring. Grow suitable food plants for butterfly caterpillars.
- § Put bird and bat boxes in suitable places in our gardens.
- § Consider planting native trees, shrubs and other plants rather than ornamental varieties.
- § Avoid over-tidiness - piles of leaves can provide shelter for hedgehogs, seed heads left on over winter supply food for birds, and many of our butterflies depend on nettles as food for their caterpillars.
- § Make a wildlife pond to provide a breeding place for frogs, toads, newts and dragonflies.
- § Avoid the use of chemicals – slug pellets can poison birds, amphibians and mammals.
- § Make your own compost, or use peat-free varieties.
- § Send for information on wildlife gardening such as English Nature's free 'Wildlife-Friendly Gardening' leaflet.
- § Look out for wildlife articles in gardening magazines.

Habitats and Species Associated with Gardens and Allotments

Related Habitat Action Plans

- | | |
|--------------------------------------|------------------------------|
| š Grassland | š Trees, Scrub and Hedgerows |
| š Parks, Cemeteries and Golf Courses | š Fresh Water Habitats |

Related Species Action Plans

- | | |
|-------------------------|----------------------|
| š Brimstone Butterfly | š Great Crested Newt |
| š Common Blue Butterfly | š Hedgehog |
| š Common Toad | š Pipistrelle bats |
| š Dragonflies | š Song Thrush |
| š Elm | š Spotted Flycatcher |

Other species which will benefit from this Habitat Action Plan

Birds

- š Blackbird
- š Blue Tit
- š House Sparrow
- š Robin
- š Sparrowhawk
- š Starling
- š Tawny Owl
- š Waxwing
- š Wren

Amphibians & Reptiles

- š Common Frog
- š Smooth Newt

Invertebrates

- š Holly Blue (butterfly)
- š Ladybird
- š Garden Spider
- š Snails
- š Beetles
- š Lacewings



Grassland

The Vision

- § To encourage the appreciation of unimproved grassland so that it is not lost to other land uses or management regimes.
- § To encourage more sensitive management and mowing regimes on grassland.

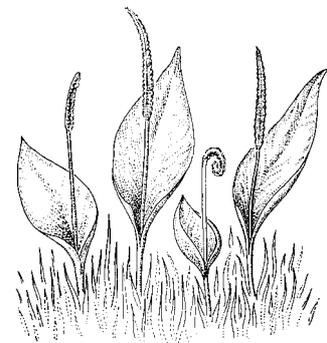
About the Habitat

This plan covers a range of grasslands found within Hull, most of which are neutral wet grasslands, although there are some dry sites and several areas where grassland has developed on abandoned industrial land. There is a small number of unimproved grasslands but most of the grassland in the City is semi-improved or improved.



Unimproved grasslands are largely semi-natural in character and have not been treated with herbicides or artificial fertilisers. There are some excellent examples of neutral unimproved grassland in the area covered by the plan. This type of grassland is rare. The old permanent pastures at Priory Meadows and Snuff Mill Fields have been maintained traditionally for over 100 years. They are dominated by wet grassland and contain temporarily filled hollows, ponds and ditches that provide important breeding grounds for Frogs and Newts. They are also important feeding habitats for Kestrels and Barn Owls. They support a rich variety of flowering plants and several plant species characteristic of unimproved grassland, including Adder's-tongue, Cowslip, and Pepper Saxifrage.

Improved grassland includes land in use for agriculture and areas used for recreation. Agricultural land may be regularly treated with slurry, artificial fertiliser and/or herbicides, often following reseeding. This produces a species-poor grassland that is usually dominated by Perennial Rye Grass and sometimes Clover. Improved agricultural grassland is found on the outskirts of the city and in the surrounding countryside but is generally very poor for wildlife. Grassland used for recreation such as sports pitches, playing fields, public parks, and golf courses is found throughout Hull. These areas tend to be frequently cut and fertiliser and herbicide are applied. Intensively managed recreational grassland is of little biodiversity value because of the limited variety in plant species and structure. However, there is potential to improve the biodiversity of many of these sites without losing their recreational value.



Other grassland features such as those associated with railways, waterways and roads, such as grass verges, central reservations and roundabouts may also be important for wildlife. In some cases these habitats support important plants and animals and also provide corridors that help species move from place to place. Such habitats are becoming increasingly valuable for wildlife, as other grassland habitats are lost.

WHAT WE CAN ALL DO

- § Help protect unimproved grassland.
- § Ask for edges of local playing fields and school fields to be left uncut to allow wild flowers to grow and provide habitat for many insects, birds and small mammals.
- § Be aware that grass verges left uncut may be to make them more attractive habitats, not that they have been neglected.

Habitats and Species Associated with Grassland

Related Habitat Action Plans

- § Gardens and Allotments
- § Parks, Golf Courses and Cemeteries
- § Industrial Land

Related Species Action Plans

- § Common Blue Butterfly
- § Common Toad
- § Cowslips
- § Great Crested Newt
- § Harvest Mouse
- § Skylark

Other species which will benefit from this Habitat Action Plan

Plants

- § Adder's-tongue
- § Bird's-foot-trefoil
- § Common Knapweed
- § Cuckoo Flower
- § Danish Scurvy-grass
- § Green-winged Orchid
- § Heath-spotted Orchid
- § Lesser Stitchwort
- § Meadow Barley
- § Pepper-saxifrage
- § Southern Marsh Orchid
- § Yarrow

Birds

- § Barn Owl
- § Kestrel
- § Snipe

Mammals

- § Common Shrew
- § Mole
- § Roe Deer
- § Short-tailed Vole
- § Stoat
- § Weasel

Invertebrates

- § Small Copper (butterfly)
- § Ringlet (butterfly)
- § Orange-tip (butterfly)
- § Large Skipper (butterfly)
- § Lacewing

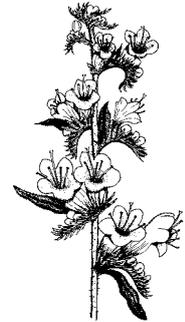
Industrial Land

The Vision

- š To encourage industry to work with nature, not against it.
- š To encourage industry to incorporate wildlife-friendly features in existing and new industrial areas.

About the Habitat

This plan includes areas of naturally vegetated urban land and industrial land, including railway land, dockland and other under-used sites. Industrial land is often secure and undisturbed by human activity, bringing benefits for a wide range of birds and flowering plants. With correct management the range of wildlife that industrial habitats support can be very varied.



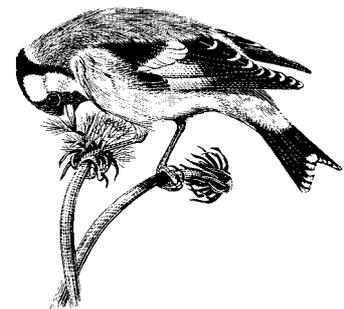
Unused industrial land is common in urban areas such as Hull. The soil on many abandoned industrial sites is often poor and the lack of nutrients encourages a wide range of plants. The open ground is important for lichens, butterflies, moths, beetles and bees.



The active and disused railway lines of Hull form a significant network of diverse habitats across the city and make a valuable contribution to the extent of semi-natural habitat in Hull. The verges and embankments of the active lines are ideal for wildlife with large areas of grassland, scrub and woodland attracting a range of insects, particularly butterflies, as well as many different mammals and birds. Although very different in character the disused lines are equally valuable. The disused sidings and tracks provide a habitat for grassland plant species now otherwise uncommon in the area, for example Kidney Vetch and Toadflax species.

Hull is a major commercial port and a large area of the city is occupied by dockland that provides an important habitat for many species. In areas where dockland has been left vacant for some time, species-rich plant and animal communities have had time to develop. The disused docks and surrounding areas are important for both native species and established foreign plant species. Uncommon species which occur on the disused docks of Hull include Yellow-wort, Viper's-bugloss and Great Mullein.

Demolition sites and land awaiting development also provide important habitats; such sites are very variable in nature and usually temporary. These sites are generally naturally colonised and support pioneer plant and animal communities. Plant species such as Rosebay Willowherb and Butterfly-bush are characteristic of the early stages among the brick rubble of recently demolished sites, and over time are gradually replaced by longer-lived plants, shrubs and trees. Rough grassland often develops and small mammals such as voles, mice and shrews will live there and become prey for Weasels, Stoats, Kestrels and Sparrowhawks.



WHAT WE CAN ALL DO

- š Keep an eye out for unusual plants on individual sites and report these to the Hull Biodiversity Partnership.
- š Keep a corner of sites as mini wildlife reserves.
- š Create a wildlife pond.

Habitats and Species Associated with Industrial Land

Related Habitat Action Plans

- | | |
|-------------------------|------------------------------|
| š Grassland | š Trees, Scrub and Hedgerows |
| š The Built Environment | |

Related Species Action Plans

- | | |
|-------------------------|---------------|
| š Bee Orchid | š Linnet |
| š Common Blue Butterfly | š Wall Ferns |
| š Lichens | š Yellow-wort |

Other species which will benefit from this Habitat Action Plan

Plants

- š Bristle-grasses
- š Fescues
- š Kidney Vetch
- š Pyramidal Orchid
- š Southern Marsh Orchid
- š Toadflax
- š Tall Rocket
- š Teasel

Birds

- š Black Redstart
- š Goldfinch
- š Siskin
- š Tawny Owl

Invertebrates

- š Wall Brown (butterfly)
- š Ringlet (butterfly)
- š Beetles

Parks, Golf Courses and Cemeteries

The Vision

š To provide appropriate wildlife-friendly management of parks, golf courses and cemeteries.

About the Habitat

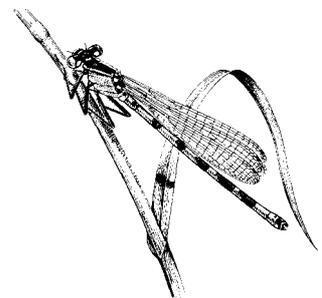
The open space that public parks provide in Hull is invaluable. Parks are generally well used and their high level of management appreciated. Many of the parks within Hull contain lakes or ponds that are very important for birds. However, there is scope to improve their wildlife value.

As other wildlife habitats disappear, golf courses are becoming increasingly important for wildlife, especially in urban areas. Large areas are manicured, but there is a sizeable amount of rough, which has some importance for wildlife. If golf courses are landscaped and managed sensitively and creatively they can be ideal habitats for plants and animals. Hull's golf courses, situated on the fringes of the city on former agricultural land, contain many well-established trees and hedgerows, wetlands and areas of rough grassland. Trees and hedges are used for nesting, roosting and act as a food source for several species of birds. Wild flowers, invertebrates and small mammals can be found in the rough areas. Ponds and other watercourses can be rich in invertebrate, plant and bird life.



Hull has some important churchyards and many cemeteries distributed across the city. They range from manicured lawns and tended flowerbeds to neglected wildernesses. Churchyards and cemeteries are often similar in terms of wildlife and both may attract wildlife because of their lower disturbance and greater habitat diversity compared to surrounding areas. They can act as valuable refuges for rare and uncommon species. Typically, older churchyards have more native species, with mature Yew and Beech dominating, mixed with Lime and exotic conifers which were often planted in Victorian times.

Shrubs including Holly and climbers like Ivy are also typical. The gravestones themselves can support a huge variety of lichens. Older stones laid on their side may provide basking sites for reptiles such as the Common Lizard.



WHAT WE CAN ALL DO

- š Help record plant, animal and insect species and report these to the Hull Biodiversity Partnership.
- š Encourage your church to participate in the Yorkshire Living Churchyard Project.

Habitats and Species Associated with Parks, Golf Courses and Cemeteries

Related Habitat Action Plans

- | | |
|------------------------|------------------------------|
| š Grassland | š Gardens and Allotments |
| š Fresh Water Habitats | š Trees, Scrub and Hedgerows |

Related Species Action Plans

- | | |
|-----------------|----------------------|
| š Brimstone | š Lichens |
| š Common Lizard | š Mute Swan |
| š Common Toad | š Pipistrelle bats |
| š Cowslip | š Song Thrush |
| š Elm | š Spotted Flycatcher |
| š Hedgehog | |

Other species which will benefit from this Habitat Action Plan

Plants

- š Fungi
- š Cuckooflower

Birds

- š Blackbird
- š Blue Tit
- š Dunnock
- š Robin
- š Starling
- š Wren
- š Waxwing

Amphibians & Reptiles

- š Common Frog

Invertebrates

- š Holly Blue (butterfly)
- š Ladybird

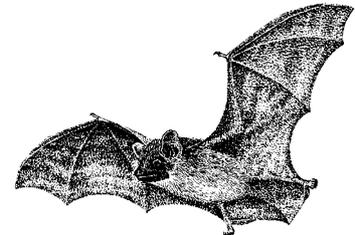
The Built Environment

The Vision

- š To encourage all building projects to consider how they can make provision for wildlife.
- š To encourage private households to value wildlife.

About the Habitat

This built environment covers any man-made structure and includes domestic and industrial buildings, walls, bridges and tunnels, hard surfaces such as pavements and car parks and other structures such as electricity pylons. Many species that would normally use natural features such as caves, cliffs, rocks and bare ground have adapted to use man-made sites, as natural sites have decreased.



Nearly 80% of Hull can be classed as 'Built Environment'. It is therefore very important that it is recognised as an important habitat for wildlife. The built environment is home to a wide range of plants, birds and mammals. Ferns and flowering plants are found on buildings and walls, especially in the Old Town, and lichens can be found on many structures. Birds such as Swallows, House Martins and Swifts use buildings instead of their traditional cliff habitats and Pipistrelle bats often form roosts in modern buildings, rather than hollow trees.

Some species that use the built environment are regarded as pests and attempts are often made to try and control them. However most species do not cause damage or disturbance and should be tolerated or even encouraged. Some species using the built environment are in decline and are protected by law.

WHAT WE CAN ALL DO

- š Incorporate access for birds and bats in new buildings or provide boxes on the outside.
- š Set aside a small corner for wildlife and perhaps build a pond.
- š Use local native plants for landscaping schemes.

Habitats and Species Associated with The Built Environment

Related Habitat Action Plans	
š Industrial Land	
Related Species Action Plans	
š House Martins	š Pipistrelle bats
š Lichens	š Wall Ferns
Other species which will benefit from this Habitat Action Plan	
Plants	Mammals
š Mosses	š Whiskered bat
Birds	
š Swallow	
š Swift	

Trees, Scrub and Hedgerows

The Vision

- š To see year on year improvements in the quantity and quality of native shrubs, trees and hedgerows.

About the Habitat

Trees are found in many situations within the urban environment. This action plan covers woodlands, parkland, wood pasture and individual trees in streets and gardens. Deadwood habitats, hedgerows, scrub and areas of natural regeneration are also included.

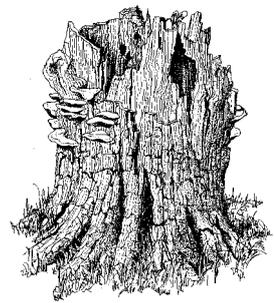
Trees play a vital role in the urban ecosystem, providing local benefits for wildlife. Many birds, mammals and invertebrates use trees as roosts, breeding sites and feeding areas. Within Hull there are examples of several wooded habitats. However all examples are small and none of them is completely natural. Most of the patches of mature trees are very open with little under-storey and therefore not attractive to all woodland species.



Trees and shrubs in streets, recreation areas or private gardens play an important part in making our urban area a more pleasant place to live. They perform a number of functions: reducing air and noise pollution, creating shade, softening the built environment and creating local distinctiveness. In urban areas, with few wooded habitats, tree-lined areas such as the Avenues provide a substantial number of mature trees and shrubs and are especially important for wildlife.

Deadwood is also valuable for wildlife. A variety of organisms such as bacteria, lichens and fungi make their home in deadwood. These organisms make the habitat more easily accessible for other animals for breeding or shelter.

Hedgerows are important habitats for butterflies and moths, farmland birds, bats and other mammals. Hedgerows may also act as wildlife corridors for many species, including reptiles and amphibians, allowing their spread and movement between other habitats.



WHAT WE CAN ALL DO

- š Plant native trees and shrubs, preferably using plants of local origin.
- š Leave deadwood to decay naturally.
- š Carry out hedge maintenance in late winter (December-February) so that nesting birds are not disturbed and flowers and fruit are produced.

Habitats and Species Associated with Trees, Scrub and Hedgerows

Related Habitat Action Plans

š Gardens and Allotments

š Parks, Golf Courses and Cemeteries

Related Species Action Plans

š Brimstone

š Hedgehog

š Common Lizard

š Lichens

š Common Toad

š Linnet

š Elm

š Reed Buntings

š Great Crested Newt

š Tree Sparrow

Other species which will benefit from this Habitat Action Plan

Plants

š Bluebell

š Garlic Mustard

š Ground Ivy

š Honeysuckle

š Red Campion

Birds

š Treecreeper

š Great Spotted Woodpecker

š Redpoll

š Corn Bunting

Mammals

š Bank Vole

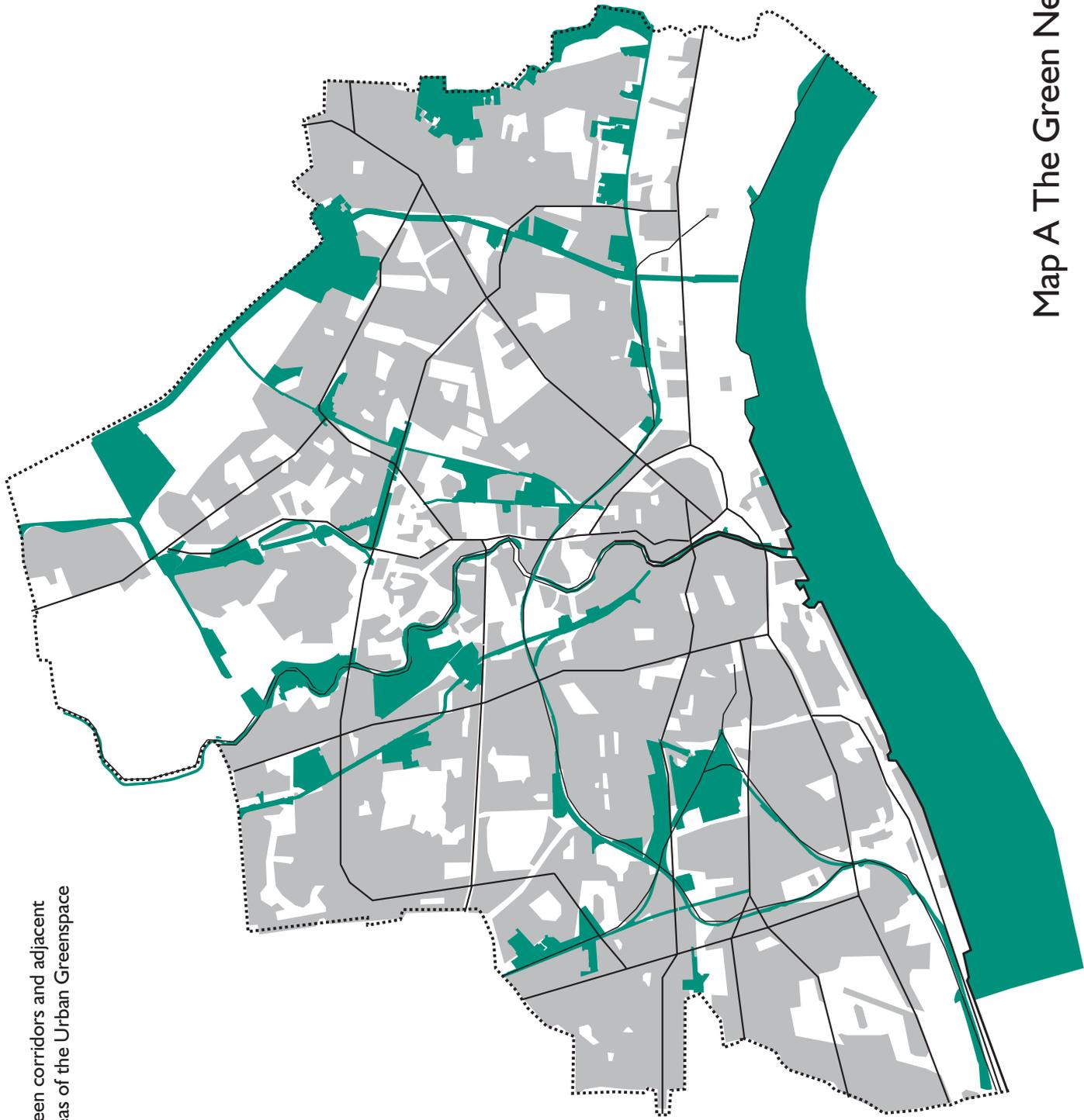
š Noctule bat

Invertebrates

š White-letter Hairstreak (butterfly)

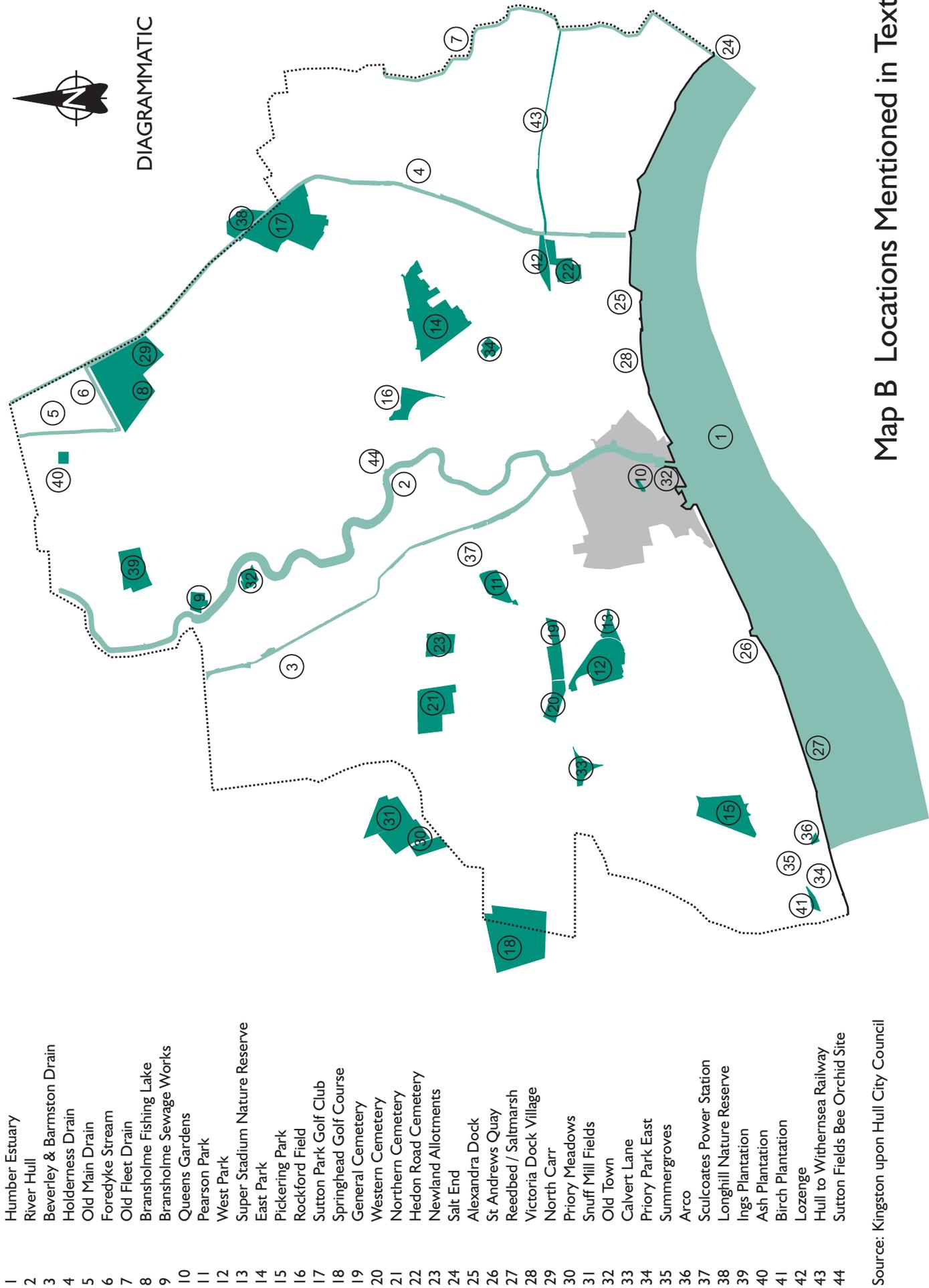


Green corridors and adjacent areas of the Urban Greenspace



DIAGRAMMATIC

Map A The Green Network



Map B Locations Mentioned in Text

Source: Kingston upon Hull City Council



Hull Biodiversity Action Plan

Habitat Action Plans

Estuarine Habitats

Industrial Land

Fresh Water Habitats

Parks, Golf Courses and Cemeteries

Gardens and Allotments

The Built Environment

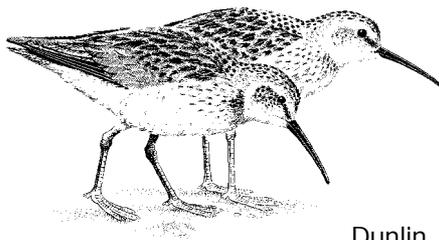
Grassland

Trees, Scrub and Hedgerows

Estuarine Habitats

This plan covers the Humber Estuary and associated habitats, including mudflats, saltmarsh and reedbeds. The Estuary makes up over 4% of Kingston upon Hull, therefore estuarine habitats are particularly important.

The Estuary itself is home to many species including Grey Seals, and Lamprey (a primitive type of fish); both Sea Lampreys (*Petromyzon marinus*) and River Lampreys (*Lampetra fluviatilis*) are found in the Humber. Other fish such as Flounder (*Platichthys flesus*) move up into the Estuary to feed, and it also provides important nurseries for North Sea fish populations, including Codling.



Dunlin

Over one third of the Humber Estuary is exposed as mud or sand flats at low-tide. These intertidal flats are of national and international importance for wildlife. Mudflats are attractive habitats for invertebrates such as burrow-dwelling worms and bivalves. The large numbers of invertebrates which occur on the flats support fish and are winter food for wading birds from both Britain and Europe, including Dunlin (*Calidris alpina*), Redshank (*Tringa totanus*) and Ringed Plover (*Charadrius hiaticula*).

Saltmarsh occurs on sheltered parts of the Estuary. It can be thought of as a habitat between fully marine and land conditions. Saltmarsh vegetation consists of a limited number of salt-loving species that are adapted to regular covering by the tides. Saltmarsh habitats are probably best known in conservation terms for their breeding birds, as feeding areas for wintering wildfowl and waders and as high-water roosting sites for large numbers of gulls, terns, waders and wildfowl. However, saltmarshes are also home to many other species including molluscs, for example the Dun Sentinel (*Assiminea grayana*) and Mouse-eared Snail (*Ovatella myosotis*) and many insect species. The Humber Estuary supports extensive areas of Common Reed (*Phragmites australis*). This habitat supports a variety of birds such as Reed Warbler (*Acrocephalus scirpaceus*), and Sedge Warbler (*Acrocephalus schoenobaenus*).

Both mudflats and other intertidal areas are very important for coastal defence. They break-up wave energy, so reduce the risk of eroding saltmarshes, damaging coastal defences and flooding low-lying land. Saltmarshes are important in defending the land against erosion and they also trap sediments and pollutants.

CURRENT STATUS

The total UK estuarine resource has been estimated as about 588,000 hectares of which 55% is intertidal area, mostly mud and sandflats with a lesser amount of saltmarsh. The UK has about 15% of the north-west European estuarine habitat. The mudflats of the Humber exposed at low-tide cover an area of 1300 hectares, representing 4.5% of the British resource.

The southern boundary of Hull, which runs from west of Hessle to Salt End, stretches well into the River Humber, and includes 314 hectares of water, about 4.4 % of the City area. Within the Hull boundary there are extensive areas of mud flat, and some important areas of reedbed and saltmarsh exist west of St Andrew's Dock.

CURRENT FACTORS AFFECTING ESTUARINE HABITATS

- § The Humber and its wildlife face a number of serious threats, ranging from long-term, estuary-wide threats such as sea level rise and industrial and port related development, through to much more localised problems, such as recreational disturbance at sensitive sites.

HABITAT ACTION PLAN

- § Sea level rise is the greatest threat to the Estuary's wildlife. Average sea levels are rising by about 6 mm per year in the Estuary. The Humber is held back for the most part by an extensive fixed line of flood defences. As the sea level rises, the intertidal areas will gradually decrease in a process known as 'coastal squeeze'. Estimates suggest that hundreds of hectares of intertidal habitat are likely to be lost in this way over the next twenty years, leading to significant losses of feeding and roosting habitat for shore birds, which may lead to a decline in their wintering, passage and breeding numbers on the Estuary. In Hull, this may lead to loss of large areas of mudflat and complete loss of saltmarsh habitat, with no means of recreating it within the city boundary because of the flood defence line.
- § Pollution from agriculture, industry and urban areas is still a threat to the Estuary's wildlife, although water quality has been improving for many years.
- § The Humber is an important national location for many industries. Infrastructure development, such as power station cooling systems, gas and chemical pipelines and electricity cables across the intertidal area, can have significant impacts on the Estuary's wildlife. Port development may need direct access to deep-water channels, which can result in direct loss of habitat.
- § Unregulated recreational activity can have a severe impact on wildlife, mainly through disturbance. In the most sensitive areas, such as high-tide wader roosts, even normally harmless activities such as dog walking, can force birds to leave traditional sites.
- § Dredging for navigation or aggregates may have an important effect upon the animal and plant life of the sediment, and sediment supply and transport.

CURRENT ACTION

Legal Status

Some areas of the Humber Estuary are designated as Special Protection Areas (SPA); this is the European designation for the protection of specific species of bird. The extension of this designation to the whole of the Humber is being considered. The whole of the Humber is recommended as a Special Area of Conservation (SAC), the European designation for the protection of specific habitats and species, giving it the status of a 'European Marine Site'. The United Kingdom is required to set and meet conservation objectives for European Marine Sites. The whole of the Humber is also proposed as a Site of Special Scientific Interest.

Management, Research and Guidance

A number of local, statutory and public bodies have created the 'Humber Management Scheme' to meet the conservation objectives required for the Humber as a European Marine Site. These bodies are known as the 'Relevant Authorities'. The Humber Management Scheme aims to maintain the favourable condition of the habitats on the Humber Estuary and make sure that suitable management is carried out.

The Environment Agency is responsible for developing Shoreline Management Plans (SMPs). The main concern of SMPs is flood and coast protection; the importance of mudflats in protecting low lying coastal features is recognised. The SMP proposes managed retreat of some limited defences as a way of creating extra capacity in the Humber. This has the added advantage of creating additional habitat.

The Environment Agency also carry out intertidal biological sampling to test water quality, two sampling points are within the Hull boundary (Alexandra Dock and St Andrew's Quay). The EA collect seaweed (*Fucus*) from these two sites, which is then analysed for pesticides and heavy metals as part of their bioaccumulation survey.

Monthly high-tide counts of waterfowl are carried out on the Humber as part of the Wetland Bird Survey (WeBS). This is a national scheme run by the BTO, RSPB, JNCC and WWT. English Nature and the RSPB carry out monthly low-tide waterfowl counts throughout the Estuary. Other organisations, such as BP, also contribute by collecting data and keeping records.

HABITAT ACTION PLAN

The UK Biodiversity Steering Group has produced a Habitat Statement for estuaries, which recommends that the conservation direction should be to maintain and enhance the extent and quality of estuarine habitats in the UK, including the full diversity of estuarine communities.

The UK Biodiversity Steering Group has produced a Habitat Action Plan for mudflats. The Plan aims to maintain at least the present extent and regional distribution of the UK's mudflats; create and restore enough intertidal area over the next 50 years to offset predicted losses to rising sea level in the same period; and restore estuarine water quality to ensure that existing mudflats fulfil their important ecological and conservation role. A national Habitat Action Plan has also been produced for coastal saltmarsh. The overall objectives of this plan are to offset the current losses due to coastal squeeze and erosion, to maintain the existing extent of saltmarsh habitat, and to restore the area of saltmarsh to 1992 levels.

ACTION PLAN AIMS

1. To maintain the quality of the existing estuary mudflats in terms of community and species diversity and restore the nature conservation interest through appropriate management.
2. To continue sampling to test the water quality and levels of heavy metals and pesticides.
3. To continue monitoring of bird populations on the Estuary.
4. To continue involvement in production of an Estuary-wide Action Plan.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation Produce an Estuary-wide Action Plan	Ongoing: Continue involvement in production of an Estuary-wide management plan.	EA, EN, KuHCC (Planning Policy), ABP and other 'Relevant Authorities'	4
Habitat Management and Protection To pursue SAC designation for whole of Estuary. Ensure use of the Estuary is not harmful to wildlife.	Ongoing: To ensure the Estuary is recognised as European Marine Site. Short Term: Review permissions on the Estuary. Ongoing: Continue to regulate activities on the Estuary.	EN KuHCC (Planning), EA, EN	1 1
Advisory Provide advice on Estuary management.	Ongoing: Provide advice on Estuary management.	EA	1

HABITAT ACTION PLAN

Future Research and Monitoring Monitor water quality. Monitor birds.	Ongoing: Intertidal sampling to test water quality, levels of heavy metals, pesticides etc.	EA	2
	Ongoing: Monthly high-tide counts of waterfowl. Ongoing: Monthly low-tide waterfowl counts throughout the Estuary	BTO, RSPB, JNCC, WWT EN, RSPB	3
Communications and Publicity To encourage Relevant Authorities to give wide publicity to their plans and strategies.	Ongoing: Relevant Authorities to give wide publicity to their plans and strategies and encourage involvement of voluntary bodies in advisory groups.	Relevant Authorities	4

WHAT WE CAN ALL DO

- š Report any unusual animal sightings, especially birds, to the Partnership.
- š Report any suspected pollution incidents to the Environment Agency.
- š Report any sightings of injured/dead birds or other animals to the Environment Agency or Environmental Health at Hull City Council.

LINKS WITH OTHER ACTION PLANS

Freshwater Habitats are closely linked with this plan. Estuarine habitats are essential for Saltmarsh Snails and Reed Buntings.

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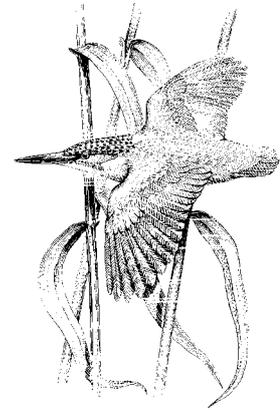
Fresh Water Habitats

This plan covers fresh water habitats such as rivers, drains, lakes and ponds. The River Hull is also included in the plan although it has strong saline influences. The importance of the habitats surrounding freshwater is also highlighted.

The mosaic of features found in rivers support a wide range of plants and animals. Marginal and bankside areas also support a variety of wild flowers such as Arrowhead (*Sagittaria sagittifolia*) and animals including Water Voles (*Arvicola terrestris*) and Water Shrews (*Neomys fodiens*). Rivers and other linear water bodies often provide a wildlife corridor link between fragmented habitats.

Ponds and lakes provide areas of standing fresh water that can be natural or man-made. Standing water provides a habitat for a very wide range of Britain's fresh water plants and animals, including some of our most endangered species. The increased number of ponds in gardens and school grounds has provided a valuable refuge for plants and animals including dragonflies, frogs and newts. They also provide the opportunity for people to experience wildlife close to their homes.

Kingfisher



CURRENT STATUS

The River Hull runs from north to south through the City. The River receives salt water from the Humber Estuary and is therefore brackish throughout its length in Hull. The degree of salinity and the depth of the River are dependent on the tides. The stretch of the River Hull within the City boundary is typically urban, yet it is still very important for wildlife. Numerous bird species are known to breed along the River Hull, including the Sedge Warbler (*Acrocephalus schoenobaenus*). There are small areas of reedbed along the edge of the river dominated by Common Reed (*Phragmites australis*), which are important for specialist species, such as the Reed Warbler (*Acrocephalus scirpaceus*) and Water Voles.

Hull was built upon marshland and relies on the many drains to keep the land dry. Many interesting plant species are found along the drains such as Arrowhead, Meadowsweet (*Filipendula ulmaria*) and Skullcap (*Scutellaria galericulata*). Both the major and minor land drains provide important habitats for birds. Kingfishers (*Alcedo atthis*) are regularly seen and there have been occasional sightings of Water Rail (*Rallus aquaticus*). Mute Swans (*Cygnus olor*) are often recorded on the Beverley and Barmston Drain and the Holderness Drain. Water Voles were once found in Holderness Drain, Foredyke Stream, and Old Main Drain but there have been very few sightings in recent years.

There are numerous ponds throughout the City, ranging from highly managed ornamental ponds to semi-natural ponds and temporary ponds that develop in hollows. Examples of ornamental ponds are found in Queens Gardens and Pearson Park. Many semi-natural ponds are built in gardens and school grounds and increasingly in the City's parks. There are several places in Hull where seasonal ponds develop, for example in the scrapes at North Carr, at Priory Park East and in the large hollow on former railway land at Calvert Lane.

Moorhens (*Gallinula chloropus*) breed in most of Hull's parks. The presence of Great Crested Grebes (*Podiceps cristatus*) breeding in East Park is of local significance as there are few breeding sites in East Yorkshire. Gadwall (*Anas strepera*), Tufted Duck (*Aythya fuligula*) and Goosander (*Mergus merganser*) winter in East Park.

There are also several other features throughout Hull that provide freshwater habitats, including Bransholme Fishing Lake, the storm overflow lagoon at Bransholme Sewage Works and a sluice and borrow pit at the Arco site in the south west of the City.

HABITAT ACTION PLAN

Drains, ponds and lakes in the City area provide rich feeding grounds for insectivorous bat species including pipistrelles (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*) and Whiskered bats (*Myotis mystacinus*).

CURRENT FACTORS AFFECTING FRESH WATER HABITATS

- § Pollution reduces the variety of plants and animals in all freshwater habitats. Run-off from agricultural land and built-up areas is the main source of pollutants. Pollutants include oil, road water run-off, pesticides, herbicides and fertilisers. Phosphate in sewage effluent and fertilisers can cause high levels of nutrients in freshwater and can lead to characteristic plants being replaced by blanket weed and other algae with following changes to animal communities.
- § Introduction and escape of non-native species such as American Mink (*Mustela vison*), Signal Crayfish (*Pacifastacus leniusculus*) and Canadian Pondweed (*Elodea canadensis*), can have devastating effects on native plants and animals. Many non-native species out-compete or prey on native species and some may carry diseases that British species have no resistance to.
- § All aquatic habitats are important for recreation but this can sometimes conflict with nature conservation. Discarded fishing tackle can be dangerous to many animals and birds and the use of lead weights in recent decades had dramatic effects on Mute Swan populations. Introduction of fish for angling and removal of predators can lead to the loss of natural fish populations and have an effect on plant and invertebrate communities. High numbers of wildfowl can reduce the value of ponds and lakes for other animals and plants. Boats can cause damage to plants, and dogs often disturb birds and mammals.
- § Where rivers have been dredged, straightened or re-profiled (generally for drainage or navigation), stable beds which supported submerged and floating plants and other natural features have been lost, along with pools, undercut banks and other natural features which gave shelter to Otters, fish and birds.
- § Succession from shallow water to dry land due to the build up of dead leaves and silt is a natural reason for the loss of pond habitat. Many of the ponds within Hull are in various stages of decline, generally becoming in-filled with reed and silted up. Without appropriate management these valuable wildlife resources will be lost. Land drainage and water abstraction can cause ponds to dry up. Ponds may also be lost to development and agriculture.
- § The land surrounding a pond is an important part of the habitat. Reduction in the area of this 'buffer' zone' is the reason for ponds becoming less suitable to many animals, such as amphibians and dragonflies that breed in ponds but spend much of their adult life away from water.
- § Over zealous management can result in the loss of fringe habitats and marginal zones. A number of the park ponds within Hull have been treated with herbicides to deal with invasive vegetation but these are often non-specific and kill all the plants rather than just those that are causing a problem.

CURRENT ACTION

Legal Status

A number of organisations, including the Environment Agency (EA), Internal Drainage Boards (IDBs), water companies, and local authorities, are required by law to further conservation where it is in line with their management requirements. Legislation that deals with the functions and obligations of these organisations is set out in the Water Resources Act (1991) and the Land Drainage Act (1991). The EA also has legal responsibilities for pollution control.

HABITAT ACTION PLAN

Under the Wildlife and Countryside Act, (1981) the unlicensed release to the wild of non-resident alien animals, some established alien animals (including American Mink, and certain species of wildfowl, amphibia, fish and crayfish) and some plants e.g. Japanese Knotweed (*Fallopia japonicus*), is prohibited.

Management, Research and Guidance

A number of agricultural support schemes are in place which aim to benefit watercourses. These include some Environmentally Sensitive Area recommendations, and the Countryside Stewardship Scheme.

The UK Biodiversity Steering Group (UKBSG) has produced a Habitat Statement for rivers and streams. The proposed conservation direction is to maintain and improve the quality, state and structure of all UK rivers and streams and their associated floodplains, and restore degraded rivers and streams taking account of water quality and quantity, structure and hydraulic connection with the floodplain. A Habitat Statement has also been produced for standing open water.

A national Habitat Action Plan has been produced for reedbeds. The objectives of this plan are to identify and rehabilitate the priority areas of existing reedbed and maintain by active management. The plan also sets a target for the creation of 1200 hectares of new reedbed on land of low nature conservation interest by 2010. The UKBSG has also produced a Habitat Action Plan for eutrophic standing water.

The management of Hull's waterways varies but in general aims to maintain the flow of water through watercourses with stable banks. A scheme to enhance the wildlife and recreational value of a section of the Beverley and Barmston Drain was carried out in the 1990s. The steep-sided, linear drain was radically altered by major earthworks to create a series of meanders with shallow, marshy margins and gently sloping banks planted with native trees and shrubs. Two ox-bow lakes were also created. KuHCC has excavated a pond at Longhill Nature Reserve which, though outside the boundary, is owned by Hull City Council.

ACTION PLAN AIMS

1. To maintain and enhance reedbeds.
2. To monitor bird populations.
3. To monitor plant species.
4. To encourage creation of ponds.
5. To prevent loss of ponds through build up of silt.
6. To control invasive plant and animal species.
7. To provide advice on habitat management.
8. To improve habitats surrounding water.
9. To determine the distribution of Water Voles.
10. To ensure wildlife-friendly management practices.

HABITAT ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Require developers to build ponds through the planning process.</p>	<p>Ongoing: Policy of pond construction where appropriate.</p>	<p>KuHCC (Planning)</p>	<p>4</p>
<p>Habitat Management and Protection</p> <p>Prevent loss of ponds through build up of silt.</p> <p>Remove invasive species where they are adversely affecting native species.</p> <p>Relax mowing regime on river and drain banks.</p> <p>Species translocation.</p> <p>Improve marginal habitats.</p>	<p>Short Term: Clear silt and excessive vegetation from ponds at North Carr.</p> <p>Ongoing: Manual clearing of invasive vegetation from waterways and park ponds.</p> <p>Short Term: Review mowing regimes. Medium Term: Relax mowing regime on some bank areas.</p> <p>Ongoing: Where essential works are required, attempt to translocate reedbeds.</p> <p>Ongoing: Plant reedbeds in park ponds and lakes and use willow 'shoring' to prevent erosion to islands.</p>	<p>KuHCC (Area Committee), BGEEP</p> <p>EA, KuHCC (Parks and Open Spaces)</p> <p>EA, KuHCC (Grounds Maintenance)</p> <p>EA, KuHCC (Planning)</p> <p>KuHCC (Parks and Open Spaces)</p>	<p>5</p> <p>6</p> <p>7, 10</p> <p>1, 8</p> <p>8</p>
<p>Advisory</p> <p>Provide advice on management of fisheries.</p> <p>Provide advice on invasive plants.</p>	<p>Ongoing: Ensure management of Bransholme and Pickering Park Fishing Lakes is not detrimental to wildlife.</p> <p>Ongoing: Provide leaflet on invasive plants.</p>	<p>EA</p> <p>EA</p>	<p>7</p> <p>6</p>
<p>Future Research and Monitoring</p> <p>Determine the distribution of Water Voles.</p> <p>Monitor bird species.</p>	<p>Short Term: Carry out Water Vole survey on Hull's waterways.</p> <p>Ongoing: Monitor birds.</p>	<p>YWT Water Vole Project</p> <p>HVWG, EYB</p>	<p>9</p> <p>2</p>

HABITAT ACTION PLAN

Monitor plant species.	Ongoing: Monitoring of plant species in alternate years.	HNHS	3
Communications and Publicity No communications or publicity proposed.			

WHAT WE CAN ALL DO

- § Create a wildlife pond.
- § Make your pond more wildlife-friendly.
- § Report any suspected cases of river pollution to the Environment Agency.
- § Report any sightings of dead/injured birds or other animals around water to the Environment Agency.
- § Report any unusual animal sightings to the Hull Biodiversity Partnership.

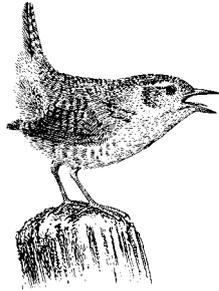
LINKS WITH OTHER ACTION PLANS

Rivers, drains and lakes are essential habitats for birds, including the **Mute Swan**. Patches of mud along the banks of lakes and rivers may be important for **House Martins** who use mud to construct their nests. Ponds and surrounding habitats are important for the **Common Toad** and **Great Crested Newt**. The marginal habitats are important for **Reed Bunting**, **Water Voles**, **Harvest Mice** and **Dragonflies**.

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Gardens and Allotments



Wren

Gardens and allotments are those areas of land that are managed for personal enjoyment. They are places in which the private citizen can have the greatest impact on biodiversity. Gardens can include a wide variety of habitats such as trees, areas of grass, flower and shrub borders, water features, and also areas for growing food. This range of habitats can support a number of resident species by providing them with food throughout the year, as well as resting and breeding sites. In addition, gardens can also be very important for migratory birds and insects.

Allotments are a haven for wildlife, the cultivated and empty plots, nectar producing plants, compost heaps, grass areas, sheds and stores, and the boundary hedges and banks all provide a variety of habitats, attracting birds, insects and small mammals.

The varied habitats within gardens and allotments are used by a number of species. These include birds such as the Song Thrush (*Turdus philomelos*), Blackbird (*Turdus merulus*), House Sparrow (*Passer domesticus*), Blue Tit (*Parus caeruleus*), Robin (*Erithacus rubecula*), Starling (*Sturnus vulgaris*) and Wren (*Troglodytes troglodytes*). They are also important for Hedgehogs (*Erinaceus europaeus*), Frogs and Toads, butterflies such as Comma (*Polygonia c-album*), Holly Blue (*Celastrina argiolus*) and Brimstone (*Gonepteryx rhamni*) as well as ladybirds, spiders and snails. Gardens and allotments also provide insect rich feeding areas for bat species especially pipistrelles and Whiskered bats (*Myotis mystacinus*) to feed after dusk.

CURRENT STATUS

Gardens are found across the UK, and cover about 3% of the land surface of England and Wales. Individual gardens vary in size, structure and management. They may be anything from an isolated green patch, to a sizeable complex of neighbouring properties, which may be important to biodiversity in their own right. Gardens and allotments can act as an important extension of, or a corridor between, other habitats important for biodiversity.

There are over 13 000 ha of allotment in the UK, most of which are in towns and cities and make a valuable contribution to greenspace. The older, well-established allotments are of greatest wildlife interest. Hedgerows and trees, patches of Bramble and Hawthorn scrub and abandoned plots are features of particular importance. It has been shown that allotments have, on average, up to 30% higher species diversity than urban parks.

Private gardens cover a large proportion of the City area. Collectively they provide wildlife with a rich diversity of habitats in which they feed and breed making an important contribution to Hull's overall wildlife resource. The value of any individual garden for wildlife will depend on its size, age, location and management. A garden with high plant diversity, plenty of cover and areas where wild plants are allowed to flourish, has the potential to attract and support a wide range of plants and animals. Numerous allotments are scattered throughout Hull covering approximately 65 ha.

CURRENT FACTORS AFFECTING GARDENS AND ALLOTMENTS

- § Large gardens and allotments are increasingly under threat because they are very attractive to developers for housing and commercial development. Development leads to fragmentation of habitats as well as direct loss.
- § The biodiversity of gardens and allotments is at risk from the use of herbicides and pesticides, which directly reduce the number of plant and invertebrate species. These also have consequences for predatory species, for example, Song Thrush and Hedgehogs can be poisoned by eating slugs and snails that have been killed by slug pellets.

HABITAT ACTION PLAN

- § Vegetation within gardens and allotments is largely planted and intensively maintained. It is often of an ornamental nature, commonly involving introduced species. Naturally colonising species are viewed as weeds and removed. Excessive 'tidiness' removes areas of shelter and food for many species.
- § Many species, particularly birds, are disturbed by too much human activity, which interferes with their normal lifecycles.

CURRENT ACTION

Legal Status

Gardens, like any piece of land, are subject to planning controls. However, very few are protected from development purely because of their biodiversity.

The modern legislation covering allotments has developed bit by bit, with various Allotment Acts being introduced between 1908 and 1950. The various acts are still mostly in force and continue to define many aspects of allotment provision. The legislation places a duty upon local authorities to provide allotments where there is demand. Beyond this requirement, the most important feature of the legislation is the protection it provides for 'statutory' sites owned by local authorities. Within the allotment legislation, there are various restrictions placed on the use of allotment sites. The Government has recommended that the main restrictions on the use of allotments are repealed, in particular, decisions over the use to which plots may be put, particularly concerning use for growing flowers, site shops and the sale of produce, and the keeping of livestock. The Government recommends that these decisions be made on a site-by-site basis by the Local Authority or allotment society.

Management, Research and Guidance

English Nature produces a free leaflet 'Wildlife-Friendly Gardening' that provides information on how to develop and manage gardens for wildlife.

Allotment gardeners make an important contribution to the maintenance of biodiversity in a number of ways. Many gardeners save their own seeds, a process of selection that enhances the gene pool. The act of cultivation itself encourages a range of wild plants; allotments are important for such species, as they are becoming increasingly scarce in the surrounding countryside. Uncultivated corners of individual plots, compost bins, and untenanted areas within sites all offer significant habitats for wildlife.

Hull City Council employs an Allotments Officer who is responsible for all the council-owned allotments within the City.

Hull and East Riding Organic Gardeners Association (HEROGA) promote organic gardening and growing. They hold monthly meetings with visits to member's gardens and allotments. Members can swap seeds, plants, books and magazines and keep in touch with organic issues. The association also produces a regular newsletter.

ACTION PLAN AIMS

1. To encourage provision of bird and bat boxes in gardens and allotments.
2. To promote supplementary feeding of garden birds, especially during the winter and spring.
3. To encourage people to plant native trees and shrubs in their gardens rather than exotic ornamental species.
4. To promote wildlife friendly gardening e.g. old CD's on wire as safe and effective bird deterrents, beer traps for slugs.

HABITAT ACTION PLAN

5. To support planting of native hedgerows around allotment boundaries.
6. To encourage creation of garden ponds to attract wildlife to gardens.
7. To discourage the use of potentially harmful chemicals in gardens and allotments and promote organic alternatives.
8. To develop demonstration wildlife gardens.
9. To collect information on species present in gardens and allotments.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation Planting of native shrubs and trees.	Ongoing: All new planting in public areas to be with native species where possible.	KuHCC (Planning, Parks and Open Spaces)	3
Habitat Management and Protection Planting of native hedgerows around allotments for nature and security. Provision of bird and bat boxes. Continue to manage Pearson Park Wildlife Garden.	Ongoing: Plant native hedgerows around allotments where appropriate. Short Term: 10 bird and bat boxes each year. Ongoing: Extend network of bat boxes and bird specific boxes throughout targeted habitats in Hull. Ongoing: Continue management of Pearson Park Wildlife Garden.	KuHCC (Parks and Open Spaces) EA, HVWG, EYBG, KuHCC KEG	5 1 8
Advisory Encourage environmentally friendly gardening e.g. alternatives to pesticides, non-peat products, safe bird deterrents, pond creation, native plants. Encourage supplementary feeding of birds in winter and spring. Encourage planting of native trees and shrubs rather than exotic ornamental species.	Short Term: Article in press. Medium Term: Produce leaflets and posters Short Term: Article in press Short Term: Produce a guide to encourage planting schemes using local species.	YWT, KuHCC (Planning, LA 21) HVWG, RSPB KuHCC (LA21), University of Hull, YWT.	1, 2, 3, 4, 6, 7 2 3

HABITAT ACTION PLAN

Promote composting.	<p>Short Term: Wesley Worm Composting Pack to be published and promoted.</p> <p>Short Term: Article in press.</p> <p>Medium Term: Provision of compost bins.</p>	<p>YWT</p> <p>BGEEP, KuHCC (Recycling Officer)</p>	7
<p>Future Research and Monitoring</p> <p>Encourage householders to send details of species spotted in their gardens to a record centre.</p>	<p>Short Term: Articles in press focusing on specific species (e.g. toads, butterflies, amphibians) and request for records.</p>	<p>HVWG, YBC, YWT</p>	9
Monitoring of bird species.	<p>Ongoing: Monitoring of bird species.</p>	<p>HVWG, EYB</p>	9
<p>Communications and Publicity</p> <p>Develop abandoned allotment plots into example wildlife gardens.</p>	<p>Short Term: Develop two plots as demonstration wildlife gardens.</p> <p>Medium Term: Encourage development of wildlife gardens using demonstration plots as example.</p>	<p>BGEEP, FOE, KuHCC (Parks and Open Spaces)</p>	8
Establish demonstration backyard garden at Pearson Park Wildlife Garden.	<p>Short Term: Highlight existence of wildlife garden, through press articles and events at the Park.</p> <p>Medium term: Establish demonstration backyard garden at Pearson Park Wildlife Garden.</p>	<p>KEG</p> <p>YWT, HEROGA</p>	8 2, 4
Wildlife Gardening Award Scheme.	<p>Short Term: Encourage participation in the Wildlife Gardening Award Scheme.</p>	<p>YWT</p>	1, 2, 3, 4, 6, 7, 9

WHAT WE CAN ALL DO

- š Put bird and bat boxes in suitable places in our gardens.
- š Feed the creatures in our gardens by planting nectar-rich flowers for butterflies and other insects and feeding garden birds. Grow suitable food plants for butterfly caterpillars.
- š Consider planting native trees and shrubs rather than ornamental varieties.

HABITAT ACTION PLAN

- § Make a wildlife pond to attract amphibians and insects.
- § Avoid over-tidiness - many of our butterflies depend on nettles as food for their caterpillars, seedheads left on over winter provide food for birds and broken plant pots can give shelter to amphibians and reptiles.
- § Avoid use of chemicals – slug pellets can poison birds, amphibians and mammals.
- § Use sustainable peat alternatives.
- § Send for information on gardening for wildlife, such as English Nature's free leaflet on '*Wildlife Friendly Gardening*'.
- § Look out for wildlife articles in gardening magazines.

LINKS WITH OTHER ACTION PLANS

This plan should be considered along with those for **Grassland, Parks, Cemeteries and Golf Courses, Trees, Scrub and Hedgerow** and **Freshwater Habitats**. Related Species Action Plans are those for **Elm, Song Thrush, Spotted Flycatcher, Brimstone Butterfly, Common Toad** and **Hedgehog**.

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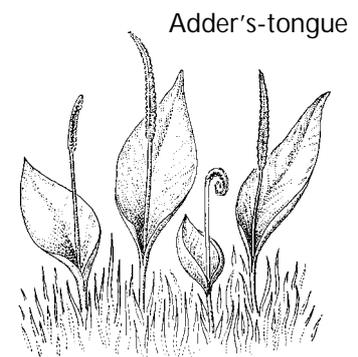
Grassland

Grassland is defined as open habitat, with less than 30% tree or shrub cover, in which grasses dominate. Different combinations of environmental conditions and management have created a wide range of grasslands in Britain. These can be categorised on the basis of their soil (acid, neutral or calcareous) and drainage status ('wet' or 'dry'). Grasslands can also be described as 'unimproved', 'semi-improved' or 'improved', depending on the intensity of agriculture.

This plan covers a range of grasslands found within Hull, most of which are neutral wet grasslands, although there are some dry sites and several areas where calcareous grassland has developed on abandoned industrial land. There is a small number of unimproved grassland relics but most of the grassland in the City is semi-improved or improved.

Unimproved and Semi-natural Grassland

This category includes all grasslands with a largely semi-natural character that have not been treated with herbicides or artificial fertilisers. It includes enclosed and managed grassland such as hay meadows and pastures, a range of grasslands that are covered with water periodically, permanently moist or even waterlogged grassland, and unmanaged grassland. Unimproved neutral grasslands are rare. These grasslands are colourful because they contain a high proportion of broad-leaved flowering species, such as Cowslip (*Primula veris*) and Common Knapweed (*Centaurea nigra*), relative to grasses. Some characteristic species, such as Adder's-tongue (*Ophioglossum vulgatum*) are now very rare.



Improved Grassland (Agricultural land, amenity grassland, grass verges)

This type of grassland includes land in use for agriculture that is regularly treated with slurry, artificial fertiliser and/or herbicides, often following reseeding. This produces a species-poor grassland that is usually dominated by Perennial Rye Grass (*Lolium perenne*), and sometimes Clover (*Trifolium* spp.). Improved agricultural grassland is generally very poor for wildlife. Plant diversity on such habitats is often poor because fertiliser use stimulates the growth of competitive grasses and a small number of common broad-leaved plants, such as Common Ragwort (*Senecio jacobaea*) and Dock (*Rumex* spp.), at the expense of other plant species.

Some areas of improved grassland are managed for recreation and amenity, for example sports pitches, playing fields, public parks, and golf courses. Amenity grassland maintenance normally involves intensive management of a limited number of grass species by frequent cutting, fertiliser application, herbicide use, watering and drainage. It is generally dominated by Perennial Rye Grass, but other grasses are used for special purposes. Intensively managed amenity grassland is of little biodiversity value because of the limited variety in plant species and structure. However, there is potential to improve the biodiversity of many of these sites without losing their amenity value.

Other improved grassland habitats include features associated with roads, such as central reservations and roundabouts and grass verges. Grass verges are also found along railways and rivers. These habitats vary in wildlife interest. In some cases these habitats support important plants and animals and also provide corridors, which help species move from place to place. Such habitats are becoming increasingly valuable for wildlife, as other grassland habitats are lost.

CURRENT STATUS

Unimproved and Semi-natural Grassland

Unimproved neutral grassland is now rare, and subject to further threat as pressure increases to maintain or increase farming profitability. There are currently fewer than 10,000 hectares of unimproved neutral grassland remaining in England.

HABITAT ACTION PLAN

Excellent examples of neutral unimproved grassland are found at Priory Meadows and Snuff Mill Fields, north-west of the City. These old permanent pastures have been maintained traditionally for over 100 years. They are dominated by wet grassland and contain temporarily filled hollows, ponds and ditches that provide important breeding grounds for frogs and newts. They are also important feeding habitats for Kestrels and Barn Owls. They support a rich variety of flowering plants and several species characteristic of unimproved grassland, including Adder's-tongue, Cowslip, and Pepper Saxifrage (*Silene silaus*).

Improved Grassland (Agricultural land, amenity grassland, roadside verges)

Improved grasslands account for the major part of all grassland found in rural and urban parts of the UK. In the past 50 years improved grasslands have increased by approximately 90% in area due to the increased intensification of farming. This expansion has been largely at the expense of other habitats of high biodiversity importance, particularly unimproved grasslands. Grasslands improved for agricultural are found on the outskirts of the city and in the surrounding countryside.

Pockets of closely mown amenity grassland are found throughout the City, especially around housing estates. Whilst it is clearly necessary to regularly maintain amenity areas, many playing fields and school grounds contain little used areas of grassland around the edges or in awkward corners which could be considerably enhanced for wildlife.

The verges and other grassland associated with roads in the City are typically urban, but they do provide a sizeable area of grassland. The grass verges along the river and drains are home to some unusual plant species and are very important in the green network.

CURRENT FACTORS AFFECTING GRASSLAND

- § Loss of grassland to development on the urban fringe and within the City has been extensive. Several grassland areas that have colonised naturally on disused railway sidings in the City have been lost to industrial and housing development in recent years.
- § The full wildlife potential of many hectares of grassland throughout Hull is not being realised due to a lack of management. Previously grazed pastures have been abandoned and are gradually losing their unique and rich diversity of plant and animal communities as commoner, vigorous plant species invade. Unmanaged ecological succession, particularly the invasion of scrub and development of woodland, has led to loss of grassland. Reintroduction of management could reverse this process.
- § Recreational pressure and vandalism, fly-tipping and adding nutrients through dumping of garden refuse has reduced the wildlife value of many grassland sites.
- § Illegal horse grazing is a particular problem within Hull. Tethered horses are limited to a small area leading to overgrazing of the grasses and wildflowers and loss of sensitive species. Areas of bare, trampled ground increase and problem plants, particularly Thistles and Docks, readily take hold. Grassland overgrazed by horses is of little or no conservation value. Dung tends to be mostly in latrine areas that are left ungrazed, putting more pressure on the remaining grassland. These latrine areas are poor in plant species because they are over-enriched with nutrients from the dung.
- § On the fringes of the City agricultural intensification has led to a reduction in the biodiversity value of many grasslands.
- § Over-management of improved grassland, mainly regular mowing and the application of fertilisers and pesticides, has reduced the wildlife value of many areas.
- § Roadside verges suffer contamination from passing vehicles and road run-off, particularly salt used on roads in winter.

HABITAT ACTION PLAN

- § Road improvement schemes have reduced the area of grass verge.
- § Flail cutting of grass verges is detrimental to most species.

CURRENT ACTION

Legal Status

Neutral grasslands, which are managed under Countryside Stewardship Schemes, have protection from agricultural improvements through the 10-year agreements.

A number of grassland sites within the City are designated as Sites of Nature Conservation Interest (SNCI). Both Priory Meadows and Snuff Mill Fields are proposed Local Nature Reserves and potential SSSI.

Management, Research and Guidance

The UK Biodiversity Steering Group (UKBSG) has produced a Habitat Statement for unimproved neutral grasslands, indicating the need for future conservation measures to maintain the extent and quality of species-rich neutral grassland in the UK. Targets are also set for the restoration of degraded neutral grasslands and re-establishment of their range.

A Habitat Statement for improved grassland has also been produced by the UKBSG. The suggested conservation direction is to enhance areas of improved grassland which are of importance for wildlife and restore semi-natural vegetation on sites where this would enhance their value for wildlife.

Support for management of old meadows and pasture is available through Countryside Stewardship, which is the Government's principal scheme for conserving and improving the countryside. With the aid of a Countryside Stewardship grant a ten-year management programme for Priory Meadows and Snuff Mill Fields was implemented in 1992. The aim is to manage the existing grasslands and hedgerows to maintain and enhance their substantial wildlife value and to allow the public access for quiet, informal recreation.

Other grassland sites within the City are cut once or twice a year for hay. However, over-grazing by horses is reducing the variety of plants on such sites leading to poor quality hay and making the desired management uneconomic.

ACTION PLAN AIMS

1. To determine the current grassland resource and quality.
2. To continue biennial monitoring of grassland plants species.
3. To remove horses illegally grazed on grasslands important for nature conservation.
4. To relax mowing regime on important grassland areas.
5. To continue Countryside Management Scheme at Priory Meadows and Snuff Mill Fields.
6. To achieve Local Nature Reserve status for Priory Meadows and Snuff Mill Fields.

HABITAT ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Removal of horses illegally grazing on important grasslands.	Short Term: Removal of horses from Priory Meadows, Snuff Mill Fields and North Carr. Medium Term: Remove horses from other important grasslands e.g. Rockford Fields.	KuHCC (Property)	3
Relaxation of mowing regime on grass verges and river/drain banks.	Short Term: Review mowing regime and identify sites for pilot scheme. Medium Term: Relax mowing regime where possible and develop management plan.	KuHCC (Highways), EA	4
Leave margins uncut on amenity grassland.	Short Term: Develop two example sites and produce management plan. Medium Term: Uncut margins on half of the City's playing fields. Long Term: Uncut margins on all playing fields.	KuHCC (Parks and Open Spaces)	4
Advisory No advisory action proposed.			
Future Research and Monitoring Determine current grassland resource.	Medium Term: Produce distribution map of grassland within the City.	KuHCC (Planning)	1
Determine most valuable grassland sites within the City and produce appropriate management regimes.	Medium Term: Survey grasslands and produce management regimes.	KuHCC (Planning)	1
Monitoring of grassland plant species, including fixed transect survey of Pepper Saxifrage and colony counts of Adder's-tongue.	Ongoing: Biennial monitoring of grassland species.	HNHS	2

HABITAT ACTION PLAN

<p>Communications and Publicity</p> <p>Provide information panels for demonstration field margins.</p>	<p>Short Term: Apply for grant funding for information panels.</p>	<p>HBP</p>	<p>4</p>
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WHAT WE CAN ALL DO

- § Help protect unimproved grassland.
- § Ask for edges of local playing fields and school fields to be left uncut to allow wild flowers to grow and provide habitat for many insects, birds and small mammals.
- § Be aware that grass verges left uncut may be to make them more attractive habitats for wildlife, not that they have been neglected.

LINKS WITH OTHER ACTION PLANS

Grassland habitats are also found within **Gardens and Allotments, Parks, Golf Courses and Cemeteries** and **Industrial Land**. Grassland is important for plant species such as **Cowslips**, mammals such as the **Harvest Mouse**, and also amphibians, including **Common Toads** and **Great Crested Newts**.

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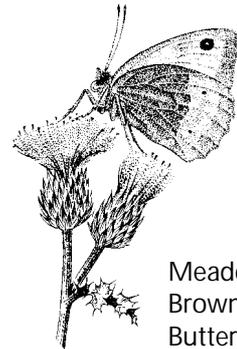
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Industrial Land

This plan includes areas of naturally vegetated urban land and industrial land, including railway land, dockland and other under-used sites. Industrial sites are often secure and undisturbed by human activity, bringing benefits for a wide range of birds and flowering plants. Intensification of agriculture and increasing development on greenfield sites is making wildlife refuges scarce elsewhere. With correct management the range of wildlife that industrial habitats support can be very varied.

The soil on many abandoned industrial sites is often poor and may contain poisons such as heavy metals. The lack of nutrients encourages a wide range of plants. The open ground is important for lichens, butterflies, moths, beetles and bees. These sites are common within urban areas and are often close to where people live.

Both active and disused railways provide important wildlife corridors linking areas of semi-natural habitats. Along the active railway lines, little vegetation survives on the track bed itself due to the regular use of herbicides. However, the rough grassland and woodland found alongside railways attracts a range of insects, particularly butterflies, as well as many different mammals and birds. Embankments and, in particular, odd pockets of land created where lines meet are havens for wildlife. Disused lines and sidings are particularly important from a conservation point of view. Railways have been important in assisting the movement of some species e.g. Oxford Ragwort (*Senecio squalidus*); although in some cases tracks are a barrier to dispersal.



Meadow
Brown
Butterfly

Dockland can also provide important habitat for many species. In areas where dockland has been left vacant for some time, species-rich plant and animal communities have had time to develop. Demolition sites and land awaiting development also provide important habitat; such sites are very variable in nature and usually temporary. These sites are generally naturally colonised and support pioneer plant and animal communities. Plant species such as Rosebay Willowherb (*Chamerion angustifolium*) and Butterfly-bush (*Buddleja davidii*) are characteristic of the early stages among the brick rubble of recently demolished sites, and over time are gradually replaced by longer-lived plants, shrubs and trees. Areas of land awaiting development often provide unmanaged rough grassland habitats and small mammals such as voles, mice and shrews will live there and become prey for Weasels (*Mustela nivalis*), Stoats (*Mustela erminea*), Kestrels (*Falco tinnunculus*) and Sparrowhawks (*Accipiter nisus*).

CURRENT STATUS

Active and disused railway lines span nearly all of the country. There are about 17,700 kilometres of British railway lines and about 30,000 hectares of adjacent land. Most cities also include areas that are under-used or disused, although such sites are often temporary in nature.

The active and disused railway lines of Hull form a significant network of diverse habitats across the city, some 40 kilometres in length, and make a valuable contribution to the extent of semi-natural habitat in Hull. The verges and embankments of the active lines are ideal for wildlife with large areas of grassland, Bramble and Hawthorn scrub and some notable wooded sections. Although very different in character the disused lines, such as the Hull to Withernsea line, are equally valuable. The disused sidings and tracks provide a habitat for grassland species now otherwise uncommon in the area, for example Kidney Vetch (*Anthyllis vulneria*) and Toadflax species. The railway sidings on Calvert Lane are home to breeding birds such as Sparrowhawk, Willow Warbler (*Phyllocopus trochilus*), Blackcap (*Sylvia atricapilla*), Lesser Whitethroat (*Sylvia curruca*) and possibly Linnet (*Carduelis cannabina*), as well as some commoner species. Butterflies identified on this site include Meadow Brown (*Maniola jurtina*), Ringlet (*Aphantopus hyperanthus*) and Small Skipper (*Thymelicus sylvestris*). The Calvert Lane site also contains areas of naturally regenerating Birch woodlands. Woodlands are a scarce resource in the City so this area is of particularly high value. The importance of railway land for wildlife within Hull has been recognised and a

HABITAT ACTION PLAN

number of the disused railways and sidings have been designated as Sites of Nature Conservation Interest (SNCI).

Within Hull, industrial land accounts for most of the land awaiting development. This includes the site of the former Sculcoates power station and the disused areas of the docks. Hull is a major commercial port and a large area of the city is occupied by dockland, approximately 20 hectares of which are unused at present. The disused docks and surrounding areas used to be home to many plant species from around the world that were introduced as seed as a result of commercial activity. Some of these species spread throughout the city and further afield. The introduction of non-native plant species on to docks has become rare, nevertheless, these urban sites are important for both native species and established foreign plant species. Uncommon species which occur on the disused docks of Hull are Yellow-wort (*Blackstonia perfoliata*), Viper's-bugloss (*Echium vulgare*) and Great Mullein (*Verbascum thapus*).

There are other areas of land around the City that can also be described as industrial land, such as demolished sites and current development sites. These temporary sites are important for allowing pioneer plant species to survive and spread throughout the city.

CURRENT FACTORS AFFECTING INDUSTRIAL LAND

- § The current Government policy promotes the use of previously-developed (brownfield) land for development. This policy protects many greenfield sites, but also threatens to remove the valuable wildlife refuges that develop on other land within urban areas. Disused railway land is often subject to development pressure, both for housing and employment. Priory Park and Summergroves are recent examples of this and there are many other such areas within Hull where there is pressure for development. Much of the disused dockland within the City has been developed for commercial or residential use, for example St. Andrew's Quay and Victoria Dock Village.
- § There are pressures for public access routes along disused railways. This leads to conflicts of interest e.g. off-track mountain bikers causing disturbance to wildlife such as birds nesting in wood embankments. This problem is evident at the disused railway land on Calvert Lane.
- § Derelict land is not always regarded as having wildlife potential. Many derelict sites are considered eyesores that attract public abuse such as fly tipping, bonfires, motorbike scrambling and anti-social behaviour. Lack of management on sites that have been abandoned for some time may result in a loss of biodiversity.

CURRENT ACTION

Legal Status

Many of the under-used industrial sites within Hull are designated as SNCI, however most are proposed for development and may be lost in the future.

Management, Research and Guidance

Railtrack are in the process of producing a Biodiversity Action Plan for their whole network. The plan will identify important habitats on and alongside active railways and recommends management to enhance the wildlife interest whilst at the same time allowing routine maintenance.

KuHCC have ensured protection of a colony of Common Lizards (*Lacerta vivipara*) on the site of the new Community Super Stadium and ensured developers provide a suitable habitat for the lizards when the development is complete. KuHCC have also required developers to translocate a colony of Bee Orchids (*Ophrys apifera*) on a development site at Sutton Fields.

HABITAT ACTION PLAN

ACTION PLAN AIMS

1. To recognise the biodiversity value of derelict sites in the location and design of new developments.
2. To determine the distribution of industrial land with significant wildlife value.
3. To provide improved information about the biodiversity value of derelict sites for planners and developers.
4. To ensure species protection or appropriate mitigation where sites are to be developed.
5. To raise public awareness of the biodiversity value of derelict sites.
6. To assist in the production of a national Biodiversity Action Plan for the active rail network.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Where sites are to be developed consider translocation of important species or appropriate mitigation.</p>	<p>Short Term: Translocation of Bee Orchids on development site at Sutton Fields.</p> <p>Short Term: Relocation of Common Lizards from site of the new Community Super Stadium, and ensure appropriate mitigation.</p>	<p>KuHCC (Planning)</p> <p>KuHCC (Property), EN, YWT</p>	1, 3, 4
<p>Habitat Management and Protection</p> <p>Consider new SNCI designations on important sites.</p>	<p>Medium Term: Review of SNCI.</p>	<p>KuHCC (Planning)</p>	5
<p>Advisory</p> <p>Assist in production of Railtrack Biodiversity Action Plan</p>	<p>Short Term: Provide information to Railtrack about habitats and species on Hull's active rail network.</p>	<p>KuHCC (Planning), NEYEDC</p>	6
<p>Future Research and Monitoring</p> <p>Identify neglected sites of particular significance for biodiversity and outline any management needs.</p>	<p>Medium Term: Review of SNCI.</p> <p>Ongoing: Monitoring of plant species, including quantitative surveys of Yellow-wort and Bee Orchid.</p>	<p>KuHCC (Planning) HNHS</p>	2, 3

HABITAT ACTION PLAN

	Ongoing: Monitoring of bird species.	HVWG, EYB	
Communications and Publicity Highlight the importance of industrial land for wildlife.	Short Term: Article in press on value of industrial land. Medium Term: Produce a leaflet on value of railways for wildlife.	YWT Railtrack	5

WHAT WE CAN ALL DO

- § Keep an eye out unusual plants on industrial sites and send records to the Hull Biodiversity Partnership.
- § Keep a corner of sites as mini-wildlife reserves.
- § Create a wildlife pond.

LINKS WITH OTHER ACTION PLANS

This action plan should be considered alongside those for **Grassland, Trees, Scrub and Hedgerows**, and **The Built Environment**. Species associated with this habitat for which plans have been produced include **Linnet, Common Blue Butterfly, Yellow-wort, Bee Orchid, Wall Ferns** and **Lichens**.

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Parks, Golf Courses and Cemeteries

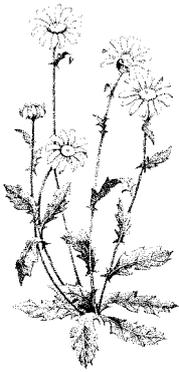
Parks

The town-park movement in the nineteenth and twentieth centuries provided ornamental parks for people living in urban areas. Initially, many were created as pockets of countryside-like open space in which people could walk. As the number of people using the parks grew, policies were introduced to keep the public off the grass and on tougher paths. In the latter part of the nineteenth century, interest in gardening led to the introduction of more formal flowerbeds. As a result of their origins, many public parks are recreational and attractive retreats rather than rich wildlife reserves. However, there is an increasing tendency to reduce the formalised appearance and return to areas more like the countryside.

Golf Courses

As other wildlife habitats disappear, golf courses are becoming increasingly important for wildlife, especially in urban areas. When landscaped sensitively golf courses can be ideal habitats for plants and animals. Large areas are manicured, but there is a sizeable amount of rough, which has some importance for wildlife. Trees and hedges are used for nesting, roosting and food sources for several species of birds. Wild flowers, invertebrates and small mammals can be found in the rough areas. Ponds and other watercourses can be rich in invertebrate, plant and bird life.

Churchyards and Cemeteries



Ox-eye
Daisy

Many churchyards were originally grasslands enclosed either when the church was built or as a later extension. They range from manicured lawns and tended flowers beds to neglected wildernesses. Churchyards are often refuges for meadow plants such as Cowslips. Over 100 species of plant may occur in an average sized churchyard. Typically, older churchyards have more native species, with mature Yew (*Taxus baccata*) and Beech (*Fagus sylvatica*) dominating, mixed with Lime and exotic conifers which were often planted in Victorian times. Shrubs including Holly (*Ilex aquifolium*) and climbers like Ivy (*Hedera helix*) are also typical. Churchyards and cemeteries are often similar in terms of wildlife and both may attract wildlife because of their lower disturbance and greater habitat diversity compared to surrounding areas. The gravestones themselves support a huge variety of lichens. Older stones laid on their side may provide basking sites for reptiles such as the Common Lizard (*Lacerta vivipara*). Many cemeteries support an important range of wildlife and, in some cases, act as valuable refuges for rare and uncommon species.

Parks, cemeteries and golf courses all provide insect rich feeding areas for bat species especially pipistrelles (*Pipistrellus* spp.) and Whiskered bats (*Myotis mystacinus*).

CURRENT STATUS

Parks

Public parks are found in urban areas all over Great Britain. Parks are generally well used and their high level of management appreciated. However, there is scope to improve their wildlife value. The open space that public parks provide in Hull is invaluable. Many of the public parks in Hull are designated by Hull City Council as Sites of Nature Conservation Interest (SNCI), for example, West Park, East Park, Pickering Park, and Pearson Park. Many of the parks within Hull contain lakes or ponds that are very important for birds.

Golf Courses

There are over 2,500 golf courses in Britain, covering about 1,500 km², at least 0.5% of the land area. There are approximately 90 golf courses in England that are designated as SSSI, because apart from the intensively managed trees and greens they have other habitats with high wildlife value. Many other golf courses exist within designated Heritage Coast sites, Areas of Outstanding Natural Beauty, or listed Historic Parklands.

HABITAT ACTION PLAN

Hull's golf courses, situated on the fringes of the city on former agricultural land, contain many well-established trees and hedgerows, wetlands and areas of rough grassland. Springhead Golf Course and Sutton Park Golf Course, between them cover an area of over 50 ha; they are designated as SNCI and are important links in the green network.

Churchyards and Cemeteries

There are over 20,000 churchyards and cemeteries in England covering about 10,000 ha. Hull has some important churchyards and many cemeteries distributed across the city. The churchyard at Sutton-upon-Hull with its mature trees and borders of long grassland is a haven for wildlife. Twelve cemeteries, covering an area of nearly 70 hectares, are recognised as SNCI. The old General Cemetery on Springbank West, Northern Cemetery on Chanterlands Avenue and Hedon Road Cemetery also act as important links in the green network.

CURRENT FACTORS AFFECTING PARKS, GOLF COURSES AND CEMETERIES

- § Parks are generally provided for sport and recreational activities and this use may sometimes conflict with conservation.
- § Some parks are too intensively managed, making them unattractive to wildlife. Most mature trees in the parks lack under-storey layers of bushes, wild flowers or bulbs of native origin.
- § Pesticides and fertilisers are often applied to golf courses and there are concerns about their potential effects on the habitat and associated wildlife.
- § Intrusive lighting from clubhouses, car parks and driving ranges may disturb animals and birds, causing them to move from the habitat.
- § When high numbers of people use golf courses the disturbance affects many species, particularly birds.
- § Some churchyards and cemeteries are too intensively managed leading to loss of biodiversity; however, lack of management can also cause problems.

CURRENT ACTION

Legal Status

Planning Policy Guidance exists for development of new golf courses (PPG 17). There is no local planning guidance for golfcourses.

Management, Research and Guidance

Most of the parks within Hull are highly managed and maintained.

The Living Churchyard & Cemetery Project being promoted through Wildlife Trusts, the Council for the Care of Churches, English Nature and other agencies, supports the principles and practices of nature conservation in all types of burial grounds throughout the country. The project originally focused on rural churchyards and burial grounds. However, while continuing its work in this field it has also developed into urban and secular burial grounds.

The Yorkshire Wildlife Trust organises the 'Yorkshire Living Churchyard Project'. The Project aims to survey wildlife present in churchyards, provides information and gives management advice for the protection of wildflowers, lichens, butterflies and other wildlife. There are training days for YWT and parish volunteers in surveying and management, and leaflets are available for display in churches.

The British Lichen Society produces a 'Churchyard Lichens' fact sheet, which gives information on lichens, the importance of churchyards and how people can help.

HABITAT ACTION PLAN

ACTION PLAN AIMS

1. To plant native hedgerows along boundaries, and enhance existing hedgerows by further tree or shrub planting using plants of local origin.
2. To make ponds more wildlife friendly e.g. indented margins, planting of native marginal vegetation.
3. To extend the provision of bird and bat boxes.
4. To create areas of less frequently mown grass in parks, golf courses and cemeteries and manage some areas as meadow.
5. To provide basking places for reptiles on golf courses, such as paving slabs in areas of rough away from busy thoroughfares.
6. To encourage local churches and cemeteries to participate in 'Living Churchyards and Cemeteries Project'.
7. To develop wildlife areas within parks and as 'contemplative zones' in cemeteries.
8. To promote planting of commemorative native trees and shrubs in gardens of remembrance.
9. To increase awareness of the value of parks, cemeteries and golf courses for wildlife.
10. To increase knowledge of species present in parks, golf courses and cemeteries.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Planting of native hedgerows alongside fencing, and enhance existing hedgerows by further tree or shrub planting.</p>	<p>Medium Term: Planting of native hedgerows where appropriate. Ongoing: Maintenance and enhancement of hedgerows.</p>	<p>KuHCC (Parks and Open Spaces), Schools</p>	1
<p>Improve park ponds.</p>	<p>Short Term: Manual removal of unwanted plants, or use species-specific herbicides. Medium Term: Improve marginal areas of 50% of ponds.</p>	<p>KuHCC (Parks and Open Spaces)</p>	2
<p>Provision of bird and bat boxes in parks, golf courses and cemeteries.</p>	<p>Short Term: Erect Spotted Flycatcher boxes in cemeteries.</p>	<p>EA, HVWG, KuHCC (Parks and</p>	3

HABITAT ACTION PLAN

<p>Develop wildlife gardens.</p> <p>Less frequent mowing regime in some parks, golf courses and less frequently visited areas of churchyards and cemeteries.</p> <p>Provide basking places for reptiles.</p>	<p>Ongoing: Extend the network of bird and bat specific boxes in targeted habitats throughout the City.</p> <p>Short Term: Develop wildlife garden in north-east corner of East Park.</p> <p>Long Term: Develop wildlife gardens in 50% of Hull's Parks.</p> <p>Short Term: Manage one area of a park as demonstration meadow.</p> <p>Medium Term: Extend the area of parks managed as meadow.</p> <p>Short Term: Provision of 10 basking places for reptiles on each golf course.</p>	<p>Open Spaces)</p> <p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Parks and Open Spaces)</p>	<p>7</p> <p>4</p> <p>5</p>
<p>Advisory</p> <p>Increase awareness of wildlife present in parks.</p> <p>Encourage planting of commemorative native trees in cemeteries.</p> <p>Encourage people not to throw food into ponds for the ducks.</p>	<p>Medium Term: Provide visitor packs for urban parks.</p> <p>Short Term: Develop area for people to plant trees in one of the cemeteries.</p> <p>Medium Term: Explore possibility of green burial site.</p> <p>Ongoing: Encourage participation in 'Trees for Babies' scheme.</p> <p>Short Term: Encourage people to feed ducks on the pond surroundings rather than in the water.</p> <p>Medium Term: Children's competition to design duck feeding signs for Pearson Park as anti-fouling measure.</p>	<p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Parks and Open Spaces)</p> <p>YWT</p> <p>YWT (HWW)</p>	<p>9</p> <p>8</p> <p>2</p>
<p>Future Research and Monitoring</p> <p>Monitoring of bird species.</p>	<p>Ongoing: Monitor bird species in parks, golf courses and cemeteries.</p>	<p>HVWG, EYB</p>	<p>10</p>

HABITAT ACTION PLAN

Monitoring of plant species.	Ongoing: Monitor plant species in parks, golf courses and cemeteries.	HNHS	10
Communications and Publicity Highlight the importance of churchyards and cemeteries for wildlife.	Medium Term: Produce churchyards and cemeteries leaflet.	YWT	9
Encourage churchyards and cemeteries to take part in 'Living Churchyards Project'.	Short Term: Press article to highlight scheme. Medium term: Two cemeteries participating in scheme.	YWT, KuHCC (Parks and Open Spaces)	6

WHAT WE CAN ALL DO

- § Encourage your local churchyard or cemetery to get involved in the Yorkshire Living Churchyard Project.
- § Help record plant, animal and insect species and report these to the Hull Biodiversity Partnership.

LINKS WITH OTHER ACTION PLANS

This plan should be considered along with those for **Grassland, Freshwater Habitats, Gardens and Allotments** and **Trees, Scrub and Hedgerows**. Parks, Golf Courses and Cemeteries also provide important habitat for species such as **Elm, Cowslip, and Lichens**. Amphibians and reptiles such as **Common Toad**, and **Common Lizard**, birds including **Song Thrush, Mute Swan** and **Spotted Flycatcher** and mammals such as **Hedgehogs** and **Pipistrelle bats**.

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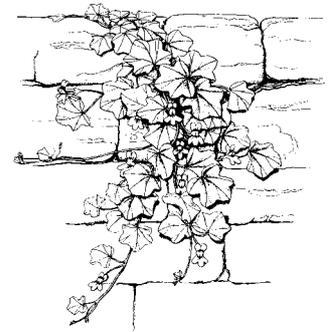
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The Built Environment

This built environment covers any man-made structure and includes domestic and industrial buildings, walls, bridges and tunnels, hard surfaces such as pavements and car parks and other structures such as electricity pylons. Many species that would normally use natural features such as caves, cliffs, rocks and bare ground have adapted to use man-made sites, as natural sites have decreased.

The built environment is home to a wide range of plants, birds and mammals. Ferns and flowering plants are found on buildings and walls, and lichens are can be found on many structures. Birds such as Swallows (*Hirundo rustica*), House Martins (*Delichon urbica*) and Swifts (*Apus apus*) use buildings instead of their traditional cliff habitats and Pipistrelle bats (*Pipistrellus* species) often form roosts in modern buildings, rather than hollow trees.



Some species that use the built environment are regarded as pests and attempts are often made to try and control them, such as rats and cockroaches. However most species do not cause damage or disturbance and should be tolerated or even encouraged. Some species using the built environment are in decline and are protected by law.

CURRENT STATUS

The built environment can be found across the UK. It is concentrated in lowland areas with most major towns and cities situated next to the coast or rivers. Built environment features such as roads and railways connect almost all man-made structures into a nation-wide network. The built environment is a major and growing part of the modern landscape.

Nearly 80% of Hull can be classed as 'Built Environment'. It is therefore very important that it is recognised as an important habitat for wildlife. Many buildings in the Old Town are particularly valuable for Ferns and Lichens, and many newer buildings provide homes for House Martins, Pipistrelle bats and Whiskered bats.

CURRENT FACTORS AFFECTING THE BUILT ENVIRONMENT

- § Comparatively little is known about the built environment compared with more recognised habitat types. The requirements of many 'urban' species are poorly understood and options for management are unclear.
- § Legal powers exist to protect some of the species using the built environment; however, these species cannot be protected if their location is unknown. Until information is available it is difficult to address the conservation needs of this habitat.
- § Demolition, redevelopment and disturbance are typical within the urban environment. Many of the characteristic plants and animals of the built environment are tolerant of disturbance; however, others are not and conservation effort must be targeted at the vulnerable species. Many sites become occupied by wildlife when the human use of the building has finished, but frequently this is only an intermediate stage before the demolition of the buildings and redevelopment of the site.
- § Many species, particularly birds and mammals, have habitat needs which extend over numerous landscapes. In urban areas land is owned by many different people; this makes effective management for wildlife difficult.

HABITAT ACTION PLAN

- § It is sometimes impractical to protect urban habitats. Retention of certain built habitats would sometimes prevent the proper maintenance of buildings and structures or the effective economic use of land.
- § Many sites are subject to almost constant human and mechanical disturbance, including noise and light pollution.
- § Many lichens are very sensitive to air pollution. Surface water run-off is often contaminated with oil or salt from roads that can affect the plant species that are able to grow. Insects also may not tolerate air pollution therefore fewer insect eating birds are found in built up areas. Former industrial sites may have heavy metal contamination.
- § Some invasive alien plant species can be a problem in urban areas as they displace native species.

CURRENT ACTION

Legal Status

No building or structure is currently protected by any statutory or non-statutory wildlife designation. It is probable that few, if any buildings would meet current criteria for designation.

The demolition of buildings and other structures does not always need planning permission so the retention of buildings and other examples of the built environment are not necessarily regulated by the planning system. New buildings and structures usually require planning permission, as does alteration of existing buildings.

Listed buildings receive some protection from the Planning (Listed Buildings and Conservation Areas) Act 1990. Such buildings require 'Listed Building Consent' before they can be destroyed or altered. Buildings in Conservation Areas also require planning permission for complete demolition. However, relatively few buildings and structures are protected by this legislation.

Complying with legal requirements relating to public safety or dangerous structures may threaten important sites.

Bats often roost in buildings and their roosts are fully protected under Schedule 2 of the Conservation (Natural Habitats etc) Regulations, 1994. The Wildlife and Countryside Act (1981) gives very full protection to bats because of their special requirements for roosting. It is also illegal intentionally to damage, destroy, or obstruct access to any place that a bat uses for shelter or protection, or to disturb a bat while it is occupying such a place. Bats often return to the same places year after year and so roosts are protected even if there aren't bats there all the time. English Nature must be informed before anything is done that would affect bat roosts.

Management, Research and Guidance

There is currently no specific management for wildlife in the built environment of Hull. However, there is guidance from elsewhere that can be followed up.

ACTION PLAN AIMS

1. To ensure the planning authority secures the inclusion of features useful to wildlife through the planning process.
2. To promote retention and use of native hedges or trees as area dividers rather than walls or fences.
3. To monitor plants in the built environment.

HABITAT ACTION PLAN

4. To highlight the importance of the built environment for wildlife.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Ensure inclusion of features useful to wildlife through the planning process.</p>	<p>Medium Term: Produce 'Supplementary Planning Guidance' on building for wildlife.</p> <p>Ongoing: Ensure planned developments have features for wildlife.</p>	KuHCC	1, 2
<p>Habitat Management and Protection</p> <p>Promote use of native trees and shrubs of local provenance.</p>	<p>Ongoing: At least 50% of newly planted trees or shrubs to be native.</p>	KuHCC	2
<p>Advisory</p> <p>Provide advice on how to build and manage for wildlife.</p> <p>Provide advice to land and property owners wishing to establish the current status of bat usage.</p>	<p>Medium Term: Produce 'Supplementary Planning Guidance'.</p> <p>Ongoing: Build a database of known bat roosting sites.</p>	KuHCC NEYEDC, EYBG	1, 2 4
<p>Future Research and Monitoring</p> <p>Monitoring of plants within the built environment.</p>	<p>Short Term: Carry out survey of wall ferns.</p> <p>Ongoing: Continued monitoring of plant species.</p> <p>Ongoing: Continue monitoring Lichen species.</p>	HNHS HBP	3
<p>Communications and Publicity</p> <p>Highlight the importance of the built environment for wildlife.</p>	<p>Short Term: Article in local press.</p> <p>Medium Term: Produce leaflet.</p>		4

HABITAT ACTION PLAN

WHAT WE CAN ALL DO

- š Contribute to making the built environment more wildlife-friendly.
- š Allow lichens, mosses, ferns and flowering plants to grow on walls.
- š Incorporate access for birds and bats in new buildings or at least provide boxes on the outside.
- š Use local, native plants in landscaping schemes.

LINKS WITH OTHER ACTION PLANS

Species associated with the Built Environment for which Action Plans have been produced include **Wall Ferns, Lichens, House Martins** and **Pipistrelle bats**.

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Trees, Scrub and Hedgerows

Trees are found in many situations within the urban environment. This action plan covers woodlands, parkland, wood pasture and individual trees in streets and gardens. Deadwood habitats, hedgerows, scrub and areas of natural regeneration are also included. Trees play a vital role in the urban ecosystem, providing local benefits for wildlife. Many birds, mammals and invertebrates use trees as roosts, breeding sites and feeding areas.

Woodland

Woodland can be defined as vegetation dominated by trees more than five metres high when mature, forming a distinct though sometimes open canopy. Existing woodland, new plantations and commercial plantations are all included in the plan.

Parkland and Woodpasture

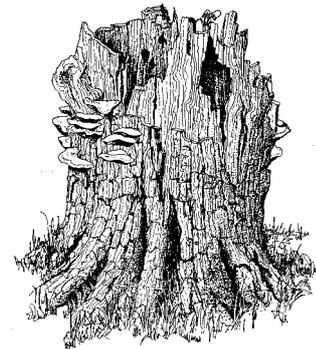
Parkland and woodpasture are the products of historic land management. They usually consist of large, open grown or high forest trees (often pollards) at various densities. Most of the trees are usually native, but there may be non-native species, which have been planted or have grown naturally.

Roadside Trees

Trees and shrubs, in streets, recreation areas or private gardens play an important part in making our urban area a more pleasant place to live. They perform a number of functions: reducing air and noise pollution, creating shade, softening the built environment and creating local distinctiveness. In urban areas, with few wooded habitats, roadside trees are especially important for wildlife.

Deadwood

Deadwood is valuable for wildlife, providing a range of habitats including dead limbs on living trees, decay columns in trunks and branches, rot holes in standing trees and standing and fallen deadwood. Deadwood habitats become available as homes for a variety of invasive organisms such as bacteria, lichens and fungi. These organisms make the habitat more easily accessible for other animals for breeding or shelter. All trees, including ornamental trees, are potential sources of deadwood, whether they are in woodlands, or as single specimens in parks, gardens, hedgerows, or avenues in towns and cities.



Scrub

Scrub can be defined as vegetation made up of either native or non-native shrubs and tree saplings ranging from scattered bushes to closed canopy vegetation, usually less than five metres tall, occasionally with a few scattered trees. Scrub is often a stage in the natural succession to woodland. The value of scrub for wildlife depends on the species present and their age range, therefore it varies over time.

Hedgerows

Hedgerows resemble woodland edge and scrub habitats; they are important habitats for butterflies and moths, farmland birds, bats and other mammals. Hedgerows may also act as wildlife corridors for many species, including reptiles and amphibians, allowing their spread and movement between other habitats.

CURRENT STATUS

The total area of woodland of 0.1 hectares and over in England is 1,097,000 hectares, representing 8.4% of the land area. Fifty-four percent of all woodland is broadleaved. Conifer woodland represents 26%, mixed woodland 12%, and open space within woodland 6%. There was a significant increase in woodland cover during the second half of the twentieth century. It is estimated that there is about 450,000 km of hedgerow in the UK.

HABITAT ACTION PLAN

A recent 10-year survey by the Forestry Commission has shown that Hull and Humberside have the lowest tree cover in England. Since 1991 the cover has increased in other parts of Yorkshire but the East Riding area has stayed static and therefore fallen behind.

Within Hull there are examples of several wooded habitats. However all examples are small and none of them is completely natural. Most of the patches of mature trees are very open with little under-storey and therefore not attractive to all woodland species.

There are several woodlands in Hull. Ings Plantation at Kingswood, which is made up of a mixture of Ash (*Fraxinus* species) and oak (*Quercus* species), and Ash Plantation at Bransholme are particularly important to the City's wildlife. Birch Plantation in Priory Yard East is made up of Birch (*Betula* species) and Willow (*Salix* species) and is one of the few naturally regenerated woodlands in the City. Disused railway sidings provide excellent examples of scrub habitats within Hull. 'The Lozenge' is a particularly good example of this. Tree-lined areas such as the Avenues, Newland Park and Salthouse Road provide a substantial number of mature trees and shrubs. Mature ash, oak and beech provide roosting holes for bat species, especially the highly tree hole dependent Noctule bat (*Nyctalus noctula*).

The City Ecological Survey in 1992 included 28 km of hedgerow, of which 95% were unmanaged and may therefore have deteriorated as both wildlife habitat and landscape features.

CURRENT FACTORS AFFECTING TREES, SCRUB AND HEDGEROWS

- § Urban expectations of tidiness (e.g. mowing, removal of fallen leaves and dead wood) often reduce the natural biodiversity.
- § There are often conflicting pressures for land use, for example development, and consequent loss of habitat.
- § Dutch Elm disease had significant adverse effect on the Elm population in Hull. Many of the avenues of Hull were once lined with Elms, nearly all of which have been lost.
- § Vandalism is a constant issue in urban woodlands, usually through firestarting; the uprooting of newly planted trees, dumping and litter accumulation.
- § Isolation and fragmentation of woodlands has resulted in poor dispersal of dependent species.
- § Invasion of non-native species such as Rhododendron, Giant Hogweed, Japanese Knotweed and to a lesser extent Sycamore have reduced the diversity of many woodlands.
- § Woodlands may be perceived as threatening places and may give cover for antisocial behaviour and crime.
- § In some woodland there is a lack of younger generations of trees producing a skewed age structure.
- § Neglect and loss of expertise of traditional tree management techniques (e.g. pollarding), leading to trees collapsing or being felled for safety reasons.
- § There are conflicts between roadside trees and the foundations of older houses; this problem is especially prevalent in Hull because of the high clay content of the soil. There is pressure to lop or remove trees to avoid or reduce structural subsidence. This leads to a significant level of damage to the urban tree stock.
- § Damage to roadside tree roots from soil compaction and erosion can be caused by people walking and car parking.



HABITAT ACTION PLAN

- § The digging of trenches close to trees can cause root damage and reduce their safe useful life expectancy, leading to their early removal. Principal causes of this type of root damage occur during the installation and maintenance of cable TV, IT networks and of statutory services (e.g. water, gas, electricity and sewerage). The construction and improvement of highways can also be locally significant.
- § If scrub is left unmanaged it will eventually turn into woodland and the important habitat that scrub provides will be lost.
- § Neglect or poor management of hedgerows, (no cutting or laying) leads to them changing into lines of trees and the development of gaps.

CURRENT ACTION

Legal Status

There is a wide range of statutory acts (namely the Town and Country Planning Act (1990) and Wildlife and Countryside Act (1981)) and local by-laws that impose a duty on local authorities and the general public to protect certain trees, habitats and the species that use them. These are supported by guidance from government, government agencies and non-government organisations in the form of circulars, advisory and practice notes.

Management, Research and Guidance

The UK Biodiversity Steering Group has published a Habitat Action Plan for Lowland wood-pasture and parkland. The objectives and targets for this habitat cover conservation, restoration and expansion. The national target is to protect and maintain the current extent and distribution of lowland wood-pasture and parkland in favourable ecological condition.

There is a wealth of management advice available with some opportunities for grant aid. The Forestry Commission administers the Woodland Grant Scheme (WGS), which provides grants for planting trees and managing woodlands. They also publish a large range of free and priced literature, from basic information leaflets to detailed technical handbooks, on forestry subjects. The Forestry Commission's 'National Inventory of Woodland and Trees in England' was completed in 2000. The inventory provides information on the extent, distribution and composition of woodland in the whole of the country.

National Tree Week is organised annually, usually in November/December, by the Tree Council to celebrate the start of the tree planting season, and to raise awareness of the importance of trees and their good management.

British Lichenological Society has produced a habitat management guide for lichens, including wood-pastures and parkland.

KuHCC Urban Forestry Department maintains trees within Hull where necessary, and carries out new planting schemes. They are also responsible for emergency tree works i.e. storm and gale damage. KuHCC Grounds Maintenance are responsible for maintaining hedges within the City. Privet hedges within our parks are cut three times per year, as are hedges belonging to selected council houses. General Privet hedges are cut twice a year and Thorn/Beech hedge is cut once per year.

ACTION PLAN AIMS

1. To protect and maintain the current extent and distribution of trees, scrub and hedgerows within the City.
2. To make greater use of native species where appropriate.

HABITAT ACTION PLAN

3. To encourage planting of native trees and shrubs, especially those of local provenance.
4. To ensure that scrub habitats are well-represented across Hull and within a range of habitats, and prevent loss of scrub habitats that support sensitive species or suites of species, particularly where scrub forms a mosaic with other habitats.
5. To increase the amount of deadwood within the City.
6. To improve hedgerow management.
7. To monitor the bird species in trees, scrub and hedgerows.
8. To increase public awareness of trees and tree planting within the City.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Increase the amount of deadwood habitat.	Ongoing: Where possible allow trees and parts of trees to mature, die, fall and decay naturally without interference. Ongoing: Crowns of trees only removed where necessary.	KuHCC (Parks and Open Spaces)	5
Ensure that scrub is well-represented across Hull and within a range of habitats.	Ongoing: Identify important scrub areas and carry out management to stop valuable scrub habitats turning to woodland.	KuHCC (Parks and Open Spaces)	1, 3
Plant hedges in suitable habitats.	Ongoing: Planting of hedgerows around parks, golf courses and cemeteries where appropriate.	KuHCC (Parks and Open Spaces)	1, 2, 3
Improve hedgerow management	Ongoing: Manage hedges on a rotational basis so that each is cut only once every 3 years.	KuHCC (Grounds Maintenance)	6
Encourage use of local provenance trees.	Medium Term: Establish nursery for local provenance trees.	BGEEP, YWT	2, 3

HABITAT ACTION PLAN

Improve understorey.	Medium Term: Understorey improvements to existing woodland areas through introducing suitable native species.	KuHCC (Parks and Open Spaces)	3
Improve links between woodland sites.	Ongoing: Plan plantings to create links across the City.	KuHCC (Parks and Open Spaces, Highways, Planning)	3
Advisory Promote planting of native trees and shrubs.	Short Term: Promote planting of Buckthorn to provide larval food source for Brimstone Butterfly. Medium Term: Produce information leaflet for garden centres on native trees and shrubs people should plant in their gardens for wildlife.	YBC KuHCC (LA21, Planning), University of Hull, YWT.	2, 3
Future Research and Monitoring Monitor birds in trees, scrub and hedgerows.	Ongoing: Monitor bird species.	HVWG, EYB	7
Communications and Publicity Education and promotion of 'A Greener City'.	Short Term: Events, public consultation, flagship projects and publicity.	KuHCC (All), YWT	8
Increase awareness of 'Trees for Babies' scheme.	Ongoing: Promote 'Trees for Babies' scheme.	KuHCC (Parks and Open Spaces, Registry Office)	8

WHAT WE CAN ALL DO

- § Plant native trees and shrubs, preferably using plants of local origin.
- § Leave deadwood to decay naturally.
- § Carry out hedge maintenance in late winter (December February) so that nesting birds are not disturbed and flowers and fruit are produced.

HABITAT ACTION PLAN

LINKS WITH OTHER ACTION PLANS

This Habitat Action Plan should be considered with those for **Gardens and Allotments**, and **Parks, Golf Courses and Cemeteries**. **Elms** were once common on the tree-lined avenues of Hull but are now very rare in the City. **Lichens** occur on many trees. Open woodland is the preferred habitat of the **Spotted Flycatcher**. Woodland edge and hedgerows are important habitats for the **Tree Sparrow**, **Hedgehog**, **Common Lizard**, **Great Crested Newt** and **Common Toad**. **Reed Buntings** also often use hedgerows in the winter. Buckthorn growing in hedgerows is essential for the survival of the **Brimstone Butterfly**. Scrub habitat is particularly important for the **Linnet**.

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Species Action Plans

Bee Orchid	Lichens
Brimstone	Linnet
Common Blue Butterfly	Mute Swan
Common Lizard	Pipistrelle Bat
Common Toad	Reed Bunting
Cowslip	Saltmarsh Snails
Dragonflies	Skylark
Elm Trees	Song Thrush
Great Crested Newt	Spotted Flycatcher
Harvest Mouse	Tree Sparrow
Hedgehog	Wall Ferns
House Martin	Water Vole
	Yellow-wort

SPECIES ACTION PLAN

Bee Orchid *Ophrys apifera*



The Bee Orchid is a native plant and can be found growing in pastures, field borders, banks and copses on dry chalk or limestone soils. It often occurs on recently disturbed soils and prefers open or slightly shaded places. Bee Orchids flower between June and July. They usually have between 2 and 5 flowers that grow one above the other in a spike-like head. The Bee Orchid gets its name from the shape of the flowers. Each flower has three erect pink sepals, two small green petals and a lip, which is yellow and brown with a velvety texture. Although it looks like a Bee it does not use them as its main method of pollination; the usual way is by self-pollination. Bee Orchids grow to between 15 and 40 cm high. The light green leaves have no stalk and are oval to oblong in shape.

The Bee Orchid is a perennial and the annual cycle is distinctive. The aerial part dries off after summer, leaving only the buried tuber, which sprouts again when good weather arrives. This orchid, like many others, is mysterious in its appearance. It often appears in large numbers on disturbed sites, remains for a few years and then vanishes.

CURRENT STATUS

The Bee Orchid is probably the best known British Orchid. It is widespread and can be found in most counties of England and Wales. The Bee Orchid can be frequent and locally common in some parts of Great Britain, mainly in the South and East.

Bee Orchids are locally common in Hull and large populations occur on a number of sites around the City. The presence of such large numbers of Orchids in an urban area is unusual.

CURRENT FACTORS AFFECTING BEE ORCHIDS

Loss of habitat to development is the main factor affecting Bee Orchids in Hull. The plant occurs on a number of disused industrial sites, most of which are scheduled for development and will be lost in the future.

CURRENT ACTION

Legal Status

All wild plants are given limited protection under UK law. Under the Wildlife and Countryside Act (1981) it is illegal to uproot any wild plant without permission from the landowner or occupier. The Countryside and Rights of Way Act (2000) has increased the penalties for offences so that they are high enough to act as a deterrent.

Management, Research and Guidance

Over the period of 1998 to 2000 the Hull Natural History Society members undertook a project to map the distribution of plants within the Hull area. The Bee Orchid was included in this survey.

Positive action is being taken for a Bee Orchid colony on an industrial site in Hull. The plants are present in large numbers on a site that is due to be built upon. The developers have been required to move the plants to an area of the site unaffected by the development.

ACTION PLAN AIMS

1. To determine the current distribution of Bee Orchids within Hull.

SPECIES ACTION PLAN

2. To monitor known Bee Orchid colonies.
3. To translocate plants when a site is to be developed.
4. To provide advice on Orchid translocation.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Develop guidance for translocating Bee Orchids.</p> <p>To translocate plants when a site is to be developed.</p>	<p>Ongoing: Determine success of translocation and refine techniques. Medium Term: Produce guidelines for future translocations.</p> <p>Short Term: Translocate Bee Orchids on development site at Sutton Fields.</p>	<p>KuHCC (Planning)</p> <p>KuHCC (Hull City Services)</p>	<p>4</p> <p>3</p>
<p>Advisory Advise developers on how to translocate the plants.</p>	<p>Short Term: Provide guidance to developers on how to move Orchids.</p>	<p>KuHCC (Planning)</p>	<p>4</p>
<p>Future Research and Monitoring Determine the distribution of Bee Orchids in Hull.</p> <p>Monitor known Bee Orchid colonies.</p> <p>Monitor success of Bee Orchid translocation.</p>	<p>Short Term: Determine distribution of Bee Orchids within Hull.</p> <p>Ongoing: Biennial monitoring of known populations.</p> <p>Ongoing: Annual monitoring of translocation site.</p>	<p>HNHS</p> <p>HNHS</p> <p>KuHCC (Planning)</p>	<p>1</p> <p>2</p> <p>2</p>
<p>Communications and Publicity No communications or publicity proposed.</p>			

SPECIES ACTION PLAN

WHAT WE CAN ALL DO

- š Let the Hull Biodiversity Partnership know if you see Bee Orchids in Hull.
- š Be aware that uncut grassland on industrial sites can be ideal situations for rare plants and are better for wildlife than closely mown lawns.

LINKS WITH OTHER ACTION PLANS

These plants only occur on disused **Industrial Land** in Hull and management of these sites will be important for the plant. Bee Orchids are often found growing with **Yellow-wort** and may require similar management.

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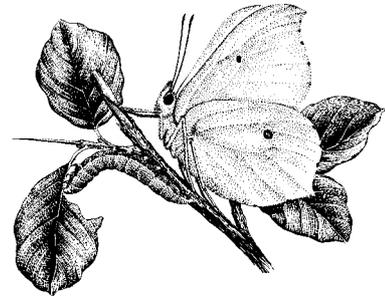
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SPECIES ACTION PLAN

Brimstone Butterfly *Gonepteryx rhamni*

The Brimstone is a large butterfly. It is a powerful flyer, with a wingspan of up to 6 centimetres. The male is sulphur yellow in colour and is unmistakable, however the pale lemon female can sometimes be confused with a Large White butterfly when in flight.

A single generation is produced each year. Caterpillars live towards the end of spring on Buckthorn (*Rhamnus cathartica*) and Alder Buckthorn (*Frangula alnus*). Buckthorn prefers chalky or lime soils and Alder Buckthorn likes heavier and wetter soils. Brimstone can establish breeding populations even where only a few of these shrubs occur. The caterpillars develop quite quickly and butterflies emerge from the pupae in early summer. The adults soon hibernate in sheds, attics and hollow trees. The Brimstone will fly more readily than other hibernating butterflies and can sometimes be seen in November, December or January, although they normally emerge from February onwards.



CURRENT STATUS

Brimstone are found in England and Wales. They are not often seen above Cumbria in the west or the North York Moors in the east. They are only found where Buckthorn is available for the larvae to feed on. Brimstones breed within Hull in places where the larval foodplant occurs.

CURRENT FACTORS AFFECTING BRIMSTONE

§ The Brimstone has been affected by the loss of deciduous woodland and hedgerow where the larval foodplant is traditionally found.

CURRENT ACTION

Legal Status

The Brimstone has no legal protection.

Management, Research and Guidance

Planting of Buckthorn has been encouraged within Hull through 'Gardening for Butterflies' talks and advice from Yorkshire Butterfly Conservation (YBC) members. Butterfly Conservation is also producing plans for '*Butterflies of the Wider Countryside*' which may include the Brimstone.

There is no organised recording of any specific areas or species of butterfly in Hull.

ACTION PLAN AIMS

1. To involve the people of Hull in Buckthorn planting and Brimstone monitoring schemes, through community groups, schools etc.
2. To increase the number and distribution of Buckthorn plants in Hull.
3. To improve management of Buckthorn in hedges.
4. To increase awareness of the Brimstone and other butterflies within Hull.

SPECIES ACTION PLAN

5. To monitor Buckthorn plants for Brimstone eggs and larvae.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Review of hedgerow management and planting schemes.</p>	<p>Short Term: Review of hedgerow management.</p> <p>Medium Term: Introduction of more wildlife-sensitive hedgerow management.</p> <p>Ongoing: Buckthorn to be planted in at least 20% of landscaping schemes.</p>	KuHCC (Parks and Open Spaces)	2, 3
<p>Habitat Management and Protection</p> <p>Once Buckthorn is established it requires little management. However there is evidence that Brimstone prefer younger plants so continued planting should be encouraged.</p> <p>Cutting of hedges containing Buckthorn should be avoided from April to July.</p>	<p>Ongoing: Continued planting of Buckthorn.</p> <p>Ongoing: Avoid cutting hedges between April and July</p>	KuHCC (Parks and Open Spaces), YBC KuHCC (Parks and Open Spaces)	2 3
<p>Advisory</p> <p>Provide advice on which species to plant to encourage Brimstone and other butterflies.</p>	<p>Medium Term: Produce leaflet on beneficial plants for butterflies, distribute to garden centres.</p>	YBC	4
<p>Future Research and Monitoring</p> <p>Monitoring Buckthorn for evidence of eggs and larvae.</p>	<p>Ongoing: Regular monitoring of Buckthorn for eggs/larvae.</p>	YBC	5
<p>Communications and Publicity</p> <p>Talks to raise awareness of butterflies and encourage sympathetic management of their habitat.</p>	<p>Ongoing: Give talks to raise awareness of Brimstone and other butterflies and encourage planting of Buckthorn.</p>	YBC	2, 4

SPECIES ACTION PLAN

WHAT WE CAN ALL DO

- š Plant Buckthorn or Alder Buckthorn and it should soon be found by local Brimstone butterflies who lay their eggs on these plants.
- š Look out for the distinctive Brimstone and check Buckthorn plants for eggs/larvae in spring.
- š Send details of Brimstone sightings to the Biodiversity Partnership.

LINKS WITH OTHER ACTION PLANS

Management of **Trees, Scrub and Hedgerows** and action in **Gardens and Allotments** will be important in providing larval food plants for Brimstone allowing the population and distribution to increase.

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SPECIES ACTION PLAN

Common Blue Butterfly *Polyommatus icarus*



The Common Blue is a small butterfly with a wingspan of just over 3 centimetres. Males have blue upper wings, while those of females vary from brown to blue. The undersides of the wings are grey-brown with dark spots. Two generations of the butterfly are produced each year; the first in May/June, followed by a second in August/September. The Common Blue is characteristic of species-rich grassland. The butterfly can maintain small populations and colonise suitable habitat over distances of a few kilometres. The larva feed on trefoil plant species, such as Black Medick (*Medicago lupulina*), the main larval food plant being Birds-foot-trefoil (*Lotus corniculatus*).

CURRENT STATUS

The Common Blue is widespread in mainland Britain, although declining in range. The species is not threatened within Europe. It is not listed as a species of concern by Butterfly Conservation.

The Common Blue is scarce in Hull. It is found on waste ground, verges near Priory Sidings and has been seen in recent years on Cumbrian Way and around Bransholme Fishing Lake. A very small colony exists in Pearson Park Wildlife Garden and it is found along rail embankments throughout city. The main larval foodplants locally are Common Birds-foot-trefoil and Black Medick, growing in natural and semi-improved grassland, wasteland and verges in sunny sheltered positions.

CURRENT FACTORS AFFECTING COMMON BLUE BUTTERFLY

- š Destruction of semi-natural grassland for urban development.
- š Improvement of natural grassland with fertilisers or reseeding with Rye Grass (*Lolium* spp.).
- š Changes in agricultural practice, for example the increased use of pesticides for crop protection and ploughing right up to hedgerows, has led to loss of field margins as breeding habitat.

CURRENT ACTION

Legal Status

The Common Blue butterfly is not legally protected.

Management, Research and Guidance

Butterfly Conservation is in the process of producing plans for '*Butterflies of the Wider Countryside*' which should include the Common Blue.

With the aid of the Countryside Stewardship Scheme areas of Priory Meadows and Snuff Mill Fields have been managed as hay meadows. This management practice will be beneficial to the Common Blue butterfly as well as many other grassland species.

ACTION PLAN AIMS

1. To manage natural and semi-natural grassland to maintain and increase floral diversity.
2. To remove illegally grazing horses where they are damaging the diversity of flower species.

SPECIES ACTION PLAN

3. To relax mowing regimes on grass verges, flood banks, amenity grassland and species-rich grasslands.
4. To continue Countryside Management Scheme at Priory Meadows and Snuff Mill Fields.
5. To monitor the population and distribution of the Common Blue butterfly in Hull.
6. To use the Common Blue butterfly to highlight the importance of less frequent grass verge mowing.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Relaxation of mowing regimes on grass verges and floodbanks.	Short Term: Review mowing regimes Medium Term: Relax mowing regimes where possible.	KuHCC (Highways), EA	3
Leave margins uncut on amenity grassland.	Short Term: Develop two example sites. Medium Term: Uncut margins on 50% of playing fields. Long Term: Uncut margins on all playing fields.	KuHCC (Parks and Open Spaces)	3
Manage areas of grassland as hay meadow.	Ongoing: Priory Meadows, Snuff Mill Fields and other natural grasslands to be cut once a year for hay.	KuHCC (Planning, Parks and Open Spaces)	3, 4
Remove horses illegally grazing on species-rich grassland.	Short Term: Removal of horses from Priory Meadows and Snuff Mill Fields. Medium Term: Remove horses from other important grasslands.	KuHCC (Property)	2
Advisory No advisory action proposed.			

SPECIES ACTION PLAN

<p>Future Research and Monitoring</p> <p>Review of amenity grassland, grass verge and river/drain bank management.</p>	<p>Short Term: Review mowing regimes.</p>	KuHCC (Highways, Parks and Open Spaces), EA	3
<p>Monitor numbers and distribution of Common Blue butterfly in Hull.</p>	<p>Ongoing: Annual monitoring of Common Blue butterfly in Hull.</p>	YBC	5
<p>Communications and Publicity</p> <p>Use the Common Blue butterfly to illustrate the purpose of 'unkempt' verges.</p>	<p>Medium Term: Article in local press highlighting importance of grass verges for Common Blue butterflies.</p>	YBC	6
<p>Highlight Birds-foot-trefoil as foodplant at Pearson Park Wildlife Garden.</p>	<p>Medium Term: Publicity to highlight importance of providing food plants for butterflies.</p>	KEG	6

WHAT WE CAN ALL DO

- š Let the Biodiversity Partnership know if you see Common Blue butterflies in Hull.
- š Be aware of the need for areas of uncut grass to encourage and protect wildlife. Areas of less disturbed grassland are essential in the lifecycle of this butterfly.

LINKS WITH OTHER ACTION PLANS

The management of **Grassland** habitats will be particularly important for the survival of the Common Blue butterfly in Hull. Species-rich grassland also often occurs on under-used **Industrial Land**.

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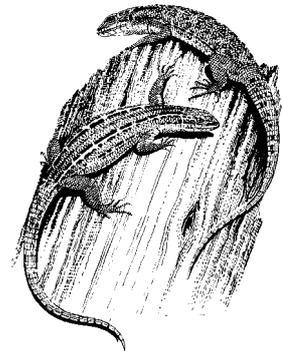
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SPECIES ACTION PLAN

Common Lizard *Lacerta vivipara*

Common Lizards can be a number of different colours, ranging from brown or yellow-brown to almost green, with a pattern of darker spots, flecks or stripes. Males have an orange belly flecked with black spots, while females usually have a plain yellowish belly. Adults generally grow to around 14 cm long and have a long slender tail. Common Lizards can be mistaken for newts but are more alert and move quickly if disturbed.

Reptiles are cold-blooded and maintaining the right body temperature is vital to their survival, therefore Common Lizards usually live in open, sunny habitats such as rough grassland, woodland edges or railway embankments. They are often found basking on the stony ballast around railway lines and on fallen tree trunks. When they are cold, Common Lizards can be very sluggish and make an easy meal for Cats, Foxes (*Vulpes vulpes*), Badgers (*Meles meles*) and birds of prey. Common Lizards hibernate from November to March in burrows or under logs, protected from the cold and predators. They feed largely on small insects such as spiders and beetles and will also eat small snails. Common Lizards mate in April and May and four to six live young are born in late July or August.



CURRENT STATUS

The Common Lizard is native to Britain and widespread throughout the mainland, however their numbers have fallen in recent years. The Common Lizard is a useful indicator species of the health of habitats.

Despite their name, Common Lizards are rare within Hull. A large colony was recently found on the area known as the Railway Triangle, a small patch of scrub and allotments sandwiched between railway lines close to Hull Royal Infirmary car park. This discovery is quite unusual as it is in the middle of the City.

CURRENT FACTORS AFFECTING COMMON LIZARDS

- § Nationally, Common Lizards are affected by loss, fragmentation and degradation of habitats due to a wide range of land-use changes. Within Hull, loss of habitat due to development is a major factor. A large population exists on the site of the new Community Super Stadium, which may be affected by this development.
- § Scrub and woodland invasion on grassland sites may make them unsuitable for lizards.
- § In areas where rabbits are a problem, land managers often gas burrows. If this is done in winter it may kill the Common Lizards which use them for hibernation.
- § In urban areas predation by Cats may affect Common Lizard populations, although Common Lizards are able to shed their tail when attacked.

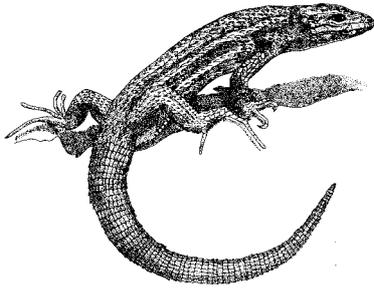
CURRENT ACTION

Legal Status

Common Lizards have some protection under the Appendix III of the Bern Convention. They are also protected from being killed, injured or sold, under Schedule 5 of the Wildlife and Countryside Act (1981).

SPECIES ACTION PLAN

Management, Research and Guidance



The Joint Nature Conservation Committee (JNCC) has produced '*A Framework for the Conservation of Amphibians and Reptiles in the UK: 1994-1999*'. English Nature produces a leaflet on reptiles '*Facts about Reptiles*' which includes the Common Lizard.

There has been some positive management for Common Lizards within Hull. A very large colony has been removed from the site of the new Community Super Stadium to protect them during development. The Lizards have been placed in a secure area and will be returned to their original home when the development is completed. The development plans have also been altered to protect the habitat used by the lizards.

ACTION PLAN AIMS

1. To determine the existing status and distribution of the Common Lizard in Hull.
2. To protect habitats used by the Common Lizard.
3. To require mitigation for the loss of Common Lizard habitat.
4. To provide advice on species and habitat management.
5. To increase public awareness of Common Lizards in Hull.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Require mitigation if Common Lizard habitat is to be lost to development.</p>	<p>Short Term: Require an area of the Super Stadium site to remain undeveloped and used as a nature reserve.</p>	<p>KuHCC (Planning)</p>	<p>2, 3</p>
<p>Habitat Management and Protection</p> <p>Protect habitats used by the Common Lizard.</p>	<p>Short Term: Create new replacement habitat area as part of the Super Stadium Nature Reserve.</p>	<p>KuHCC (Planning), Super Stadium Consortium</p>	<p>2, 3</p>
<p>Advisory</p> <p>Advise developers on management of sites to protect Lizards.</p>	<p>Short Term: Provide advice to the Super Stadium Consortium on management of Lizard population.</p>	<p>KuHCC (Planning), EN</p>	<p>4</p>

SPECIES ACTION PLAN

Advise on suitable habitat creation.	Short Term: Provide advice to the Super Stadium Consortium on habitat creation.	KuHCC (Planning), EN, YWT	4
Future Research and Monitoring Determine the distribution of Common Lizards in Hull.	Medium Term: Determine the distribution of Common Lizards in Hull.		1
Monitor Common Lizard populations on known sites.	Ongoing: Monitor the Lizard population on the Super Stadium site.	KuHCC, EN	1
Communications and Publicity Provide information panels for the created Nature Reserve at the Super Stadium site.	Medium Term: Provide information panels at the Super Stadium Nature Reserve for use by visitors and school groups.	Super Stadium Consortium	5

WHAT WE CAN ALL DO

- § Encourage Common Lizards by providing features that they can bask on or hide under such as fallen tree trunks.
- § Contact the Hull Biodiversity Partnership if you see a Common Lizard in Hull.

LINKS WITH OTHER ACTION PLANS

Habitat management will be very important to the conservation of Common Lizards, therefore this plan should be considered along with those for **Grassland, Industrial Land, Trees, Scrub and Hedgerows and Gardens and Allotments**.

REFERENCES

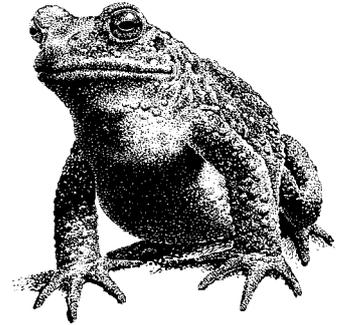
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SPECIES ACTION PLAN

Common Toad *Bufo Bufo*

Common Toads are generally brownish in colour and have rough warty skin. They are more colourful in the breeding season, especially the males which may be yellow or almost red in colour. Toads have a fat, thickset body with a broad, round head. Males grow to about 8 cm long and females can reach a length of 13 cm. Only male Toads croak. The Common Toad is a slow mover and it crawls rather than hops. Although Toads are generally seen by water they can be found in gardens and woodlands. Common Toads are very useful to have in the garden as they eat slugs, snails and a wide variety of other small creatures. Toads themselves are caught and eaten by a range of animals including Pikes, Weasels, Rats, Hedgehogs, Foxes, Herons, Gulls, and Crows. Their skin makes an unpleasant-tasting poisonous substance that protects them from some predators.



After waking from hibernation in late March or early April, Toads have a strong urge to return to their birth pond to breed. At this time many Toads are killed crossing roads. Toads depend entirely on the availability of a clean fresh water source to breed and so are a good indicator of the health of the environment. They prefer large, deep ponds and are less likely than frogs to colonise and breed in shallow garden ponds. Each female can lay 2000 eggs in two long spawn strings, wrapped around waterweed. The young Toads usually leave the water after rainstorms in July/August, often in large numbers and immediately seek cover in tall vegetation or under logs where they will hibernate through the winter.

CURRENT STATUS

The Common Toad is a widespread species and is present in nearly every 10km square in the country. It is recorded less frequently than the Common Frog. Within Hull the distribution and number of Common Toads is unknown.

CURRENT FACTORS AFFECTING COMMON TOADS

- § Habitat destruction and alteration has been of primary importance in the decline of the Common Toad. Toads can't breed without ponds. They are increasingly under threat from loss or separation from their breeding ponds by development. Ninety percent of rural ponds have disappeared during the last few decades. The increase in popularity of garden ponds means that urban areas are becoming increasingly more important habitats for Toads.
- § Changes in farming practices have had a damaging effect on most amphibians. The intensive management of arable land involves regular ploughing and application of fertiliser and pesticide, as well as mechanised reaping at the end of each season. This creates an unsuitable environment for adult and young amphibians when out of the water, whether foraging in summer or hibernating in winter.
- § Each spring Common Toads and other amphibians follow traditional migration routes to their spawning ponds. Many of their routes cross roads and this inevitably leads to road casualties.

CURRENT ACTION

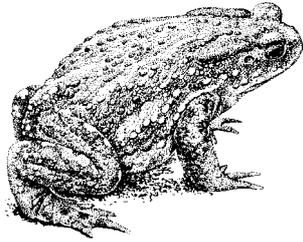
Legal Status

Toads receive some protection under Appendix III of the Bern Convention. They are also listed under Schedule 5 of the Wildlife and Countryside Act (1981). This means that it is an offence to sell Toads

SPECIES ACTION PLAN

collected in the wild without a licence. This Act was amended in 1995 so that a written licence is also required for any collection in the breeding season.

Management, Research and Guidance



The Common Toad suffers high casualties when crossing roads in spring to reach breeding ponds. Nationally, over 600 Toad crossings are registered by the Highways Department who arrange for signs or even Toad underpasses. In some places local people organise 'Toad Patrols' where Toads are collected and lifted across the road. There are no recorded Toad crossings within Hull.

ACTION PLAN AIMS

1. To determine the distribution of Common Toads within Hull.
2. To identify threats to Common Toads in Hull.
3. To maintain the number of ponds in Hull.
4. To enhance the condition of existing ponds.
5. To encourage the creation of new ponds.
6. To create safe places for Toads to cross roads.
7. To encourage terrestrial habitat management that will benefit Toads.
8. To increase public awareness of Common Toads and encourage action.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Ensure appropriate mitigation if ponds are lost to development.</p> <p>Promote pond construction in appropriate new developments.</p> <p>Ensure roads built across known Toad migration routes have Toad tunnels.</p>	<p>Ongoing: Ponds lost through development must be replaced elsewhere.</p> <p>Ongoing: Require developers to build new ponds.</p> <p>Ongoing: Require developers to build Toad tunnels.</p>	<p>KuHCC (Planning)</p> <p>KuHCC (Planning)</p> <p>KuHCC (Planning, Highways)</p>	<p>3, 5</p> <p>5</p> <p>2, 6</p>
<p>Habitat Management and Protection</p> <p>Manage terrestrial habitats in ways that will benefit Toads.</p>	<p>Ongoing: Leave piles of logs/stones as hibernation sites.</p>	<p>KuHCC (Grounds Maintenance)</p>	<p>7</p>

SPECIES ACTION PLAN

Ensure that Toad crossings on roads are as safe as possible.	Short Term: Identify places where Toads cross roads in Hull.	HWW (Frogline)	6
	Medium Term: Ensure road drains at Toad crossings have wire mesh to stop Toads getting stuck if they fall in.	KuHCC (Planning, Highways)	6
	Medium Term: Erect Toad warning signs for March/April/May at Toad crossing points.	KuHCC (Highways)	6
Advisory Guidance on building features suitable for Toads and other wildlife.	Medium Term: Produce a leaflet on features for Toads and other wildlife within gardens and distribute to garden centres.	YWT	3, 5, 7
Future Research and Monitoring Determine current status.	Short Term: Assess current status from existing records.	NEYEDC	1
Encourage Hull residents to record Common Toad sightings.	Ongoing: Article in local press (March or April) asking people to send in records of Common Toads.	YWT, HWW (Frogline)	1, 8
Communications and Publicity Increase public awareness and involvement in 'Toads on Roads Campaign'.	Ongoing: Annual press releases in February and March.	HWW (Frogline)	8

WHAT WE CAN ALL DO

- § Create a pond suitable for Toads - consider having a wildlife pond rather than keeping fish.
- § Avoid the use of chemicals such as slug pellets – let the Toads control your pests.
- § Create places that will provide shelter for Toads and other creatures, such as piles of logs or stones.
- § Help us determine the distribution of Toads in Hull by sending records of sightings to the Biodiversity Partnership.

SPECIES ACTION PLAN

LINKS WITH OTHER ACTION PLANS

The number of Common Toads in Hull will be dependent on the number of suitable habitats. Common Toads will be affected by management of **Grassland, Fresh Water Habitats, Gardens and Allotments, Parks, Cemeteries and Golf Courses and Trees, Scrub and Hedgerows**. Management of these habitats for Toads may also be beneficial for other species that use wetlands and surrounding habitat such as **Great Crested Newts and Dragonflies and Damselflies**.

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SPECIES ACTION PLAN

Cowslip *Primula veris*



The Cowslip is a native plant found in old meadows, pastures, grassland, hedgebanks, open scrub and woodland clearings. In recent years it has often colonised churchyards and road verges. It is a perennial and flowers during April and May.

Cowslips are 10-15 cm in height. The flowers are deep yellow in colour and occur in clusters on a nodding stalk. The leaves are long, more or less oval, crinkled and downy. They are arranged in a rosette shape at the base of the stem.

CURRENT STATUS

The Cowslip is widely distributed throughout the British Isles. It was once very common but has been greatly reduced in numbers in recent years. A recent national study reported that less than half of Cowslips are found growing in their traditional habitat of meadows and pastures, compared with almost a third by the roadside. Their traditional grassland habitat is under serious threat.

The Cowslip also used to be frequent in the Hull area. It was formerly described as "*exceeding common in every meadow of Holderness*" (Robinson 1902). The Cowslip is now very scarce in Hull. It is found in hedge-bottoms on grassland at Priory Meadows and used to occur in a similar situation near Kingswood High School but was absent when recently surveyed.

CURRENT FACTORS AFFECTING COWSLIPS

- § The recent Government Countryside Survey suggested that at least 97% of unimproved grasslands were lost between 1930 and the mid-1980s. The study also indicated that plant diversity has declined in agriculturally unimproved grasslands between 1990 and 1998, diversity in some of these meadows decreased by as much as 8%.
- § The Cowslip is being affected by destruction of grassland habitat by modern agriculture, urban development and the pressure to keep remaining fragments of grassland 'neat and tidy' by fertilising and mowing. As a result of these changes the plant has become more reliant on less disturbed, man-made grassland areas like road verges.

CURRENT ACTION

Legal Status

All wild plants are given limited protection under UK law. Under the Wildlife and Countryside Act (1981) it is illegal to uproot any wild plant without permission from the landowner or occupier. The Countryside and Rights of Way Act (2000) has increased the penalties for offences against plants so that they are high enough to act as a deterrent.

Management, Research and Guidance

Plantlife and the National Trust are working together on a long-term survey of wild plant species to be carried out over the next 10-15 years, to provide important data for plant conservation. The Cowslip is already part of this initiative and the 'Cowslip Count' was launched in Spring 2000. Records were received from over 700 people, producing data on over two thousand places around the UK. The results will be used as baseline data. The Cowslip count will be repeated every 5 years and changes monitored.

SPECIES ACTION PLAN

Over the period of 1998 to 2000 the Hull Natural History Society members undertook a project to map the distribution of plants within the Hull area. The Cowslip was included in this survey.

ACTION PLAN AIMS

1. To make the Cowslip a familiar plant again.
2. To identify existing populations of Cowslip in Hull and manage those areas sympathetically.
3. To monitor known populations of Cowslip in Hull.
4. To manage grassland in a way which will benefit Cowslips.
5. To establish a nursery for raising plants of local origin that can be used for re-introduction.
6. To reintroduce Cowslips to suitably managed grassland.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Leave margins uncut on amenity grassland.</p>	<p>Short Term: Develop two example sites and produce a management plan. Medium Term: Leave uncut margins on half of the City's playing fields. Long Term: Leave uncut margins on all playing fields.</p>	<p>KuHCC (Parks and Open Spaces)</p>	<p>1, 2, 4</p>
<p>Relaxation of mowing regimes on grass verges and river/drain banks.</p>	<p>Short Term: Review mowing regimes. Medium Term: Relax mowing regimes where possible.</p>	<p>KuHCC (Highways), EA</p>	<p>2, 4</p>
<p>Collect seeds from existing populations.</p>	<p>Short Term: Remove a small number of seeds from existing populations.</p>	<p>HNHS</p>	<p>6</p>
<p>Establish a nursery for raising local plants.</p>	<p>Ongoing: Establish a nursery where local plants can be grown from seed for reintroduction.</p>	<p>BGEEP</p>	<p>5, 6</p>
<p>Carry out reintroduction programme.</p>	<p>Short Term: Identify potential reintroduction</p>	<p>HNHS</p>	<p>1, 6</p>

SPECIES ACTION PLAN

	sites. Medium Term: Reintroduce Cowslips to appropriate sites.	YWT, HWW	
Advisory No advisory action proposed.			
Future Research and Monitoring Identify existing populations of Cowslip.	Short Term: Survey to identify existing populations of Cowslip.	HNHS	2, 3
Communications and Publicity Use the Cowslip as a "flagship" species to demonstrate the success of the management /re-introduction programmes.	Medium Term: Article to highlight the reintroduction scheme.		1

WHAT WE CAN ALL DO

- š Let the Biodiversity Partnership know if you have seen Cowslips in Hull.
- š Ask for a wild flower strip to be made at the edge of your local school field.
- š Be aware that grassland managed for Cowslips and other wildflowers needs to be left uncut until later in the year.

LINKS WITH OTHER ACTION PLANS

The Cowslip will not survive if its habitat is not protected. The **Grassland** Action Plan will therefore be important in the conservation of the Cowslip.

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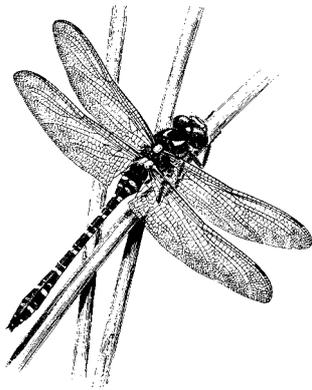
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SPECIES ACTION PLAN

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Dragonflies



Dragonflies are among the most ancient land-living species on the planet, having been in existence for almost 300 million years. They live in freshwater and wetlands such as ponds, lakes, rivers, marshes, fens and bogs.

There are several ways to tell dragonflies from damselflies. Damselflies are usually small, weakly flying insects that stay close to the waters edge or water surface. When at rest most species hold their wings along the length of their abdomen. The eyes are always separated, never touching. Dragonflies are usually larger and can often be found flying well away from water. When at rest they hold their wings out from the body, often at right angles to it. The eyes are very large and usually touch.

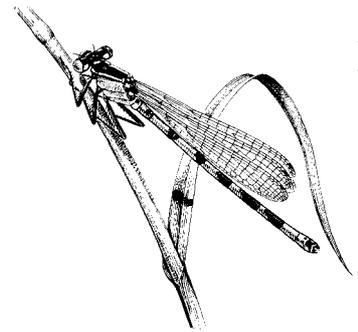
Dragonflies usually lay their eggs under the water. The larvae live underwater for several weeks (or years, depending on the species) and go through a series of moults as they grow. The larvae eat almost any living thing that is smaller than they are. They emerge from the water when they are ready to go through their final moult where the 'skin' disappears to reveal the winged adult. Adult dragonflies mainly eat other flying insects, particularly midges and mosquitoes. They will also take butterflies, moths and smaller dragonflies.

Dragonflies and Damselflies are very sensitive to changes and pollution in their environment, which makes them very good indicators of the quality of wetland habitat.

CURRENT STATUS

There are currently 38 dragonfly species breeding in Britain, of which seven are vulnerable because of their specialised habitats. Three species have already become extinct during the past 40 years. Three new species of dragonfly have come to live in Britain in the last few years and several species, which were previously scarce, have expanded in number considerably.

The distribution of dragonflies and damselflies in Hull has not been studied in detail. A recent survey of North Carr, Bransholme revealed important populations of dragonflies and damselflies. Species found on the site include Blue-tailed Damselfly (*Ischnura elegans*), Common Blue Damselfly (*Enallagma cyathigerum*), Emerald Dragonfly (*Lestes sponsa*), Brown Hawker (*Aeshna grandis*), Common Darter (*Sympetrum striolatum*), Ruddy Darter (*Sympetrum sanguineum*) and Emperor Dragonfly (*Anax imperator*). The Emperor Dragonfly, regarded as Britain's most impressive dragonfly, is of particular interest on this site. This insect is generally recorded at the northern edge of its range at the Humber but is thought to be spreading northwards. This record is therefore of considerable importance. Migrant Hawkers (*Aeshna mixta*) were found in Pickering Park Lake prior to a herbicide accident in 1999. The status of this dragonfly in the Park is not known but it can still be seen over many house gardens in West Hull. Chanterlands Avenue crematorium supports Blue-tailed Damselfly and Common Blue Damselfly.



CURRENT FACTORS AFFECTING DRAGONFLIES

- § Still water habitats within the British Isles have declined dramatically over the last 50 years. Farm ponds which traditionally provided a water supply for animals are usually no longer required. Unused ponds have dried out or have been filled in to provide additional land for agriculture or building. This loss of open water has resulted in a serious reduction of dragonfly populations.

SPECIES ACTION PLAN

- § Modern land-drainage techniques have speeded up the decline of wetland habitats, either directly or indirectly, through the lowering of the water table.
- § Ponds are subject to pollution, and those in urban areas are often used as refuse tips. Many ponds are simply neglected and become over-shadowed by trees and bushes. Ponds and lakes often become overgrown with water plants. Reeds and Bulrush are prone to dominate ponds therefore reducing the amount of open water and suitable habitats for the aquatic plants required by dragonflies.
- § Damselfly and dragonfly larvae are vulnerable to predation by fish if these are kept in unnaturally large numbers.

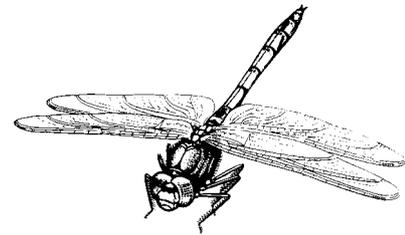
CURRENT ACTION

Legal Status

None of the dragonfly species occurring in Hull is specially protected under national or European legislation.

Management, Research and Guidance

The British Dragonfly Society produces information on managing habitats for dragonflies. This includes a leaflet '*Dig a Pond for Dragonflies*' in which the general habitat requirements of British dragonflies are discussed as well as practical aspects of pond construction. The British Dragonfly Society has also recently appointed a Dragonfly Conservation Officer to encourage and promote research into dragonflies and their habitat nationwide.



ACTION PLAN AIMS

1. To determine the species of damselfly and dragonfly present in Hull.
2. To maintain or increase the number of ponds in the City.
3. To promote pond construction.
4. To enhance ponds to make them more suitable for dragonflies.
5. To encourage more wildlife-friendly management of ponds.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation Ensure appropriate mitigation if ponds are lost to development.	Ongoing: Ponds lost through development must be replaced elsewhere.	KuHCC (Planning)	2, 3
Promote pond construction in appropriate new developments.	Ongoing: Require developers to build new ponds.	KuHCC (Planning)	3

SPECIES ACTION PLAN

<p>Habitat Management and Protection</p> <p>Clear excessive vegetation from ponds at North Carr.</p> <p>Manage all park ponds in a more wildlife-sensitive way.</p>	<p>Short Term: Clear excessive vegetation and rubbish from ponds at North Carr.</p> <p>Ongoing: Manual clearing of vegetation from ponds rather than use of chemical herbicides.</p>	<p>KuHCC (Area Committee), BGEEP</p> <p>KuHCC (Parks and Open Spaces)</p>	<p>4</p> <p>5</p>
<p>Advisory</p> <p>Provide advice on management of fisheries.</p>	<p>Ongoing: Ensure management at Bransholme Fishing Lake is not detrimental to wildlife.</p>	<p>EA</p>	<p>4, 5</p>
<p>Future Research and Monitoring</p> <p>Determine the species of damselfly and dragonfly present in Hull.</p>	<p>Short Term: Survey of ponds, rivers, drains and wetlands to determine which species are present in Hull.</p>	<p>HVWG</p>	<p>1</p>
<p>Communications and Publicity</p> <p>Encourage pond construction.</p>	<p>Medium Term: Article encouraging people to build garden ponds.</p>		<p>2, 3</p>

WHAT WE CAN ALL DO

- § Create a wildlife pond to provide a breeding place for dragonflies.
- § Be aware of the need for the management of the City's park lakes for the benefit of varied wildlife.

LINKS WITH OTHER ACTION PLANS

The plans for **Fresh Water Habitats** and **Grassland** will be important in the conservation of dragonflies. Actions for dragonflies may also benefit other species that require similar habitats, such as **Great Crested Newt** and **Common Toad**.

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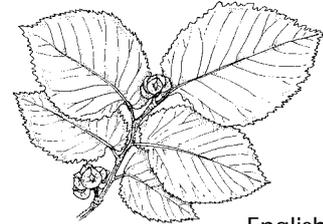
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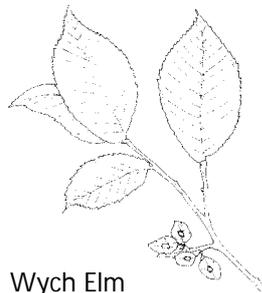
Elm Trees (*Ulmus* species)

There are three British Elms plus a number of hybrids and cultivated forms, all of which can grow into large trees: English Elm (*Ulmus procera*), Wych Elm (*Ulmus glabra*), and Smooth-leaved Elm (*Ulmus carpinifolia*).

The English Elm is thought to be native to Britain and was once a common species of wet woods, hedgerows and drain banks. The English Elm grows to about 30m, and forms suckers which produce new trees. The leaves of the English Elm vary in size and shape; they are dark green and rough above with pale down beneath. The bark is dark brown and cracked into small rectangular plates. Many localised forms occur in different parts of Britain.



English Elm



Wych Elm

The Wych Elm is native to Britain. It is a large tree, growing to over 40m and is often seen in parks as a specimen tree. The flowers open in early March. The leaves are rough on the upper surface and softly hairy beneath with very short stems. The bark is smooth and grey, with cracks and furrows on mature trees.

Smooth-leaved Elm is native to Europe (possibly including Britain). It grows to about 30m with upright branches forming a dome shaped crown. Leaves are always bright shiny green above with tufts of down beneath. The bark is greyish brown with long ridges and furrows.

There are several species that are dependent on Elm trees. The Elm is the only larval food plant of the White-letter Hairstreak butterfly (*Strymonidia w-album*); therefore the survival of this species is directly linked with that of the tree. The bark of Elm trees provides a distinctive surface on which lichens can grow. The Orange-fruited Elm Lichen, an UK BAP priority species, is found only on Elms. Elms are also important for many bird species.

CURRENT STATUS

English Elm was once widespread in fields, hedges, parks and streets, but was devastated by the Dutch Elm disease fungus (*Ophiostoma novo-ulmi*) and is now rarely planted. The Wych Elm is also suffering from Dutch Elm disease and associated lack of planting across the UK. It is estimated that Dutch Elm disease has killed over 80% of the UK Elm population.

The most common Elm species in Hull, prior to the Dutch Elm disease outbreak in the 1970s were Wych Elm, English Elm and Wheatley Elm (a cultivated form of the Smooth-leaved Elm). English Elm had a high population in the area but being perhaps most susceptible to disease due to its thick bark, was decimated in the 1970s and 1980s. Although the parent trees died, the rootstock often escaped infection and sent up sucker growth. This is not resistant to the disease but, assuming that it does not become infected, will eventually grow to maturity. Populations survive at Sutton Golf Course and Springhead Golf Course. The Wych Elm is not as frequent in Hull as the English Elm but a large specimen tree grows in Kingston Gardens.

The most abundant Elm in Hull was the Wheatley Elm. The tree was planted along highway verges and Hull used to have thousands of these along major roads, and avenues throughout the city. The City Council Urban Forestry Department holds records of former Elm avenues. Dutch Elm disease killed many of the roadside and park Elms. Very few remain and the species is now uncommon locally.

SPECIES ACTION PLAN

CURRENT FACTORS AFFECTING ELM TREES

- š Dutch Elm disease has caused the death of many trees. There is a low base population and lack of uninfected local provenance stocks.
- š The incidence of Dutch Elm disease is declining as host trees become rarer but there is always the possibility of the disease returning.
- š Elms do not readily regenerate from seeds and only the English Elm has the ability to regenerate by vegetative means. The survival of the species depends on planting.
- š Illicit grazing prevents natural regeneration.
- š Mature trees are often subject to vandalism and saplings are often destroyed.
- š Inappropriate hedgerow management may lead to the loss of naturally regenerating Elms.

CURRENT ACTION

Legal Status

Timber import and internal sanitation measures exist under the Plant Health Act (1967). The problem of Dutch Elm disease was so severe in the late twentieth century that the Restriction on Movement of Elms Order (1984) was passed to prevent movement of the species. The Order was amended in (1988) and Humberside was removed from the list of areas into and within which the movement of Elm is restricted. This Order was abolished in 1996.

Management, Research and Guidance

The Forestry Commission carries out research into disease mechanisms and control measures. There is currently no research or management relating to Elms carried out within Hull.

ACTION PLAN AIMS

1. To determine the number and distribution of remaining Elms in Hull.
2. To monitor the distribution of Elm trees in Hull.
3. To monitor Elm sucker recovery growth.
4. To collect and propagate Elm material from local trees.
5. To manage hedgerows and woodland to benefit Elm trees.
6. To promote planting Elm saplings produced from local trees.
7. To provide advice on Elm management and Dutch Elm disease.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>No policy or legislation proposed.</p>			
<p>Habitat Management and Protection</p> <p>Collect and propagate material from Elms of local origin.</p> <p>Hedgerow management should incorporate retention of Elm saplings.</p> <p>Promote planting of Elm trees.</p>	<p>Medium Term: Collect and propagate material from local Elm trees.</p> <p>Ongoing: Hedgerow management to incorporate retention of Elm saplings.</p> <p>Ongoing: Suggest use of Elms in landscaping schemes.</p>	<p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Grounds Maintenance)</p> <p>KuHCC (Parks and Open Spaces)</p>	<p>4</p> <p>5</p> <p>6</p>
<p>Advisory</p> <p>Provide advice on Elms and Dutch Elm disease.</p> <p>Promote planting of Elms in landscaping schemes.</p>	<p>Ongoing: Provide advice to public on management of Elm trees.</p> <p>Ongoing: Suggest use of Elms to developers when designing landscaping schemes.</p>	<p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Planning)</p>	<p>7</p> <p>6</p>
<p>Future Research and Monitoring</p> <p>Determine the number and distribution of remaining Elm trees.</p> <p>Monitor known Elm trees for signs of disease.</p>	<p>Medium Term: Survey of hedgerows, avenues and woodlands to locate remaining Elm trees.</p> <p>Ongoing: Monitor known Elm trees on an annual basis.</p>	<p>KuHCC (Parks and Open Spaces)</p>	<p>1, 2</p> <p>3</p>
<p>Communications and Publicity</p> <p>Produce a leaflet giving information on Elms and Dutch Elm disease.</p>	<p>Medium Term: Update former Humberside County Council leaflet.</p>	<p>KuHCC</p>	<p>7</p>

SPECIES ACTION PLAN

WHAT WE CAN ALL DO

- š Let the Biodiversity Partnership know if you have Elm trees in your garden.
- š For any advice on Elms contact the City Council's Urban Forestry Section.

LINKS WITH OTHER ACTION PLANS

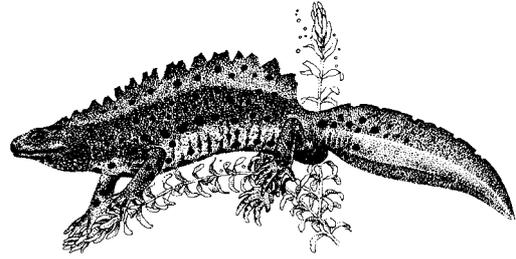
Management of **Trees, Scrub and Hedgerows** will involve action for Elm trees. Elms may provide an important habitat on which **Lichens** can grow. The loss of Elm trees has reduced the availability of nest holes for **Tree Sparrows** and **Spotted Flycatchers**.

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Great Crested Newt *Triturus cristatus*

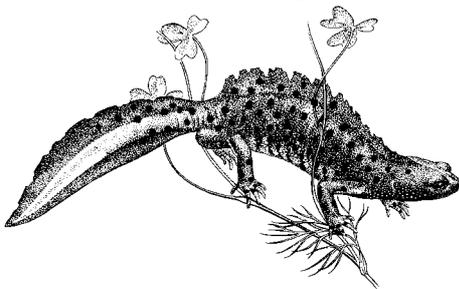
The Great Crested Newt grows to about 16 centimetres long and is the largest of Britain's three native newts. They are dark in colour, often black, and patterned with small white spots. They have orange or yellow bellies with black blotches, a warning to would-be predators that they are poisonous to eat. During the breeding season males develop a high, wavy crest along their backs and another along their tails. The tails have a broad silvery streak down each side. Females do not have a crest and their tails are yellow-orange along the bottom edge.



Great Crested Newts need several different types of habitat during their lives. They spend much of the year on land and can be found in woodlands, scrub and grassland, where they feed on earthworms, insects, spiders and slugs. Great Crested Newts hibernate from around October to February, often amongst tree roots, in crevices and amongst piles of stones and fallen or stacked wood. Towards the end of winter adult newts return to the water to breed, usually to the pond in which they were born. They prefer small to medium sized ponds with vegetation and areas of open water. Females lay several hundred eggs on underwater leaves near the edges of ponds. The larvae develop underwater and the young newts leave the leaf water between July and October, they mature on land over two to three years.

CURRENT STATUS

The Great Crested Newt has suffered a major decline in Britain over the last century. Exact figures on the rate of decline are difficult to calculate because of the shortage of detailed historical information and a lack of recent data for large areas of England. Surveys have estimated the rates of colony loss in England at between 0.5% and 4% a year during the 1960s to 1990s. Forty-thousand Great Crested Newt breeding ponds are thought to have been lost in this period. A similar pattern of decline has been seen across the European range of the Great Crested Newt. England is thought to support an important number of Great Crested Newt breeding sites on the European scale. Despite the widespread distribution of Great Crested Newts in England, it is considered to be of conservation concern because populations are still being lost or damaged.



There are very few confirmed records of Great Crested Newts in Hull and very little is known about their distribution. They have been recorded on Priory Park East in the west of the City and more recently at North Carr in the north-east.

CURRENT FACTORS AFFECTING GREAT CRESTED NEWTS

- § One of the main impacts on Great Crested Newt populations has been the destruction of habitat; both ponds and places newts use when on land. Ponds are deliberately filled in for development or for agricultural purposes.
- § Ponds deteriorate through neglect or misuse. Without management silt and plant material build up causing ponds to become shallow and stagnant. Shallow areas of ponds can be completely lost as they dry out and become taken over by plants in a process of natural succession. A number of the ponds at North Carr are becoming unsuitable for Great Crested Newts because of contamination from rubbish that has been dumped in them. A high level of nutrients caused by fertiliser running off the surrounding agricultural land may also make ponds less suitable for Great Crested Newts.

SPECIES ACTION PLAN

- § Introduction of fish and release of exotic species that compete with or eat newts is a problem. Newt larvae are particularly at risk of predation. Stocking of ponds at North Carr with fish for angling has led to a number of them becoming less suitable for newts.
- § Great Crested Newts need areas of dry land around their breeding ponds to find food and shelter. Loss or unsuitable management of these areas may affect newts because they spend a great deal of time on land. Land is often lost to development or intensive farming. Park-style maintenance of terrestrial habitats, landscaping and reclamation of derelict sites may make land surrounding ponds less suitable for newts.
- § Habitat fragmentation prevents movement between breeding, foraging and hibernation habitat. Long-term survival of Great Crested Newts may also depend on movement between neighbouring populations or breeding ponds. Great Crested Newts do not move more than about 1 km from their ponds so it is important to have a network of closely-spaced ponds or pond clusters.
- § Nobody really knows quite how many Great Crested Newts there are in Britain, or where they are, and new sites keep turning up. The lack of information on the presence of newts may lead to areas in which they live being destroyed because their presence is not recognised. Great Crested Newts are thought to occur in about 18,000 ponds nationally, although only about 20 percent of these have been identified. Even where populations have been identified, inappropriate and unsympathetic management or uninformed conservation work may have contributed to their decline.
- § The population at North Carr may be affected by collection by local children. Children often go pond dipping at North Carr and usually take away their catch.

CURRENT ACTION

Legal Status

Great Crested Newts are protected by both British and European laws. The species is important in the European context and is therefore listed on Annexes II and IV of the EC Habitats Directive (1992) and Appendix II of the Bern Convention. The Great Crested Newt is Britain's most strictly protected amphibian. It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations (1994). All native amphibians are protected under the Wildlife and Countryside Act (1981) and the amendments in the Countryside and Rights of Way Act (2000). It is illegal to sell, or otherwise advertise to sell, these species, or intentionally or recklessly kill, injure, possess or disturb the animals or damage their habitats. All stages of their life-cycle are protected.

The Planning Policy Guidance on Nature Conservation (PPG 9) covers Great Crested Newts and other protected species. Planning authorities should take appropriate action to check for the presence of such species and ensure they are protected through the planning process.

Management, Research and Guidance

The Great Crested Newt appears on the UK Biodiversity Steering Group '*Short List of Globally Threatened/Declining Species*' and a national Great Crested Newt Species Action Plan has been prepared. This seeks to identify Great Crested Newt sites, publicise this information to landowners, managers and planners, and provide advice on pond protection and management. The plan also aims to enable the conservation of identified sites, and identify locations suitable for species re-introductions and creation of new ponds. The British Herpetological Society, Froglife and The Herpetological Conservation Trust are the joint lead partners for the Great Crested Newt national Species Action Plan.

English Nature, Froglife and The Herpetological Conservation Trust fund a national Great Crested Newt Conservation Co-ordinator to ensure that the conservation actions proposed in the national plan are carried out, and to provide information and support to people involved in Great Crested Newt conservation.

SPECIES ACTION PLAN

The Joint Nature Conservation Committee (JNCC) has published a five-year framework (1994-1999) for the conservation of amphibians and reptiles in the UK, in association with the statutory nature conservation agencies and voluntary bodies. A '*UK Great Crested Newt Species Action Plan Work Programme 1998-2002*' was also produced.

There is a great deal of information available on management of this amphibian. English Nature produces an information leaflet '*Facts about Amphibians*' which includes the Great Crested Newt and also a leaflet specifically about the species '*Facts about Great Crested Newts*'. Froglife produces a range of information sheets, including '*Surveying for Great Crested Newt Conservation*', '*The Planning System and Site Defence*' and '*Frogs, Toads and Newts in Garden Ponds*'. The Joint Nature Conservation Committee publish the '*Herpetofauna Workers' Manual*' which provides comprehensive guidance on how to further the conservation of reptiles and amphibians native to the UK.

On sites proposed for development where Great Crested Newts are known or suspected English Nature is consulted and detailed surveys are requested. Conditions or planning obligations are sought, requiring measures to conserve the population where possible. English Nature have recently published '*Great Crested Newt Mitigation Guidelines*' which aim to assist those involved in changes in land-use where Great Crested Newts occur.

Within Hull, a recent survey of North Carr found Great Crested Newts to be present. The survey made recommendations for the removal of coarse fish from the small pond at North Carr in which the Newts were found. There is no action currently under way.

ACTION PLAN AIMS

1. To determine the current population and distribution of Great Crested Newts in Hull.
2. To maintain and increase the current population.
3. To encourage the creation of ponds.
4. To prevent the loss of ponds.
5. To ensure that potential breeding ponds have enough suitable land nearby for shelter and foraging.
6. To clear rubbish and accumulated silt from ponds.
7. To remove coarse fish from the ponds used by Great Crested Newts.
8. To provide advice on habitat management.
9. To raise awareness of the presence of Great Crested Newts at North Carr and encourage action.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Ensure appropriate mitigation if Great Crested Newts are affected by development.</p>	<p>Ongoing: Ensure appropriate mitigation if Great Crested Newt sites are affected by development.</p>	<p>EN, KuHCC (Planning)</p>	<p>3, 4</p>

SPECIES ACTION PLAN

<p>Habitat Management and Protection</p> <p>Restrict the introduction of fish to potential Great Crested Newt breeding ponds.</p> <p>Improve ponds at North Bransholme to encourage Great Crested Newts.</p> <p>Remove the accumulated silt and rubbish from ponds.</p> <p>Ensure that potential breeding ponds have enough suitable land nearby for shelter and foraging.</p>	<p>Ongoing: Provide advice on management of Bransholme Fishing Lake.</p> <p>Short Term: Removal of coarse fish from small pond at North Carr.</p> <p>Short Term: Remove the accumulated silt and rubbish from ponds at North Carr.</p> <p>Ongoing: Regularly check ponds and remove rubbish.</p> <p>Ongoing: Manage habitat surrounding ponds in a newt-friendly way.</p>	<p>EA</p> <p>KuHCC (Area Committee), BGEEP</p> <p>KuHCC (Area Committee), BGEEP</p> <p>KuHCC (Planning), BGEEP</p>	<p>7, 8</p> <p>7, 8</p> <p>4, 6</p> <p>5</p>
<p>Advisory</p> <p>Ensure developers are aware of presence of Great Crested Newts.</p>	<p>Ongoing: Ensure developers are aware of presence of Great Crested Newts.</p>	<p>NEYEDC, EN KuHCC (Planning)</p>	<p>2, 9</p>
<p>Future Research and Monitoring</p> <p>Determine the current population and distribution of Great Crested Newts in Hull.</p> <p>Provide advice on habitat management for Great Crested Newts.</p>	<p>Short Term: Re-survey all records over 5-years old.</p> <p>Medium Term: Survey all ponds suitable for Great Crested Newts.</p> <p>Medium Term: Review all Great Crested Newt breeding records.</p> <p>Medium Term: Ensure Great Crested Newt ponds and surrounding habitat are managed in a newt-friendly way.</p>	<p>NEYEDC</p> <p>KuHCC (Planning), BGEEP</p>	<p>1</p> <p>5, 6, 7</p>
<p>Communications and Publicity</p> <p>Increase awareness of presence of Great Crested Newts and encourage conservation action.</p>	<p>Short Term: Talks at local schools to explain the importance of not taking away their catch when pond dipping.</p>	<p>YWT, HWW (Frogline)</p>	<p>9</p>

SPECIES ACTION PLAN

WHAT WE CAN ALL DO

- š Let the Hull Biodiversity Partnership know if you see Great Crested Newts in Hull.
- š Consider creating a suitable wildlife pond.

LINKS WITH OTHER ACTION PLANS

This plan should be considered along with the Habitat Action Plans for **Fresh Water Habitats, Trees, Scrub and Hedgerows, Gardens and Allotments** and **Grassland**. Action for this species is likely to benefit a range of other species that require similar habitat conditions, for example, the **Common Toad** and **Dragonflies**.

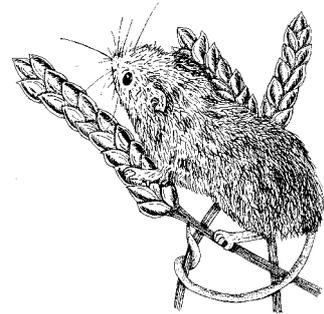
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Harvest Mouse

Micromys minutus

Harvest Mice are the smallest British rodents, being just 5 to 7 cm in length and weighing only 4 to 6 grams. They have a blunt nose and small hairy ears, in contrast with other British species of mice. Harvest Mice use a wide range of habitats and are excellent indicators of the health of their environment. They are found in linear features such as hedgerows, ditches, field-edges and roadside verges, but are now rarely found in cereal fields. Harvest Mice are often the most abundant small mammals in wetlands, where they occur in reed and sedge beds. The most obvious signs of the presence of Harvest Mice are the characteristic breeding nests woven of grass leaves well above ground level.



Harvest Mice are extremely active climbers and feed in the stalk zone of long grasses and reeds. They eat a mixture of seeds, berries and insects, although moss, roots and fungi may also be taken. Harvest Mice are caught and eaten by many predators including Cats, Weasels, Stoats, Foxes, Owls, Hawks and Crows.

CURRENT STATUS

The Harvest Mouse was once described as '*common and widespread*' throughout Britain, but the national distribution has become more limited in recent years. The current distribution and status of the species is not certain. The Harvest Mouse is mainly found from central Yorkshire southwards with isolated records from Scotland and Wales.

Old Main Drain, which runs from north to south along the eastern edge of North Bransholme, is a stronghold for the Harvest Mouse in Hull. Insensitive mowing has damaged the scrubby strip between Old Main Drain and the North Bransholme housing. The once varied vegetation has been reduced to inch-long grass. This will have affected Harvest Mice, although they are still present in the hedgerow along the drain itself and the adjoining arable fields. The drain hedgerow and arable area directly opposite Highlands School/Health Centre is especially good for Harvest Mice.

CURRENT FACTORS AFFECTING HARVEST MICE

- § Modern agricultural techniques have negatively affected Harvest Mouse populations in a number of ways. Removal of hedgerows has resulted in loss of winter refuges and corridors that were previously used to colonise other sites. Changes from spring to winter sown crops means that harvests often occur earlier, before the peak of the Harvest Mouse breeding season. The shorter stemmed cereals now grown are also less suitable for nest building. Drainage of wetlands for agriculture has removed much of the favoured reed and sedge habitat. Harvest Mice eat insects therefore the increasing use of insecticides may have contributed to the decline in numbers. They are also sensitive to herbicide and fungicide poisoning.
- § Many areas in Hull are becoming unsuitable habitats for Harvest Mice due to insensitive management such as frequent mowing of grass verges.
- § Harvest Mice have a range of predators and this may be a factor in the loss of some populations.
- § In urban areas, continued absence from suitable habitats may be due to the effects of habitat fragmentation and isolation.

SPECIES ACTION PLAN

CURRENT ACTION

Legal Status

Harvest Mice are not legally protected in Britain

Management, Research and Guidance

The Mammal Society has initiated two national surveys. One includes over 800 sites and simply looks for the nests. The second involves 25 groups in Britain using tennis balls as feeders. The Wildlife Trust is providing tennis balls, which can be used as artificial nests in areas of identified conservation need. The new homes have been regularly checked to see if Harvest Mice are using them, however the project has not been very successful so far.

There is currently no action for Harvest Mice in Hull.

ACTION PLAN AIMS

1. To determine the population and distribution of Harvest Mice in Hull.
2. To relax mowing regimes on grass verges, river/drain banks and amenity grassland.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection To relax mowing regimes on grass verges and river/drain banks. To leave uncut margins on amenity grassland.	Short Term: To review mowing regimes on grass verges and river/drain banks. Medium Term: To relax mowing regimes on grass verges and river/drain banks where appropriate.	KuHCC (Highways), EA	2
	Short Term: Develop two example sites. Medium Term: Leave uncut margins on half of the City's playing fields. Long Term: Leave uncut margins on all playing fields.	KuHCC (Parks and Open Spaces)	2
Advisory No advisory action proposed.			

SPECIES ACTION PLAN

<p>Future Research and Monitoring</p> <p>Determine the population and distribution of Harvest Mice in Hull.</p>	<p>Short Term: Carry out surveys to locate Harvest Mouse nests.</p> <p>Ongoing: Repeat surveys every two years to monitor changes in distribution.</p>	<p>YWT</p>	<p>1</p>
<p>Communications and Publicity</p> <p>Encourage people to help determine the distribution of Harvest Mice in Hull.</p>	<p>Short Term: Article encouraging people to send in records of Harvest Mice brought in by their cats.</p>	<p>YWT</p>	<p>1</p>

WHAT WE CAN ALL DO

- § Help the Biodiversity Partnership find out where Harvest Mice occur in Hull. Although you are unlikely to see a Harvest Mouse active in the wild, they may be brought in by your cat. The woven nests are also a sign of their presence.
- § Grass verges may be left uncut until late summer, so as not to disturb Harvest mice and other grassland species. Be aware that they are being specifically managed and have not been neglected.

LINKS WITH OTHER ACTION PLANS

Management of **Grassland, Trees, Scrub and Hedgerows** and reedbeds associated with **Fresh Water Habitats** will be important to the conservation of the Harvest Mouse.

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SPECIES ACTION PLAN

Hedgehog *Erinaceus europaeus*

Hedgehogs are easy to identify, as they are the only spiny British mammals. A fully-grown adult may have as many as 5000 spines. They have small ears, quite long legs, and short tail; all are covered with dense, sharp, brown spines. When they are alarmed, they roll themselves up into a tight ball so that their head and soft underside are protected by a layer of spines. Hedgehogs are found in nearly all lowland habitats, but are most abundant where there is grassland close to woodland, scrub or hedgerow. Urban and suburban gardens are particularly important for food and nesting.



Hedgehogs normally come out at night; they often travel large distances and stop to feed at various places along the way. Hedgehogs are very useful to have in the garden as they eat many common garden pests such as caterpillars, beetles and slugs. They also eat earthworms, young mice and voles and take eggs and chicks of ground-nesting birds. Hedgehogs hibernate for five to six months during the winter in nests built from leaves and grass under hedgerows, in old rabbit burrows and underneath compost heaps.

CURRENT STATUS

Hedgehogs can be found throughout Britain. The population of Hedgehogs is thought to be about 1,555,000. Hedgehogs are quite common in Hull. They are seen quite regularly along hedges and dykes throughout the City. Wawne Drain and Old Main Drain are particularly good sites.

CURRENT FACTORS AFFECTING HEDGEHOGS

- § Large numbers of Hedgehogs are killed on roads and this may be a major threat to certain populations.
- § Mowing machines and pesticides probably kill many Hedgehogs but there are no data to confirm this.
- § Hedgehogs may be burnt to death by nesting or hibernating in garden bonfire heaps.
- § Despite the ability to swim many Hedgehogs drown in garden ponds because they are unable to climb out.
- § Hedgehogs were historically killed by humans because they eat the eggs of game birds but the damage they do is relatively small compared to that done by Foxes and Crows.

CURRENT ACTION

Legal Status

Hedgehogs are partly protected under Schedule 6 of the Wildlife and Countryside Act (1981). It is illegal to trap or kill them without a licence.

Management, Research and Guidance

There is currently no research or management under way in Hull for Hedgehogs.

ACTION PLAN AIMS

1. To determine the distribution of Hedgehogs in Hull.

SPECIES ACTION PLAN

2. To encourage people to provide Hedgehog-friendly environments in their gardens and allotments.
3. To ensure Hedgehog-friendly management of parks, grasslands, woodlands and other habitats throughout Hull.
4. To provide advice on how to manage habitats for Hedgehogs.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Avoid use of slug pellets in gardens and allotments.	Ongoing: Use alternatives to slug pellets in gardens and allotments e.g. beer traps.	HEROGA	2
Advisory Produce information leaflet on how to make gardens more Hedgehog-friendly. To ensure Hedgehog-friendly management in parks.	Short Term: Produce a leaflet highlighting the dangers to Hedgehogs in gardens and provide advice on how they can be made more Hedgehog-friendly places. Ongoing: Avoid use of slug pellets.	YWT KuHCC (Parks & Open Spaces)	2, 4 3
Future Research and Monitoring Ask public to provide details of where they have seen Hedgehogs.	Short Term: Article in local press asking for local sightings.	YWT	1
Communications and Publicity Increase awareness of dangers to Hedgehogs in gardens.	Short Term: Article in press highlighting dangers in gardens.	YWT, HWW	2, 4

WHAT WE CAN ALL DO

- š If you have a steep-sided pond make sure there is a place where hedgehogs and other creatures can crawl out.

SPECIES ACTION PLAN

- š Avoid the use of slug pellets and other chemicals as they can poison hedgehogs and other animals that eat slugs and snails.
- š Always check for the presence of Hedgehogs before lighting a bonfire, particularly in winter months when they may be hibernating.
- š Let the Biodiversity Partnership know if you have Hedgehogs in your garden.

LINKS WITH OTHER ACTION PLANS

Management of **Trees, Scrub and Hedgerows, Parks, Golf Courses and Cemeteries and Gardens and Allotments** will be important for Hedgehogs.

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House Martin *Delichon urbica*

House Martins have a blue-black back, slender black wings adapted for fast flight, and pure white underparts. Their broad white rump instantly tells them apart from other similar birds. Their black tail is clearly forked which gives them excellent manoeuvrability when in flight. House Martins are perfectly adapted to life in the air and much of their time is spent on the wing, although they readily settle on buildings and telephone wires. They also have to come down to the ground to collect mud for their nests from the fringes of ponds, muddy gateways and roadside puddles. House Martins feed on a wide variety of insects caught high above the ground.

House Martins are summer visitors to Britain, they arrive in spring to breed, leaving in September for the long journey back to Africa where they spend the winter. House Martins usually nest in colonies that range from loose gatherings of a few pairs to several hundred closely-packed nests. They build mud nests on the outer walls of buildings, often under the eaves, and are commonly found in villages, towns and even highly urbanised areas. In recent years House Martins have been recorded breeding much nearer the centres of many British cities, illustrating the improvement in air quality in the last 50 years.

CURRENT STATUS

House Martins are found throughout Europe, up to an altitude of 2000 metres. They are summer visitors and spend the winter in tropical Africa south of the Sahara. They breed across the whole of the UK, with the exception of the Outer Hebrides, Orkney and Shetland. The highest densities occur in East Anglia, parts of S and W Scotland, the West Midlands and Yorkshire.

There have been no major changes in distribution of House Martins since the early 1970s. There have been some changes at the edge of their range but on the whole the distribution of the species is regarded as being static. It is estimated that there are 250,000 to 500,000 pairs of House Martin in Britain. Nationally the population appears to be undergoing a slow, shallow decline, although firm evidence of the rate and extent of such a decline is lacking and there is significant variation from place to place.

The House Martin appears on the UK Biodiversity Steering Group '*Long List of Threatened/Declining Species*' but does not appear on the RSPB Red or Amber list of '*Birds of Conservation Concern*'.

The House Martin is a sparsely distributed breeding bird throughout the Hull area but is a common passage migrant and a familiar summer visitor. House Martins tend to arrive in Hull in the last week of April and records illustrate that they have been breeding around Hull for many years. Small colonies have existed on Chanterlands Avenue and Newland Avenue for over 100 years. It is thought that the number of House Martins in Hull has declined markedly since the 1980s.

CURRENT FACTORS AFFECTING HOUSE MARTINS

- § The availability of mud may affect the nesting success of House Martins.
- § Air pollution can be a serious threat to birds in urban areas. In Europe, House Martins are rare or absent in areas of high air pollution.
- § House Martins attach their nests to buildings. Modern houses are often constructed in ways that exclude birds from potential nesting areas. There have also been cases of people destroying nests, which is illegal and carries a strict penalty.
- § Predation by domestic animals such as cats can be a problem.
- § The availability of airborne insect food is a limiting factor. Increasing 'tidiness' and pesticide use in both gardens and public greenspaces reduces food availability.

SPECIES ACTION PLAN

§ Factors operating in the African wintering grounds may also influence breeding populations.

CURRENT ACTION

Legal Status

House Martins are protected under the Wildlife and Countryside Act (1981). It is illegal intentionally to use any method to disturb or kill them, and to take, damage or destroy their nests while the nest is in use or being built. House Martins tend to suffer from intentional nest destruction because people do not always appreciate them nesting on their houses. Householders should be aware that destruction of nests carries a maximum penalty of £5000 or a six-month prison sentence.

Management, Research and Guidance

Concern for House Martins was raised in 1998 when reports to RSPB suggested many birds failed to return to their traditional nesting sites. Since 1998 the RSPB have been asking for information from everyone with House Martins nesting on their houses. It is hoped that annual monitoring schemes will help to show whether numbers are declining. There is no current conservation action for House Martins nationally, although advice is provided by the RSPB.

ACTION PLAN AIMS

1. To determine the status of House Martins in Hull.
2. To carry out continued monitoring to highlight changes in House Martin numbers.
3. To ensure House Martin-friendly features are included in new houses.
4. To promote the erection of artificial nests to encourage House Martins.
5. To discourage the illegal destruction of nests.
6. To encourage cat owners to put bells on their cats.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation Ensure inclusion of features useful to wildlife through the planning process.	Medium Term: Produce 'Supplementary Planning Guidance' on building for wildlife.	KuHCC (Planning)	3
	Ongoing: Ensure planned developments have roof features suitable for House Martins.	KuHCC (Planning, Design Agency)	3
Habitat Management and Protection Erection of artificial nests on suitable buildings.	Ongoing: Encourage residents to put up nest boxes.		4

SPECIES ACTION PLAN

Provide advice on how to cope with problems associated with nests on houses.	Ongoing: Provide advice on how to reduce the effects of droppings and parasites.	RSPB	4
Advisory Provide advice on building nest boxes suitable for House Martins.	Ongoing: Provide advice on building House Martin nest boxes.	RSPB	4
Future Research and Monitoring Determine location of House Martin colonies in Hull.	Short Term: Ask residents to send in details of House Martin nests on their houses. Ongoing: Monitor known nest sites every year to track population changes.	HVWG, EYB	1 2
Communications and Publicity Article to highlight declining status of House Martins in Hull and suggest action residents can take to encourage the bird.	Short Term: Article in press to highlight House Martin decline in Hull and advise residents how they can encourage the bird.	HVWG	4, 6

WHAT WE CAN ALL DO

- š Help to determine the distribution of House Martins in Hull by letting the Biodiversity Partnership know if they nest on your house.
- š House Martins feed entirely on insects so they cannot be attracted by providing food, but a muddy pool or puddle where they can collect nesting material is helpful, especially during a dry spring.
- š House Martins can be encouraged to nest by providing artificial nests, advice on where to get artificial nests or how to make one yourself can be found in the free RSPB '*House Martin Information Leaflet*'.
- š It is illegal to destroy House Martin nests. If you see someone destroying a nest contact the Police Wildlife Liaison Officer.
- š House Martins are at risk of being caught by cats, especially when on the ground collecting mud. A bell on a cat's collar may alert birds to their presence.

LINKS WITH OTHER ACTION PLANS

Management of **Gardens and Allotments** and **The Built Environment** may be important to the House Martin.

SPECIES ACTION PLAN

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Lichens

Lichens are a large and successful group of plants. Each species consists of a fungus living in very close association with an alga. This relationship, known as symbiosis, produces a more elaborate and longer-lived plant than either partner can form alone. Lichens occur in a great variety of forms and range from dull grey-brown to brilliant yellow or orange-red in colour. Lichens are often the first living things to colonise new surfaces. They grow on many surfaces including trees, rocks, soil and buildings. Lichens get their energy from sunlight in the same way as green plants. They do not 'feed' on the stone, bark or soil upon which they grow. They are unlikely to damage the surface on which they are growing, and in some cases may protect it from damage caused by weathering.



Most lichens are highly sensitive to air and soil pollution, and are therefore used as environmental indicators. In highly urban areas, few lichen species are found since most species cannot tolerate even moderate levels of air pollution. However, a few species are able to grow in areas with appreciable pollution levels and are commonly found on pavements, walls and tree bark in cities. If you have lichens growing near your house consider yourself lucky as it means you breathe clean air.

CURRENT STATUS

More than 18,000 lichen species have been described, but it is estimated that there are about 30,000 species world-wide. There are over 1,500 lichen species in Britain, but between 5 and 10 new species are discovered each year. Most lichens grow better in moist conditions so in Britain there are more species in the north and west. Since industrialisation many lichens have become extinct in large areas of lowland Britain. Lichens are returning to many inner city areas following introduction of stricter pollution control measures. This trend is mirrored in many parts of Europe, North America and Japan.

Until very recently, little was known about the lichens that grow in Hull, although there are numerous records for the surrounding area. A wide variety of the habitats in the city were surveyed in 2002. The survey identified over 50 species, this number compares favourably with the 147 species recorded for the rural areas surrounding the city. Although there are no lichens in Hull which require special protection, there are habitats supporting relatively rich and improving lichen assemblages, such as the mature trees and thickets on golf courses and roadsides with wide verges. Many of the older buildings in the city have a diverse range of associated lichens and should be considered in terms of their plant interest as well as historical value.

CURRENT FACTORS AFFECTING LICHENS

- § The range of lichen species and their distribution within the City is mainly dependent on the air quality. The city can be split into zones: an inner zone of 1 to 4 species, an intermediate zone of 5 to 8 species, and towards the boundary of the city an outer zone of more than 8 species.
- § The level of nutrients available also determines the range of species that can grow. Lichens are often found in areas where high nutrient levels accumulate, such as bases of posts or trees used by dogs, places where bird droppings build up, or cracks where water runs down trees. High levels of nutrients can also build up from use of garden and agricultural chemicals or from industry.
- § Many of the commonly planted trees in the city, such as Plane, Beech, Cherry and Hawthorn are poor for lichens.
- § Vandalism, in some cases, also affects the lichens present.

SPECIES ACTION PLAN

CURRENT ACTION

Legal Status

None of the lichens found in Hull are specifically protected, although all plants are protected by the Wildlife and Countryside Act (1981). It is illegal to uproot any wild plant without permission from the landowner or occupier. The Countryside and Rights of Way Act (2000) increases the penalties for these offences.

Management, Research and Guidance

The British Lichen Society publishes a range of information on lichens, including leaflets on '*Churchyard lichens*' and '*Lichens on man-made surfaces*'.

The Hull Biodiversity Partnership recently commissioned a lichen survey for the City. The study identified 52 lichen species that occur in Hull. Many different species were found on tree trunks and twigs, and also on stonework, brickwork, cement and other man-made surfaces. Fewer species were found to occur over mosses or on timber, and no species that grow on soil were found. The study provides clear evidence that the city's lichen flora reflects atmospheric improvements. The range of lichens particularly those which grow on trees, noticeably improved (i.e. increase in variety, cover and luxuriance) with distance from the city centre in all directions, with the exception of the easterly route where only a marginal improvement was detected. This study provides baseline information that can be used to evaluate future impacts, whether positive or negative, on Hull's lichens, and the quality of our environment.

ACTION PLAN AIMS

1. To use the baseline data to determine changes over time in the lichen species present in Hull.
2. To highlight the link between lichens and air quality.
3. To continue survey work within the City to identify lichens in a wide range of habitats.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection No habitat or species management proposed.			
Advisory No advisory action proposed.			
Future Research and Monitoring Carry out continued monitoring of the lichens present in Hull.	Ongoing: Biennial monitoring of lichens in Hull.		3

SPECIES ACTION PLAN

Determine major factors affecting lichens in Hull.	Ongoing: Determine major factors affecting lichens in Hull.		3
Communications and Publicity Highlight the link between air quality and lichens.	Short Term: Article in press to highlight the link between air quality and lichens.	HBP	2

WHAT WE CAN ALL DO

- § Do not remove lichens, they take a very long time to grow, but add character to buildings and stonework and are unlikely to damage the surface.
- § If you want to encourage lichens to grow on new surfaces send for the British Lichen Society leaflet '*Lichens on man made surfaces*' which suggests a number of ways to encourage lichens, including painting new buildings with yoghurt, beer, porridge and even cow slurry!

LINKS WITH OTHER ACTION PLANS

This plan should be considered along with those for **The Built Environment, Parks, Cemeteries and Golf Courses, Grassland and Trees, Scrub and Hedgerows**. **Wall Ferns** often share similar habitats and these species may require similar action.

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Linnet *Carduelis cannabina*

Linnets are fairly small birds that belong to the finch family. In the breeding season males have a grey head with white throat, a crimson breast and forehead and a chestnut-brown back, with white edges to primaries and tail feathers. In winter they lose their grey head and crimson colour, becoming duller, with a streaky breast more like the female and juvenile.

Linnets are lowland farmland birds. They prefer areas of scrub such as Gorse or Blackthorn, suitable hedges, especially Hawthorn, or low trees. They may also be found in orchards, heathland, uncultivated land and saltmarshes and are becoming more common in parks, gardens and other suburban habitats. Linnets tend to form loose neighbour groups of up to 20 or so pairs for nesting, starting in mid-April and continuing to breed until early August. They raise two or three broods with four to six bluish spotted eggs in a clutch. The adults and chicks feed on a wide variety of wildflower and crop seeds. After breeding, large flocks form on stubbles, set-asides, fallow fields and waste ground.

CURRENT STATUS

Linnets are widespread and common across mainland Europe but their range has contracted and numbers declined in north-west and central Europe. The bird is abundant and widespread across the British countryside. In common with most other lowland farmland birds, Linnets are in decline. Between 1968 and 1991 the population fell by 56% and is now down to less than 540,000 territories. The range has also decreased. Linnets are on the RSPB Red List of '*Birds of Conservation Concern*'. Although they have shown some signs of a recent recovery nationally, action is required to raise their numbers to previous levels. Linnets are also included on the UK Biodiversity Steering Group '*Middle List of Globally Threatened/Declining Species*'.

Within Hull there is very little farmland but several typical farmland birds, including Linnets, are just surviving on the north-east boundary of the city, particularly East Carr and North Carr. Linnets are quite common in this area with 10 to 15 breeding pairs. Large winter flocks of more than 200 individuals have also been recorded. Scrub habitats are important for Linnets in Hull. Disused land and land associated with railways are particularly important habitats. Flocks of Linnets have been sighted to the west of St Andrew's Quay and Victoria Dock. Linnets seems to be surviving well in Hull despite the national decline but the large flocks reported in the early 1990s are becoming less common.

CURRENT FACTORS AFFECTING LINNETS

- § The recent decline of Linnets has occurred at the same time as decreases in the numbers and/or range of other farmland birds with similar diets. It is thought that changes in agricultural practices are responsible.
- § The increased use of herbicides and loss of field margins has resulted in loss of weeds on which Linnets prefer to feed.
- § The switch from spring-sown to autumn sown crops has led to the loss of winter stubble fields. There has also been a general reduction in farmland habitat diversity due to the decline of mixed farming and increased specialisation.
- § The removal of hedges and unmanaged scrub, combined with the increased frequency and severity of hedge trimming and heavy grazing in some areas, may have led to the losses of suitable nesting habitat.
- § Within Hull many of the scrub areas, allotments and dockland where Linnets used to breed have been subject to development. Insensitive mowing is damaging Old Main Drain at North Bransholme, which is home to several breeding pairs of Linnet.

SPECIES ACTION PLAN

CURRENT ACTION

Legal Status

The Linnet is protected under the EU Birds Directive. It is also listed on Appendix II of the Bern Convention. In England all wild birds, their nests and their eggs are protected by the Wildlife and Countryside Act 1981 (amended by the Countryside and Rights of Way Act 2000). The Wildlife and Countryside Act makes it an offence intentionally to kill, injure or take any wild bird. It is also illegal to take, damage or destroy the nest of any wild bird while it is in use or being built or to take or destroy the egg of any wild bird. The Linnet is also listed in Schedule 3 of the Act which means that it may be sold only if it is ringed and bred in captivity.

Management, Research and Guidance

The UK Biodiversity Steering Group has produced an Action Plan for the Linnet. The plan seeks to halt or reverse the decline in numbers by the year 2003, then see a sustained recovery so that the Breeding Bird Survey (BBS) index is at least 50% higher than the 1996 levels and the range has recovered to 1968-1972 levels by 2008. The UK plan also encourages further research. The plan stresses the importance of monitoring the population to enable trends to be identified. Monitoring will be achieved through the annual Breeding Birds Survey.

The British Trust for Ornithology (BTO) and Joint Nature Conservation Committee (JNCC) have organised a winter farmland bird survey for three successive winters from 1999/2000. This aims to encourage members of the public to record winter numbers and locations of winter farmland birds, including Linnets.

The RSPB has recently purchased a 180-hectare farm in Cambridgeshire, which will be used to investigate and develop new wildlife-friendly farming methods to benefit birds such as the Linnet. The farm will allow the RSPB to carry out a detailed programme of research to devise and test new cropping techniques for the future, which farmers will be able to incorporate on farms throughout the UK. The new carefully costed techniques, designed to provide specific wildlife benefits, could include the provision of thinly cropped nesting areas for Skylarks, and less intensive cultivation techniques that leave seeds in the fields for Linnets and other finches in winter.

Within Hull, there are many local people who record bird sightings, which is very useful for monitoring the population in Hull. The recently published 'Birds of the Hull Area' contains detailed information on every bird species recorded in the city and the immediate parts of the East Riding. However, there is currently no local action under way for Linnets.

ACTION PLAN AIMS

1. To evaluate the size and distribution of Hull's breeding and wintering Linnet population.
2. To monitor the Linnet population to determine changes in numbers and distribution.
3. To improve existing hedgerows and increase the length of hedgerow in Hull to provide nesting habitat.
4. To improve hedgerow management.
5. To leave uncut margins on grass verges and amenity grassland to provide a seed source for Linnets.
6. To encourage management practices on farmland, golf courses and other relevant land that would favour Linnets.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Leave margins uncut on amenity grassland.</p>	<p>Short Term: Leave uncut margins on two amenity grasslands as demonstration sites and develop management plan. Medium Term: Uncut margins on half of the City's playing fields. Long Term: Uncut margins on all playing fields.</p>	KuHCC (Parks and Open Spaces)	5, 6
<p>Relaxation of mowing regimes on grass verges.</p>	<p>Short Term: Review mowing regimes and identify sites for pilot scheme. Medium term: Relax mowing regimes where possible and develop management plan.</p>	KuHCC (Highways)	5, 6
<p>Ensure that scrub is well-represented across Hull and within a range of habitats.</p>	<p>Ongoing: Identify important scrub areas and carry out management to stop valuable scrub habitats turning to woodland.</p>	KuHCC (Parks and Open Spaces)	6
<p>Plant hedgerows in suitable habitats.</p>	<p>Ongoing: Planting of hedgerows around allotments, parks, golf courses and cemeteries where appropriate.</p>	KuHCC (Parks and Open Spaces)	3, 6
<p>Improve hedgerow management.</p>	<p>Ongoing: Plant gaps in hedgerows with native, thorny species that will provide nesting cover.</p>	KuHCC (Parks and Open Spaces)	3, 4, 6
<p>Advisory No advisory action proposed.</p>			
<p>Future Research and Monitoring Evaluate the size and distribution of Hull's breeding and wintering Linnet populations.</p>	<p>Short Term: Identify distribution of the Linnet.</p>	HVWG, EYB	1

SPECIES ACTION PLAN

Continue monitoring to determine changes in population.	Ongoing: Annual monitoring of known breeding sites.	HVWG, EYB	2
Communications and Publicity No communications or publicity proposed.			

WHAT WE CAN ALL DO

- § Let the Hull Biodiversity Partnership know if you see Linnets in Hull.
- § Be aware of the need for areas of uncut grass to encourage and protect wildlife.
- § Encourage the planting of new hedges around school fields and amenity areas.

LINKS WITH OTHER ACTION PLANS

Habitat management will be very important for this bird and the action plan should be considered in conjunction with those for **Trees, Scrub and Hedgerows, Industrial Land, Grassland and Parks, Golf Courses and Cemeteries**. It is likely that the implementation of this plan will also benefit other birds such as the **Reed Bunting, Skylark, Song Thrush and Tree Sparrow**.

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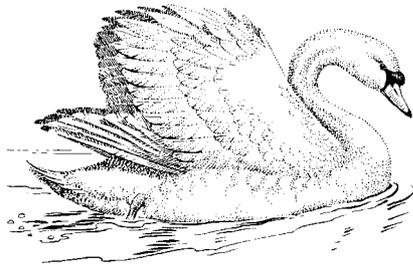
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SPECIES ACTION PLAN

Mute Swan *Cygnus olor*

Mute Swans are one of the most easily identifiable British birds. The adult's plumage is pure white and the neck is long and curves in a graceful 'S' shape. The head is small with an orange-red beak, tipped with a black nail. There is a black knob over the nostrils at the base of the bill. The webbed feet are also black.



Mute Swans are a familiar sight on many rivers, canals, lakes and ponds, in both urban and rural areas. They are among the largest and heaviest birds that can fly and because of this require large areas of water to take off. Swans use their long neck to feed on underwater plants, which make up the bulk of their diet. They also eat algae and shore plants and occasionally will take worms, insects and fish. Swans also swallow grit and fine gravel to help grind up food.

Swans start to breed when they are 3-4 years old and often a pair will stay together for life. In early spring established pairs carry out elaborate courtship rituals and begin building their large sturdy nests from sticks and vegetation at the water's edge. During the breeding season males become very territorial and aggressive to any intruders and will snort and hiss noisily if they feel threatened. In late April about six round, greyish-green eggs are laid. When the cygnets hatch they are grey and downy. This down is soon replaced by brown feathers that gradually turn white during the next 12 months. The cygnets stay with their parents until the following breeding season; they are then driven away and normally join flocks of other non-breeding Swans.

CURRENT STATUS

Mute Swans are widespread but mainly lowland birds, rarely occurring above altitudes of 300m. A recent estimate (1997) suggests a population of 28 000 to 30 000 Mute Swans in Britain. Their distribution has changed little between the early 1970s and early 1990s but there have been wide variations in population size over this period. Mute Swan populations decreased dramatically in the 1960s but have increased continually since the mid-1980s. The Mute Swan appears on the UK Biodiversity Steering Group '*Long List of Globally Threatened/Declining Species*' but is not on the RSPB list of '*Birds of Conservation Concern*'.

Mute Swans have never been particularly common within Hull. Their population is restricted by the number of suitable waterbodies. A pair of Swans breeds annually in East Park, although they are not always very successful. Successful breeding has taken place in Pickering Park. Pairs and family groups have been regularly recorded on the Holderness Drain at North Bransholme and a pair regularly breeds on the Barmston Drain near Hall Road. The reservoir at Bransholme Sewage Works used to hold the largest numbers of Mute Swan in Hull. Mute Swans often become scarce in late summer as many birds leave to undergo their moult at traditional gathering places such as Hornsea Mere. Numbers build up again by late September and several additional pairs usually appear in East Park, on the larger drains and ponds or even on the Humber, until they leave to find nesting sites in March.

CURRENT FACTORS AFFECTING MUTE SWANS

- š Death by lead poisoning has been a major cause of Swan death in the past. Many Swans died because they were swallowing lead fishing weights with the grit they use to grind their food. When lead is consumed it is absorbed into the bloodstream. Lead is very poisonous and causes muscular problems, giving Swans the appearance of having a kinked neck because the muscles weaken and the bird is unable to support its neck correctly. Lead fishing weights have now been banned so the Swan population is recovering. It is suspected that lower levels of lead poisoning may contribute to deaths caused by flying accidents because agility and eyesight may be affected.

SPECIES ACTION PLAN

- § Entanglement in fishing tackle can also be a problem to Swans. Discarded fishhooks and lengths of nylon fishing line can both cause a Swan to suffer a painful death.
- § In urban areas Swans often attract unwanted attention. Within Hull there have been observations of people shooting and throwing stones at Swans. A nest at North Carr in Bransholme was abandoned in 2001 after the Swans were disturbed by a four-wheel drive off-road vehicle being driven through the pond.

CURRENT ACTION

Legal Status

Swans are protected under the Wildlife and Countryside Act (1981). It is an offence intentionally to injure, take or destroy a wild Swan. It is an offence to take or possess the egg of a wild Swan, or to damage or destroy the nest whilst it is in use or being built. The Mute Swan is also listed in Appendix II of the Bonn Convention.

The Mute Swan has been a royal bird since at least 1186. The Swan's royal status was formally recognised in the 'Act of Swans' which came into force in 1482. The Act provided formal legislation concerning the ownership and marking of Swans. The Crown granted privileges of keeping Swans on open and common waters provided they were marked. All unmarked Swans belong to the Crown. On the Thames, at the annual 'Swan-apping', the cygnets are still marked on the beak as either the property of the Crown or of the two privileged City of London companies, the Dyers and Vintners. More recently, a specific clause was made in The Wild Creatures and Forest Law Act (1971) to safeguard the Queen's rights of ownership of Swans.

Management, Research and Guidance

Changes in the numbers of breeding birds, including Swans are measured by the BTO Common Birds Census (CBC), which ran from 1962-2000. This scheme mapped the territories of common birds on 200 to 300 farmland and woodland plots. The Breeding Bird Survey (BBS) began in 1994 and has replaced the CBC as the major monitoring scheme for land birds. It is based on 2300 1km squares, in which bird-watchers count and record birds along a 2km transect walked in a standardised manner within each square. All habitats and regions are well covered by the survey because the squares are chosen randomly by computer. The BTO Waterways Breeding Birds Survey (WBBS), which began in 1974, maps the territories of birds on rivers, streams and canals on 100 to 300 plots, covering an average length of 4.5km each.

Within Hull, local bird watchers keep records of sightings of birds including Swans. This information is useful to determine changes in numbers and distribution of the bird.

ACTION PLAN AIMS

1. To determine the distribution of Mute Swans within Hull.
2. To monitor known Mute Swan breeding sites.
3. To encourage people to contact the Police Wildlife Liaison Officer if they see people attacking birds or damaging their nests.
4. To encourage anglers not to leave any fishing hooks or line where it may cause damage to Swans.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection No habitat/species management or protection proposed.			
Advisory Advise anglers not to discard fishing hooks, weights or line.	Ongoing: Highlight dangers to wildlife of discarded fishing tackle.	EA, EN, KuHCC (Parks and Open Spaces)	4
Future Research and Monitoring To determine the distribution of Swans within Hull. To monitor known Swan breeding sites.	Short Term: Survey to determine the distribution of Swans. Ongoing: Monitor known breeding sites annually to determine changes in numbers.	HVWG, EYB HVWG, EYB	1 2
Communications and Publicity To encourage people to contact the Police Wildlife Liaison Officer if they see people attacking Swans or their nests.	Medium Term: Article in press highlighting past attacks on Swans and asking public to contact police in future.		3

WHAT WE CAN ALL DO

- š Contact the Police Wildlife Liaison Officer if you see people attacking Swans or their nests.
- š When fishing do not discard fishing line, weights or hooks.
- š Help the Biodiversity Partnership to determine the distribution of Swans in Hull by letting them know where Mutes Swans are nesting.
- š If you go fishing make sure you remove all your hooks and lines before leaving.

SPECIES ACTION PLAN

LINKS WITH OTHER ACTION PLANS

The management of **Fresh Water Habitats** will be important to the conservation of Swans.

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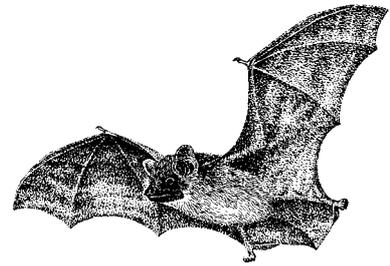
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Pipistrelle Bats *Pipistrellus* spp.

Bats are the world's only true flying mammals and one of the most diverse mammal groups on Earth. There are 16 recognised species of bats breeding in the UK. The Pipistrelles are Britain's smallest bats. They have a head and body length of about 4 cm and a wingspan of 20 cm. They weigh only 5g, which is less than a two pence piece. Pipistrelles can vary in colour but are usually medium to dark brown on the back and a little paler underneath. There are two distinct forms of Pipistrelle bats, the Common Pipistrelle (*Pipistrellus pipistrellus*) and the Soprano Pipistrelle (*Pipistrellus pygmaeus*).



Pipistrelles are associated with most habitats, particularly woodland edge, hedgerows and gardens, they are often seen around water. Pipistrelles are the most common bats in towns and suburbs. Pipistrelles catch their food in flight and usually eat while on the wing. They mainly eat flies such as Midges and Caddis flies. They will also take Mosquitoes, Gnats, Mayflies, Lacewings and occasionally small Moths.

During the summer, female Pipistrelles group together to form large 'maternity colonies' to have their young. They will use buildings, trees and bat boxes. They spend the day in roosts, then come out at dusk to feed. Pipistrelles generally choose undisturbed, cool places with an even temperature in which to hibernate throughout the winter.

CURRENT STATUS

Pipistrelles are found throughout the UK. They are also abundant and widespread in the rest of Europe. Although they are the most common British species, Pipistrelles are thought to have undergone a significant decline in numbers. Estimates suggest a population decline of approximately 70% between 1978 and 1993. Pipistrelles were therefore included on the UK Biodiversity Steering Group 'Short List of Globally Threatened/Declining Species'. There are problems with estimating population trends due to the recent discovery that what was thought to be one species is actually two, the Common Pipistrelle and the Soprano Pipistrelle.

The Common Pipistrelle is widely distributed throughout the area surrounding Hull, and there are several recorded roost sites within the city. There are no records for the Soprano Pipistrelle in Hull, it is thought to be a more rural species, whereas the Common Pipistrelle is better adapted for the urban environment.

CURRENT FACTORS AFFECTING PIPISTRELLES

- § The increased use of insecticides has reduced the amount of insect prey available to Pipistrelles during their active season.
- § Loss and fragmentation of insect-rich feeding habitats and flyways, for example woodlands, woodland edge, field margins, wet pasture and other suitable habitat types, may also be a factor in their decline.
- § Disturbance and destruction of roosts, for example the loss of access to actual or potential sites through building alterations and loss of maternity roosts through the use of toxic chemical timber treatments.
- § Widespread misunderstanding of legislation protecting bats, leading to loss or damage of many roosts when consultation procedures have not been carried out.
- § Loss of winter roosts such as hollow trees and exclusion from buildings by unsympathetic roost owners.

SPECIES ACTION PLAN

CURRENT ACTION

Legal Status

Pipistrelles are listed on Appendix III of the Bern Convention, Appendix IV of the EC Habitats Directive and Appendix II of the Bonn Convention. Bats and their roosts are also fully protected under Schedule 2 of the Conservation (Natural Habitats etc) Regulations, 1994. The Wildlife and Countryside Act (1981) gives very full protection to bats because of their special requirements for roosting. It is illegal intentionally to kill, injure or handle any bat. It is also illegal intentionally to damage, destroy, or obstruct access to any place that a bat uses for shelter or protection, or to disturb a bat while it is occupying such a place. Pipistrelles return to the same places year after year and so roosts are protected even if there aren't bats there all the time. English Nature must be informed before anything is done that would affect Pipistrelles or their roosts.

Management, Research and Guidance

The UK Biodiversity Steering Group has produced a Species Action Plan for Pipistrelles. The target of the plan is to maintain and enhance the existing population and range of these bats. The plan also aims to restore populations to pre-1970 numbers. The Bat Conservation Trust (BCT) is the national lead organisation for the Pipistrelles and other priority species of bat. They have produced an action plan for the conservation of all bat species in the UK and have a national network of local groups.

The Joint Nature Conservation Committee (JNCC) recently commissioned a National Bat Habitat Survey, which provided information on habitat preference and distribution.

The National Bat Colony Survey has monitored many Pipistrelle roosts since 1978 on the basis of annual summer roost counts. The National Bat Monitoring Programme (NBMP) was started in 1995, with the overall goal of developing an effective monitoring strategy for resident species of bat in the UK. Only one roost site within Hull has been monitored for the NBMP. Data from this site suggests that the colony is relatively small (less than 50 bats), but stable.

A large amount of research is under way to investigate reproductive physiology, mating strategies, field activity, and morphology and ecology of the two Pipistrelle species by investigation of echolocation calls and genetic material.

English Nature provides advice to householders, builders and the general public in any cases where bats or roosts in a house may be harmed or endangered. English Nature also controls licensing for handling or disturbing bats for research, education and nature conservation purposes only. The Department for Environment, Food and Rural Affairs (DEFRA) controls licensing for impacts upon bats in connection with development and other operations, unless it is in a house.

The East Yorkshire Bat Group (EYBG) carries out surveys of where bats roost, feed and hibernate. They care for sick or injured bats, erect bat boxes to give safe additional roosts and offer advice and information to householders sharing their homes with bats. The group also gives talks and leads bat walks where you can see and hear wild bats.

ACTION PLAN AIMS

1. To determine the number and distribution of Pipistrelle roosts in Hull.
2. To encourage favourable management of land near known roost sites.
3. To ensure land and property owners are aware of the presence of Pipistrelles.
4. To raise the awareness of property and landowners of the endangered and protected status of pipistrelle bats and their roosts.

SPECIES ACTION PLAN

5. To provide advice on conservation management of roosts and foraging habitats.
6. To raise public awareness of the status of Pipistrelle bats through education, public events and providing information.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>No policy or legislation proposed.</p>			
<p>Habitat Management and Protection</p> <p>Ensure 'change of use' development proposals are subject to environmental surveys.</p> <p>Encourage favourable roost management by seeking advice from English Nature.</p> <p>Promote the development of diverse insect-rich habitats.</p> <p>Seek opportunities for planting broadleaved trees and woodland.</p>	<p>Short Term: Write in the necessity for environmental surveys into planning policy guidelines.</p> <p>Ongoing: Use only English Nature approved remedial timber treatments in roofs.</p> <p>Ongoing: Create a wider range of habitats and use less herbicides and insecticides.</p> <p>Ongoing: Plant more oak, ash alder and beech where appropriate.</p>	<p>KuHCC</p> <p>EN</p> <p>All</p> <p>KuHCC</p>	<p>2</p> <p>2, 3, 4, 5</p> <p>5</p> <p>2, 5</p>
<p>Advisory</p> <p>To advise property and landowners of best management practice for pipistrelles.</p> <p>To advise roost owners of the best conservation practice through English Nature.</p>	<p>Ongoing: Direct owners to published sources of information on woodland management and house and garden enhancement for pipistrelles through Bat Conservation Trust.</p> <p>Ongoing: Official advice on roost management through English Nature.</p>	<p>EYBG</p> <p>EYBG, EN</p>	<p>5, 6</p> <p>5, 6</p>

SPECIES ACTION PLAN

<p>Future Research and Monitoring</p> <p>Determine the number and location of Pipistrelle roosts in Hull.</p> <p>Recruit existing and future roost owners to the NBMP scheme.</p>	<p>Short Term: Determine Pipistrelle distribution in Hull from existing records.</p> <p>Short Term: Article to ask members of the public to inform the Biodiversity Partnership if they have Pipistrelles on their property.</p> <p>Ongoing: Use media and internet to recruit existing and future roost owners to the NBMP scheme.</p>	<p>NEYEDC</p> <p>EYBG</p> <p>EYBG</p>	<p>1, 6</p> <p>6</p>
<p>Communications and Publicity</p> <p>Raise public awareness of bats.</p>	<p>Ongoing: Give talks and bat walks.</p> <p>Ongoing: Host evening bat talks/walks at suitable venues (East Park, Pearson Park, Pickering Park).</p>	<p>EYBG</p> <p>KuHCC (Parks and Open Spaces)</p>	<p>6</p>

WHAT WE CAN ALL DO

- § By gardening in a wildlife-friendly way you will encourage a variety of animal visitors and hopefully bats will be among them. By growing night-scented flowers you can attract moths and other night flying insects that are of particular importance for bats.
- § Put up a bat box, they are similar to tree holes and are an extra option for bats searching for a roost site.
- § If you have a Pipistrelle maternity colony roosting in your house consider carrying out colony monitoring for the National Bat Monitoring Programme. This survey is appropriate for volunteers with little or no previous experience.
- § If you find a grounded or injured bat contact either your nearest Veterinary practice, the RSPCA or the East Yorkshire Bat Group Helpline.
- § Let the Biodiversity Partnership know if you are lucky enough to have bats roosting in your house.

LINKS WITH OTHER ACTION PLANS

Management of **The Built Environment** will be very important for Pipistrelles. Other habitats including **Grassland, Trees, Scrub and Hedgerows, Fresh Water Habitats, Gardens and Allotments and Parks, Golf Courses and Cemeteries** will also be important because they provide feeding habitat for Pipistrelles.

SPECIES ACTION PLAN

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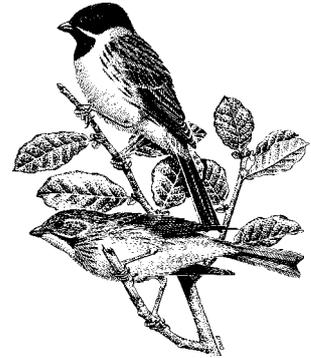
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Reed Bunting *Emberiza schoeniclus*

Reed Buntings are quite small slim birds with a long, deeply notched tail. In flight the tail looks black with broad white edges. The male has a black head with a white collar. The female has broad blackish stripes on the throat, dark brown cheeks and nape with a grey tone to the neck. The upper parts of both sexes are red/brown with darker streaking. The underparts are cream to white with thin brown stripes.

Reed Buntings usually inhabit reedbeds and other wetland habitats. In winter the birds tend to move to drier habitats such as overgrown ditches, hedgerows and gardens. Adults eat wild flower and grass seeds, with a supplement of flies, beetles, caterpillars and spiders. They feed mainly in grasslands that are not grazed or cut in the spring, such as arable field margins and hay meadows. They also find seed on cropped land, such as winter stubbles and weeds in the crop margins. They can find food in wet areas, including boggy field corners and grassy fringes of ponds and wet ditches.

Reed Buntings build their nests on or just above the ground in thick vegetation. Nest are made from grass, reeds and twigs with a soft lining of moss. Reed Buntings breed from mid-April to August. They lay up to 5 eggs, which are brown with heavy black spots and scrawls. When disturbed the parent often reacts by pretending to be injured. The young are fed almost entirely on insects until they are independent.



CURRENT STATUS

Reed Buntings are more widely distributed in Europe than any other Bunting. They are common and widespread across the British Isles as well as central and northern mainland Europe. Northern populations are migratory but the British populations tend not to migrate. A decline in Reed Bunting numbers has occurred in recent years. Data from the Common Bird Census indicates that between 1970 and 1998 the Reed Bunting population has shown a decline of 54%. The most recent population estimate (1988-91) is 240 000 breeding pairs. The bird also underwent a decline in range by around 12% between the early 1970s and the late 1980s. It is not a species of conservation concern elsewhere in Europe where it is common and widespread. The decline has resulted in its being placed on the RSPB Red List of '*Birds of Conservation Concern*'. The Reed Bunting appears on the UK Biodiversity Steering Group '*Middle List of Globally Threatened/Declining Species*'.

Records suggest that Reed Buntings have always been regular but uncommon breeding birds in Hull. Between five and eight pairs breed on the marshy field and drain banks between North Bransholme and Holderness Drain. There are recent records from the former railway sidings at Priory Park East in the south-west of the City, the Queen Elizabeth Dock area, Bransholme Sewage Works and surrounding land. Scattered pairs of Reed Buntings are still likely to breed in several other outlying areas of the city, along reedy dykes and hollows, bushy and overgrown drain banks and along the northern stretches of the River Hull.

CURRENT FACTORS AFFECTING REED BUNTINGS

- § The decline of Reed Buntings has occurred at the same time as decreases in the numbers and/or range of many other farmland birds, many of which share its diet of cereal, grass and wildflower seeds and also feed their young on insects. It is therefore likely that its decline on farmland may be largely due to changes in agricultural practice. These changes include the increased use of pesticides and herbicides, the switch from spring-sown to autumn-sown crops and the consequent loss of winter stubble fields. The more intensive use of grassland and the general reduction in habitat diversity on farmland due to the loss of mixed farming and increased specialisation may also have affected Reed Buntings.

SPECIES ACTION PLAN

- § Deterioration of wet habitats may have had a serious effect on populations. Modification of watercourses and field drains for land drainage has led to a loss in both the quantity and quality of the Reed Buntings characteristic wetland habitats.
- § Loss of small ponds and the encroachment of scrub and carr are all likely to have had adverse effects on both habitat and food for breeding and wintering populations.
- § Within Hull, the continued loss of wet and boggy habitats is likely to lead to a loss of the breeding Reed Buntings.

CURRENT ACTION

Legal Status

The Reed Bunting is listed on Appendix II of the Bern Convention and protected under the EC Birds Directive. The Reed Bunting is also protected under the Wildlife and Countryside Act (1981). It is an offence intentionally to kill, injure or take any wild bird, intentionally to take, damage or destroy the nest of any wild bird whilst it is in use or being built or to take or destroy the eggs of any wild bird. Reed Buntings are listed under Schedule 3 of the Act, which means that they can only be sold if they are ringed and have been bred in captivity.

Management, Research and Guidance

The UK Biodiversity Steering Group has prepared a Species Action Plan for the Reed Bunting. In the short term, this seeks to halt or reverse the decline in the numbers of Reed Bunting by the year 2003, so that the Breeding Bird Survey index is at least at 1996 levels. In the long term, the national plan hopes to see a sustained recovery in numbers in both wetland and farmland habitats.

The Reed Bunting had not previously been regarded as a priority species for conservation action but it is likely to have benefited from initiatives for other wetland species since it readily moves into newly created wetlands. Conservation organisations have devoted considerable resources to gaining and managing reedbeds, wet grassland, saltmarsh and other wetlands.

The RSPB is the lead partner in continuing studies to understand the reasons for the decline in numbers of the Reed Bunting and to promote actions to reverse this decline. The newly purchased RSPB farm in Cambridgeshire will be looking at sympathetic agricultural methods that will benefit declining birds on farmland.

Annual monitoring will continue through the Breeding Bird Survey organised by the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and RSPB.

Within Hull, local individuals and groups record Reed Bunting sightings but there is no current action.

ACTION PLAN AIMS

1. To determine Reed Bunting distribution in Hull.
2. To monitor Reed Bunting numbers.
3. To manage watercourses in ways that will benefit the Reed Bunting.
4. To maintain and enhance the marginal areas of fresh water habitats.
5. To increase the area of wild flowers and grasses to provide a seed source for Reed Buntings.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection To relax mowing regimes on river and drain banks. Leave margins uncut on amenity grassland. To maintain and enhance the marginal areas of fresh water habitats.	Short Term: Review the mowing regimes. Medium Term: Relax mowing regimes on some bank areas. Short Term: Develop two example sites and produce management plan. Medium Term: Uncut margins on half of the City's playing fields. Long Term: Uncut margins on all playing fields. Short Term: To plant reeds around islands in park ponds. Ongoing: Where essential works are required, attempt to translocate reedbeds.	EA, KuHCC (Parks and Open Spaces) KuHCC (Parks and Open Spaces) EA, KuHCC (Parks and Open Spaces)	3, 4, 5 5 3, 4
Advisory No advisory action proposed.			
Future Research and Monitoring To determine the distribution of Reed Buntings in Hull. To monitor the number of Reed Buntings in Hull.	Short Term: Survey to determine the distribution. Ongoing: Monitor number of Reed Buntings.	HVWG, EYB HVWG, EYB	1 2
Communications and Publicity No communications or publicity proposed.			

WHAT WE CAN ALL DO

- § Help the Biodiversity Partnership determine the distribution of Reed Bunting in Hull by telling them of any sightings.

SPECIES ACTION PLAN

LINKS WITH OTHER ACTION PLANS

The plan should be considered along with those for **Fresh Water Habitats, Estuarine Habitats, Grassland, Industrial Land, Gardens and Allotments,** and **Trees, Scrub and Hedgerows.** It is likely that the implementation of this plan will also benefit the **Linnet, Skylark, Song Thrush,** and **Tree Sparrow.**

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Saltmarsh Snails

Dun Sentinel (*Assiminea grayana*)

The Dun Sentinel is found in saltmarshes and estuaries at or just above the high-tide level, either in brackish pools or, more frequently, out of water, crawling on wet mud or sedges. It is more a terrestrial than an aquatic snail. It can often be found under stones or pieces of driftwood lying in marshy ground.

Mouse-eared Snail (*Ovatella myosotis*)

The Mouse-eared Snail is found in muddy, sheltered places at high-tide level in brackish estuaries and saltmarshes, often under driftwood and other flotsam. It lives mostly out of water and is more a terrestrial than an aquatic snail. Less often it inhabits shingle or the crevices of rocks in exposed situations. Bleached shells are sometimes common in tidal debris. It is probably a native species although in recent years there has been speculation about its status.



CURRENT STATUS

Dun Sentinel (*Assiminea grayana*)

This snail is found on the east coast of Britain. It is abundant where it occurs and gives no evidence of significant recent change. It was also recently discovered in the Shannon Estuary on the west coast of Ireland and may perhaps be a recent immigrant to that country. It is also found on West European coasts, mainly around the southern North Sea. The Humber Estuary represents its most northerly distribution in Britain. Within Yorkshire it is only known from two small areas of saltmarsh on the banks of the River Humber and it is considered vulnerable within the region.

Mouse-eared Snail (*Ovatella myosotis*)

This snail is found in scattered locations around the coast of Great Britain and Ireland. It is also found on the Mediterranean and West European coasts, north to the British Isles and Denmark. The Mouse-eared Snail remains common in suitable situations and gives no evidence of regional change. The fact that this species is usually abundant where it occurs tends to mean that it is not considered a species that requires conservation. However, in Yorkshire this is not the case. The habitat is very restricted and is easily destroyed.

The reedbeds bordering the River Humber at Hessle near the city boundary are now the main habitat for both of these species in Yorkshire.

CURRENT FACTORS AFFECTING SALTMARSH SNAILS

- § Both snails are restricted to very specific saline habitats and loss of habitat due to sea level rise and development is affecting the species, for example, loss of habitat due to footpath creation and railway embankment work near Hessle.
- § Pollution may also affect these species.

CURRENT ACTION

Legal Status

Neither species have any international or national designations but they are listed as vulnerable in the Yorkshire Red Data Book for Land and Freshwater Molluscs.

SPECIES ACTION PLAN

Management, Research and Guidance

There is currently no information available on management for these species and no action for them in Hull.

ACTION PLAN AIMS

1. To continue monitoring the Dun Sentinel and Mouse-eared Snail.
2. To protect remaining area of saltmarsh.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Protect remaining saltmarsh from development.	Ongoing: Do not allow any development or other activities that may negatively affect saltmarsh habitat.	KuHCC (Planning), EA	2
Advisory No advisory actions proposed.			
Future Research and Monitoring Monitor populations of Dun Sentinel and Mouse-eared Snail.	Ongoing: Continued monitoring of distribution of Dun Sentinel and Mouse-eared Snail.		1
Communications and Publicity No communication or publicity proposed.			

WHAT WE CAN ALL DO

š No public action suggested.

LINKS WITH OTHER ACTION PLANS

Protection of **Estuarine Habitats** is essential for the survival of the Dun Sentinel and Mouse-eared Snail.

SPECIES ACTION PLAN

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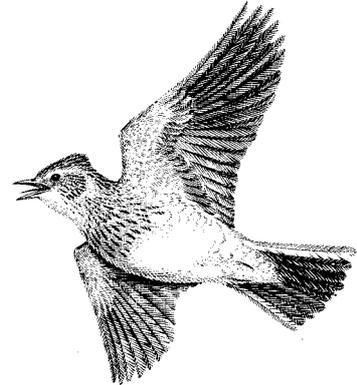
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SPECIES ACTION PLAN

Skylark *Alauda arvensis*

Skylarks are small streaky brown birds with a small crest, which can be raised when they are excited or alarmed. They have a white-sided tail and the wings also have a white rear edge, which is visible in flight. Skylarks have a strong bill and a somewhat open-faced appearance due to a pale eye-ring.

Skylarks are generally found in lowland farmland. They prefer open habitats and like areas with a covering of grass, they avoid isolated trees and tall hedges. In winter they favour stubble fields, root crops and young pasture. Skylarks also occur in man-made habitats such as golf courses and playing fields. They feed on the ground and consume a wide range of invertebrates, seeds and leaves. Their diet varies according to the season and environment. In winter some birds feed individually, but often they form large flocks that can number thousands of birds.



They are ground nesting birds and breed from April to early August according to the ground cover. A pair will lay one to four clutches, each of three to five grey-white, thickly spotted eggs. The chicks are fed by both parents entirely on insects for the first week, gradually introducing small quantities of shoots and seeds until they are on a fully mixed diet at fledging.

CURRENT STATUS

Skylarks are found from Ireland and Portugal in the west, throughout Europe and as far east as Japan and the Pacific coast of Russia. They also live in north Africa from Morocco across to Egypt and the Middle East. They were introduced into former British colonies and are now firmly established in New Zealand, Tasmania, south-east Australia and British Columbia. The Skylark is one of the most widely distributed breeding birds in the UK, being present in 98% of all 10 km squares surveyed for the Breeding Bird Atlas in 1988-9. The resident population is joined in winter by a significant proportion of the European population, possibly up to 25 million individuals.

Almost all countries of northern and western Europe report recent declines. There have also been serious declines in the UK with a loss of 52% between 1970 and 1998. The most recent population estimate (1997) indicates that there are about 1 million breeding pairs. The Skylark occurs on the RSPB Red List of '*Birds of Conservation Concern*' and on the UK Biodiversity Steering Group (UKBSG) '*Short List of Globally Threatened/Declining Species*'.

Within Hull, recent records indicate that three pairs were breeding off Priory Road in 1996 and several on the former sidings at Priory Park East in 1998. A Skylark was recorded singing over Anlaby Common in 1999 and another over Victoria Dock in 2000. There are still about 12 pairs breeding at North Bransholme and a winter flock of 65 was observed there in December 1999. This is thought to be the largest breeding concentration within the Hull boundary.

CURRENT FACTORS AFFECTING SKYLARKS

- § The most obvious decline has been on lowland farmland and can be attributed to changing farming practices, including reduction in crop diversity, loss of winter stubble and increased use of herbicides and insecticides. Autumn sown cereals may make an unsuitable nesting habitat compared with spring-sown varieties. Tall, fertilised grass is unsuitable for nesting and early silage cutting destroys nests and exposes Skylarks to predators.
- § The causes of decline are poorly understood because population trends in habitats other than farmland are largely unknown.

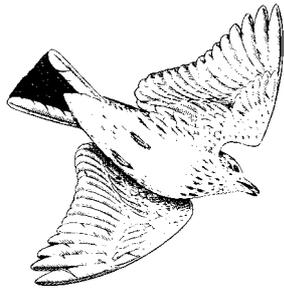
SPECIES ACTION PLAN

CURRENT ACTION

Legal Status

The Skylark is protected under the Wildlife and Countryside Act (1981). It is illegal intentionally to kill, injure or take any wild bird, intentionally to take, damage or destroy the nest of any wild bird while it is in use or being built or intentionally take or destroy the egg of any wild bird. The Skylark also receives protection under the EC Birds Directive (1979).

Management, Research and Guidance



The UKBSG has produced a Species Action Plan for the Skylark. The plan aims to maintain present breeding numbers, wintering numbers and distribution throughout the UK. It also aims to reverse the population decline on lowland farmland and other habitats where it is found to be declining. The plan highlights the need to protect the Skylark's habitat, particularly during the breeding season.

The RSPB has recently purchased a 180-hectare farm in Cambridgeshire, which will be used to investigate and develop new wildlife-friendly farming methods to benefit bird species such as the Skylark.

Within Hull, local groups and individuals record sightings of Skylarks and other birds. These records are important to identify changes in population numbers and distribution.

ACTION PLAN AIMS

1. To monitor breeding and wintering numbers and distribution of Skylarks in Hull.
2. To manage grasslands as hay meadow to provide habitat and feeding grounds for the Skylark.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection To manage grasslands as meadow to provide habitat and feeding grounds for the Skylark.	Ongoing: Manage Priory Meadows, Snuff Mill Fields and other species-rich grassland throughout the city as hay meadows.	KuHCC (Parks and Open Spaces, Planning)	2
Advisory No advisory action proposed.			
Future Research and Monitoring Monitor breeding numbers, wintering numbers and distribution throughout Hull.	Ongoing: Continue monitoring and recording	HVWG, EYB	1

SPECIES ACTION PLAN

	birds within Hull.		
Communications and Publicity No communications or publicity proposed.			

WHAT WE CAN ALL DO

- § Let the Biodiversity Partnership know if you see Skylarks in Hull.
- § Be aware of the need for areas of uncut grass to encourage and protect wildlife.

LINKS WITH OTHER ACTION PLANS

Habitat management will be very important for this bird and the Species Action Plan should be considered along with those for **Trees, Scrub and Hedgerows, Grassland and Parks, Golf Courses and Cemeteries**. It is likely that the implementation of this plan will also benefit other birds such as the **Reed Bunting, Tree Sparrow, Song Thrush and Linnet**.

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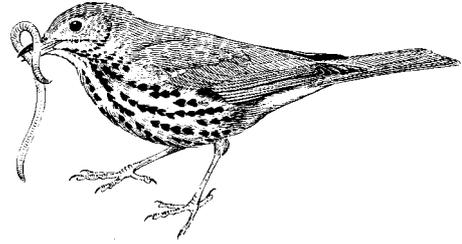
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SPECIES ACTION PLAN

Song Thrush *Turdus philomelos*

The Song Thrush is slightly smaller than the closely related and more common Blackbird. They have medium brown upper parts, while the underside is cream and boldly spotted with brown-black. Song Thrushes can exist almost anywhere with trees or bushes and open grassland. They have adapted well to many of the changes in the environment created by humans. They make good use of small woodlands, parklands, hedgerows, railway embankments, roadsides, cemeteries, gardens and built-up areas.



Song Thrushes spend much of their time on the ground, especially short grass or bare soil, looking for food. They eat a wide variety of invertebrate and plant food, making use of whatever is seasonally abundant, although Earthworms are a key food. Snails become particularly important in late summer, when the dry, hard ground makes worms inaccessible. The birds beat Snails against a hard surface such as a stone (the 'anvil') until the shell breaks. This habit is unique to Song Thrushes. During the autumn and winter, fruit and berries are an important part of the diet.

Song Thrushes have a very clear and musical song with great variety and mimicry, most phrases being repeated several times. The song is often delivered from a conspicuous perch. Breeding territories are established in the late winter or early spring. The breeding season lasts from March to August. The mud-lined cupped nest is built low down in any suitable cover, including trees and shrubs, among creepers on walls, ledges, and even on the ground amongst thick vegetation. They lay between three to five pale-blue eggs with black spots.

CURRENT STATUS

This is a common and widespread bird that is declining throughout the UK. Most Song Thrushes in the British Isles are resident and remain in the same area throughout the year. Others breed in the UK but winter further south in Europe. Large numbers of Continental breeders, especially Dutch birds, overwinter in the UK. The Song Thrush suffered an overall decline of 59% between 1970 and 1998. It is estimated that numbers have reduced by 73% on farmland and 49% in woodland habitats. The most recent population estimate (1988-91) is 1.1 million. The Song Thrush appears on the UK Biodiversity Steering Group 'Short List of Globally Threatened/Declining Species'. It is also listed on the RSPB Red List of 'Birds of Conservation Concern'.

Despite the national decline suffered by Song Thrushes in the past 30 years, they are still fairly common within Hull. Up to five pairs were breeding throughout the 1990's between North Bransholme and Holderness Drain and a pair or two were nesting along Snuff Mill Lane and Wood Lane, between Cottingham and Hull in 1996. Recently Song Thrushes have been observed breeding in the Trinity burial ground, right in the centre of the City. Three or four males were recorded singing along the old Hull to Withernsea railway line between Hedon Road Cemetery and the City centre in 1999 and 2000. Several pairs are known to breed in the Sutton Fields area. Most of the larger gardens, parks and cemeteries will have a pair or two of Song Thrushes. However, many areas have reported serious declines over the past 10 years. Song Thrushes were once common in the Avenues area of Hull but were less frequent by 1996. Song Thrushes are most common in the Hull area as passage migrants in autumn, when substantial numbers fly from Scandinavia with Redwings, Fieldfares and Blackbirds.

CURRENT FACTORS AFFECTING SONG THRUSHES

- š Intensive farming methods affect food supply and the availability of nest sites for the Song Thrush. Loss of hedgerows and wet ditches has removed feeding and nesting sites, while increased land drainage, agricultural operations and pesticide usage are all likely to have reduced the numbers of

SPECIES ACTION PLAN

earthworms and other invertebrate prey available to this bird. The switch from spring to autumn sowing of cereals may also have adversely affected the Song Thrush.

- § Severe winter weather and dry soil conditions may affect food supply.
- § Song Thrushes are caught and eaten by other birds such as Sparrowhawks. In urban areas many are victims of cats.
- § Gardens and allotments are important habitats for the Song Thrush. The use of chemicals, such as slug pellets, makes the slugs and snails they eat toxic.

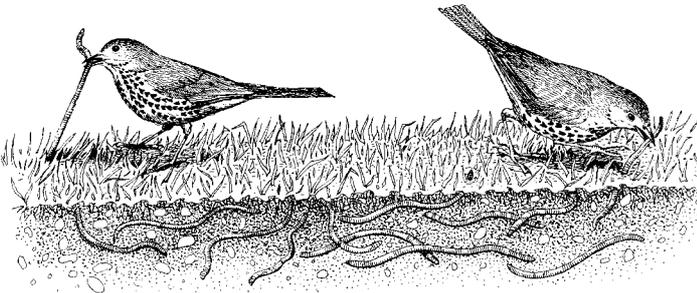
CURRENT ACTION

Legal Status

The Song Thrush is protected under the EC Birds Directive. Song Thrushes and their nests are also fully protected under the Wildlife and Countryside Act (1981). It is an offence intentionally to kill, injure or take any wild bird. It is also an offence intentionally to take, damage or destroy the eggs, young or nest of a Song Thrush while it is being built or in use. It is therefore essential to ensure that nests are not destroyed by inappropriate hedge trimming or tree felling during the breeding season.

Management, Research and Guidance

The UK Biodiversity Steering Group has prepared a national Song Thrush Species Action Plan. The plan sought to halt the decline in Song Thrush numbers by the year 2000 and highlights the fact that the recovery of the species is largely dependent on research identifying appropriate remedial measures.



Little action was taken for the Song Thrush until census work by the British Trust for Ornithology (BTO) highlighted its decline. Current work now includes surveys, research on the bird's ecology and investigation of the causes of the decline.

Within Hull, several individuals and groups keep records of sightings but there is currently no action for the Song Thrush.

ACTION PLAN AIMS

1. To determine the numbers and distribution of Song Thrush in Hull.
2. To monitor the numbers and distribution of Song Thrush.
3. To encourage householders, schools and other landowners to provide suitable habitat.
4. To encourage supplementary feeding in winter and spring.
5. To improve the understorey of woodlands.
6. To increase the amount of hedgerow in Hull.
7. To enhance existing hedgerows.
8. To improve hedgerow management.
9. To ensure that scrub is well-represented across Hull and within a range of habitats.

SPECIES ACTION PLAN

10. To promote the use of non-toxic methods of slug deterrence in gardens.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Ensure that scrub is well-represented across Hull and within a range of habitats.</p>	<p>Ongoing: Identify important scrub areas and carry out management to stop valuable scrub habitats turning to woodland.</p>	KuHCC (Parks and Open Spaces)	9
<p>Improve the understorey in woodlands.</p>	<p>Short Term: Plant native shrubs to improve understorey in woodlands.</p>	KuHCC (Parks and Open Spaces)	5
<p>Enhance existing hedgerows.</p>	<p>Medium Term: Fill gaps in existing hedgerows with native shrubs and trees.</p>	KuHCC (Grounds Maintenance)	6, 7
<p>Increase the amount of hedgerows in Hull.</p>	<p>Ongoing: Plant native hedgerows where appropriate.</p>	KuHCC (Parks and Open Spaces)	6
<p>Improve hedgerow management.</p>	<p>Ongoing: Manage hedges on a rotational basis so that each is cut only once every three years. Only cut one side each time.</p>	KuHCC (Grounds Maintenance)	8
<p>Advisory Encourage environmentally friendly gardening practices e.g. alternatives to pesticides, safe bird deterrents.</p>	<p>Short Term: Article in press. Medium term: Produce leaflets and poster.</p>	KuHCC (LA21, Planning)	3, 9
<p>Encourage supplementary feeding of garden birds, especially in winter and spring.</p>	<p>Short Term: Article in press.</p>	HVWG, EYB, RSPB	4
<p>Encourage householders, schools and other landowners to provide suitable habitat.</p>	<p>Medium Term: Provide advice on habitat creation.</p>	RSPB	3
<p>Future Research and Monitoring Determine the numbers and distribution of Song Thrush in Hull.</p>	<p>Short Term: Carry out a survey of Song Thrush</p>	HVWG, EYB	1

SPECIES ACTION PLAN

Monitor the numbers and distribution of Song Thrush in Hull.	Habitats. Short Term: Ask residents to provide details of Song Thrushes in their gardens. Ongoing: Carry out annual surveys to detect changes in the population.	HVWG, EYB	2
Communications and Publicity No communications or publicity proposed.			

WHAT WE CAN ALL DO

- § Song Thrushes spend time on the ground looking for food so are often caught and killed by cats. By putting a bell on your cat you can help alert birds to their presence.
- § Plant trees and shrubs, they will provide cover and nesting habitat. Species with fruit or berries also provide a good source of food.
- § Help determine the distribution of Song Thrushes in Hull by telling the Biodiversity Partnership where you have seen the bird.
- § Avoid use of chemicals such as slug pellets as they can be toxic to Song Thrushes and other animals which eat slugs.

LINKS WITH OTHER ACTION PLANS

The management of **Trees, Scrub and Hedgerows, Gardens and Allotments** and **Parks, Golf Courses and Cemeteries** will be important for the Song Thrush.

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Spotted Flycatcher *Muscicapa striata*

Spotted Flycatchers lack any striking features. They are grey-brown in colour with an off-white breast, streaked with darker grey and a streaked forehead. Young birds are very spotted with pale brown on the back and head. Spotted Flycatchers have a thin, squeaky song and call which is distinctive but not very noticeable. They are long-distance migrants; spending the winter in southern Africa and arriving back in the UK to breed in mid-May.

Spotted Flycatchers prefer natural habitats, particularly open woodland with large clearings and prominent perches. They readily adapt to parks, cemeteries and gardens, which provide similar feeding opportunities. When it is colder and the abundance of flying prey is low, they forage high in the tree canopy, hovering by the leaves and moving about in the very top of the trees. On warmer days they feed on flying insects which they catch by pursuit, especially Flies, Aphids, Beetles, Ants, Bees and Wasps. Spotted Flycatchers are rarely seen on the ground but will occasionally hop to pick up food.

Spotted Flycatchers build their nests on ledges or in a sheltered hole with a good view, often against a wall supported by creepers. The nest of twigs, moss and grass is usually lined with hair, wool and feathers. Spotted Flycatchers will also readily occupy open-fronted nest boxes or other artificial sites. One or two clutches of pale buff eggs with reddish brown blotches are produced. The young are fed by both parents, mainly on small flies. Poor weather can often cause them to starve to death as it can make insects very scarce.

CURRENT STATUS

The Spotted Flycatcher is a common and widespread summer visitor across mainland Europe, except northern Scandinavia and densely forested, arid or mountainous areas. Numbers are fluctuating in some countries, such as Sweden and The Netherlands and there is evidence of recent declines in others including Finland, Germany and Spain. The Spotted Flycatcher breeds throughout the UK, although it is scarcer in the far north and west and is almost absent from the Western and Northern Isles. The bird has been in decline since the early 1960s. The Common Bird Census (CBC) data show it suffered a 62% decline in woodland areas and a 70% decline on farmland between 1968 and 1991, though the range had reduced by only 6.6% in the same period. The UK population is estimated to be 130,000 breeding pairs.

The Spotted Flycatcher has been placed on the RSPB's Red List of *'Birds of Conservation Concern'*. The species also appears on the UK Biodiversity Steering Group (UKBSG) *'Middle List of Globally Threatened/Declining Species'*.

The Spotted Flycatcher was once a fairly common summer visitor to Hull but the decrease in the British population has affected the number of Spotted Flycatchers visiting the City. Recent breeding has been recorded in East Park and several of the cemeteries. One or two pairs have been recorded breeding in the grounds of Holderness House, and they also breed in the Newland Park area and the Avenues. It is likely that they breed elsewhere in gardens and other suitable habitats.

CURRENT FACTORS AFFECTING SPOTTED FLYCATCHERS

- § The weather appears to be important and could affect populations if long-term climate change occurs. The key factor appears to be summer weather conditions as more birds breed early if temperatures are higher. A study also found that clutch sizes are larger when there is more sunshine.
- § Drought in the Sahel region of Africa has been implicated in the decline of a number of trans-Saharan migrants. The Spotted Flycatcher passes through the Sahel region on its way to wintering grounds in southern Africa. Changes in conditions in the Sahel or the wintering areas could be a factor in the bird's decline but no clear link has been established.

SPECIES ACTION PLAN

- § There is growing evidence that changes in agricultural practices, which lead to low invertebrate availability in summer, may affect the range of birds found on lowland farmland.
- § Many Spotted Flycatchers nest in large trees and there has been a large-scale loss of these in woodland, parks and hedgerows (especially following Dutch Elm disease).

CURRENT ACTION

Legal Status

The Spotted Flycatcher is protected under the Wildlife and Countryside Act (1981). Under the Act it is illegal intentionally to kill, injure or take any wild bird, intentionally take, damage or destroy the nest of any wild bird while it is in use or being built or intentionally take or destroy the eggs of any wild bird. The Spotted Flycatcher also receives protection under the EC Birds Directive (1979).

Management, Research and Guidance

The UKBSG has produced a national Spotted Flycatcher Species Action Plan. The plan seeks to halt or reverse the decline in numbers of the bird by the year 2003 and see a sustained recovery in numbers by 2008.

Until recently the Spotted Flycatcher was not regarded as a species of conservation concern, therefore little direct conservation work has been carried out. However, some aspects of broad-leaved woodland management, particularly the creation and maintenance of clearings and wide rides, will have benefited the bird. Provision of nest-boxes for other species will also have helped Spotted Flycatchers, particularly in areas where natural nest sites have been lost in the past.

Several individuals/groups within Hull record sightings of Spotted Flycatchers, which are useful in monitoring its breeding numbers in the City.

ACTION PLAN AIMS

1. To monitor Spotted Flycatcher populations in Hull.
2. To improve links between woodland sites.
3. To increase the tree cover in Hull.
4. To encourage provision of Spotted Flycatcher bird boxes.
5. To encourage environmentally friendly gardening practices.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection To increase the tree cover in Hull.	Ongoing: Planting of native trees to increase the tree cover.	KuHCC (Parks and Open Spaces)	3

SPECIES ACTION PLAN

Improve links between woodland sites.	Ongoing: Plan plantings to create links across the City.	KuHCC (Parks and Open Spaces, Planning)	2
Encourage the provision of bird boxes.	Short Term: Erect Spotted Flycatcher boxes in cemeteries. Ongoing: Extend the network of Spotted Flycatcher boxes in appropriate habitats throughout the City.	KuHCC (Parks and Open Spaces), EA, HVWG	4
Advisory			
Provide advice on construction of bird boxes suitable for Spotted Flycatchers.	Ongoing: Provide advice on construction of bird boxes suitable for Spotted Flycatchers.	RSPB, BTO	4
Encourage environmentally friendly gardening e.g. alternatives to pesticides.	Short Term: Article in press. Medium Term: Produce leaflets and posters.	KuHCC (LA21, Planning)	5
Future Research and Monitoring			
To monitor Spotted Flycatcher populations in Hull.	Ongoing: Annual monitoring of breeding sites to identify population changes.	HVWG, EYB	1
Communications and Publicity			
No communication or publicity proposed.			

WHAT WE CAN ALL DO

- § Put up a Spotted Flycatcher bird box. Details of nest box designs for various bird species are available from the RSPB or BTO.
- § Let the Hull Biodiversity Partnership know if you see Spotted Flycatchers in Hull.
- § Avoid using chemical pesticides as Spotted Flycatchers are entirely dependent on insects for food.

LINKS WITH OTHER ACTION PLANS

This action plan should be considered along with those for **Trees, Scrub and Hedgerows, Gardens and Allotments and Parks, Cemeteries and Golf Courses.**

SPECIES ACTION PLAN

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SPECIES ACTION PLAN

Tree Sparrow *Passer montanus*

Tree Sparrows are similar to the more widely recognised House Sparrows but are smaller and more active. They have a chestnut brown head, white cheeks and a contrasting black cheek-spot. They also have a black bib and an unmarked pale grey underside. Their back is dull brown, the wings dull chestnut brown with two white wing bars and the rump is yellowish with a square-tipped tail. The male and female of this species are identical. The Tree Sparrow's call consists of varied chirps and cheeps generally similar to the House Sparrow but shorter and higher pitched.

Tree Sparrows are birds of lowland farmland but will also inhabit large gardens, especially where nest boxes are provided. They prefer mature trees in open country, on the edge of woods or in hedges. Tree Sparrows usually nest in holes (including nest boxes) but may build a nest in thick, large Hawthorn hedges if no holes are available. They form mixed flocks with other farmland species during the autumn and winter, moving around to make best use of available food resources. They feed mainly on the seeds of grasses, cultivated cereals and arable weeds such as nettles, knotgrass, buttercup, poppy and chickweed. The breeding season lasts from mid April to early August and two or three clutches, containing between two and seven eggs are produced. The chicks are fed almost entirely on insects such as aphids, beetles and grasshoppers.

CURRENT STATUS

Tree Sparrows are patchily distributed on farmland across Britain and Ireland. They are more scarce in the uplands and the far north and west. The main populations are now found across the Midlands, southern and eastern England. They are almost absent from the south west, Wales and the north west. The Tree Sparrow is still common and widespread across mainland Europe.

This once common farmland bird has suffered a serious decline in breeding numbers over the last 25 years. The Common Bird Census (CBC) indicates a decline of 95% in numbers in Britain between 1970 and 1998. This is the largest decline of any common species during this period. The Tree Sparrow also decreased in range by 20% over the same period. The most recent population estimate (1988-91) suggests that there are about 110,000 breeding pairs. Their numbers are known to fluctuate unexpectedly (apparently unrelated to climate or weather effects) but the steady decline over the last 50 years coincides with agricultural intensification and specialisation. The Tree Sparrow is on the RSPB Red List of '*Birds of Conservation Concern*' and also appears on the UK Biodiversity Steering Group (UKBSG) '*Middle List of Globally Threatened/Declining Species*'.

Records show that Tree Sparrows were once very common within Hull but the national decline became evident in the area by the 1980's. Since 1995 the only Tree Sparrows known to be breeding in Hull were all west of the River Hull. About 15 pairs used to breed in the fields around Priory Road just outside the city boundary, but owned by Hull City Council and managed under Countryside Stewardship. However, this area has not held Tree Sparrows since 2000. Wintering flocks were also recorded in the same area, in addition to flocks at North Bransholme, Sutton and Bransholme Sewage Works.

CURRENT FACTORS AFFECTING TREE SPARROWS

- § Little is known about the factors affecting numbers of Tree Sparrows, but their recent decline has occurred at the same time as decreases in the numbers and/or ranges of other farmland seed-eating birds. It is therefore likely that their decline is due to changing agricultural practices. These changes include the increased use of pesticides and herbicides, which has reduced the availability of insects. The change from spring-sown to autumn-sown crops has severely reduced the areas of winter stubble feeding grounds. The more intensive management of grassland and the general reduction in habitat diversity on farmland due to loss of mixed farming and increased specialisation may also have affected Tree Sparrows.

SPECIES ACTION PLAN

- § Removal of hedgerows on farmland and lack of management of existing hedgerows has reduced the availability of nesting habitat for Tree Sparrows.
- § The loss of Elm trees in the late 1970s and 1980s, due to Dutch Elm disease reduced the availability of nest holes.
- § Habitat loss due to urban development may be particularly important in the decline of Tree Sparrows within Hull.

CURRENT ACTION

Legal Status

The Tree Sparrow is protected under the Wildlife and Countryside Act (1981). It is illegal intentionally to kill, injure or take any wild bird, intentionally take, damage or destroy the nest of any wild bird while it is in use or being built or intentionally take or destroy the egg of any wild bird. The Tree Sparrow also receives protection under the EC Birds Directive (1979).

Management, Research and Guidance

The UKBSG has produced a national Species Action Plan for the Tree Sparrow. The plan aims to reverse the decline in numbers of the Tree Sparrow by the year 2003, then see a sustained recovery so that numbers are 50% higher than 1996 and a measurable increase in range is achieved by 2008.

Nationally little direct conservation work for the Tree Sparrow has been carried out although nest box schemes have been implemented in a number of areas. The RSPB has recently purchased a 180-hectare farm in Cambridgeshire, which will be used to investigate and develop new wildlife-friendly farming methods to benefit bird species such as the Tree Sparrow.

There is currently no management specifically for Tree Sparrows within Hull, although they could potentially benefit from the Country Stewardship Scheme at Priory Meadows and Snuff Mill Fields. Several individuals and groups within Hull record sightings of birds and these are important for identifying changes in Tree Sparrow numbers and distribution.

ACTION PLAN AIMS

1. To identify Tree Sparrow breeding colonies.
2. To monitor Tree Sparrow breeding colonies to detect any threats or population changes.
3. To increase the length of hedgerow within Hull.
4. To enhance existing hedgerows.
5. To improve hedgerow management.
6. To improve links between woodland sites.
7. To increase the tree cover in Hull.
8. To encourage provision of bird boxes and supplementary feeding.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation No policy or legislation proposed.</p>			
<p>Habitat Management and Protection Plant hedges in suitable habitats.</p> <p>Enhance existing hedgerows.</p> <p>Improve hedgerow management</p> <p>To increase the tree cover in Hull.</p> <p>Improve links between woodland sites.</p> <p>Encourage the provision of bird boxes.</p>	<p>Ongoing: Planting of hedgerows around parks, golf courses and cemeteries where appropriate.</p> <p>Ongoing: Fill gaps in existing hedgerows with native trees and shrubs.</p> <p>Ongoing: Manage hedges on a rotational basis so that each is cut only once every 3 years. Only cut one side each time.</p> <p>Ongoing: Planting of native trees to increase the tree cover.</p> <p>Ongoing: Plan plantings to create links across the City.</p> <p>Ongoing: Extend the network of Tree Sparrow boxes in appropriate habitats throughout the City.</p>	<p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Grounds Maintenance)</p> <p>KuHCC (Grounds Maintenance)</p> <p>KuHCC (Parks and Open Spaces)</p> <p>KuHCC (Planning, Parks and Open Spaces)</p> <p>KuHCC (Parks and Open Spaces), EA, HVWG</p>	<p>3</p> <p>3, 4</p> <p>4, 5</p> <p>7</p> <p>6</p> <p>8</p>
<p>Advisory No advisory action proposed.</p>			
<p>Future Research and Monitoring Identify Tree Sparrow nesting colonies.</p> <p>Monitor Tree Sparrow nesting colonies.</p>	<p>Short Term: Identify Tree Sparrow nesting colonies.</p> <p>Ongoing: Annual monitoring of Tree Sparrow nesting colonies.</p>	<p>HVWG, EYBC</p> <p>HVWG, EYBC</p>	<p>1</p> <p>2</p>

SPECIES ACTION PLAN

Communications and Publicity

No communications or publicity proposed.

WHAT WE CAN ALL DO

- § Let the Hull Biodiversity Partnership know if you see Tree Sparrows in Hull.
- § Put up a Tree Sparrow box.
- § Encourage the planting of new hedges around school fields and amenity areas.
- § Feed garden birds, especially in winter and spring.

LINKS WITH OTHER ACTION PLANS

Habitat management will be very important for this bird and this plan should be considered in along with those for **Trees, Scrub and Hedgerows, Grassland, and Parks, Golf Courses and Cemeteries**. It is likely that the implementation of this plan will also benefit other birds such as the **Reed Bunting, Skylark, Song Thrush and Linnet**.

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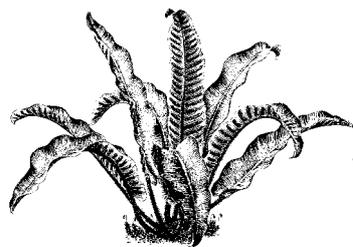
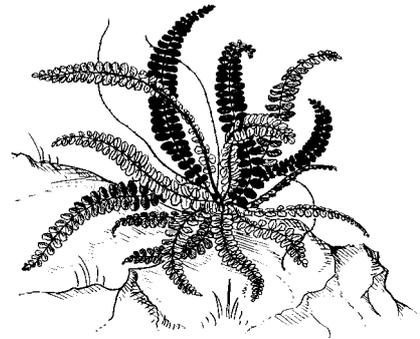
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Wall Ferns

Walls provide a variety of habitats in which ferns can grow, including crevices and joints between the stones, on the wall tops where small amounts of soil build up and also on the stones themselves. Several native ferns of the Spleenwort (*Asplenium*) family are found growing on walls within Hull. Species recorded in Hull include Wall-rue (*Asplenium ruta-muraria*), Maidenhair Spleenwort (*Asplenium trichomanes*) and Black Spleenwort (*Asplenium adiantum-nigrum*).

Wall-rue shows a distinct preference for limestone when growing on natural rock and it finds similar conditions in the mortar of walls, where it is more commonly found. It is the typical pioneer species of wall vegetation over most of Europe. Many young plants are often found where mortar has broken away to form small ledges and crevices. Maidenhair Spleenwort usually grows on mortared walls and in rock crevices, preferring surfaces that face south-west. This species is not confined to any particular kind of rock though it is often abundant on limestone. Black Spleenwort grows most commonly on hedge banks and is generally uncommon on mortared walls.



Hart's-tongue (*Phyllitis scolopendrium*) and Rustyback (*Ceterach officinarum*) are also found within the City. The usual habitat of Hart's-tongue is hedge banks, but it is commonly found on old walls, on rocks or sometimes in woods. This fern shows a distinct preference for limestone and lime-rich soils. Rustyback is naturally a plant of crevices in limestone but such conditions are simulated in mortared walls and it is on walls that this fern is most frequently found. This fern is sensitive to extremes of temperature and drought so during dry weather the leaves curl up and remain in this state until rewetted.

CURRENT STATUS

Wall-rue

The Wall-rue is common over the greater part of the British Isles and grows at altitudes from sea level to 1000m. It is perhaps more common in some western and northern districts than in eastern England, partly because of the higher rainfall in the west, but primarily because there are more old stone walls in western districts than in the east. Wall-rue is not directly threatened but is sensitive to atmospheric pollution and scarcer around industrial areas. Wall-rue is infrequent in Hull and is only found on old walls.

Maidenhair Spleenwort

Maidenhair Spleenwort is distributed throughout the British Isles and is known to occur in every county, growing from sea level up to about 800m. It is most abundant in the wetter western and northern parts of the British Isles and is scattered in the east. It is perhaps the most common of the small fern species found on walls and in rock crevices. Maidenhair Spleenwort occurs on walls within the Hull. Although generally rather uncommon it can be seen in profusion on walls in Wensley and Aysgarth Avenues.

Black Spleenwort

Black Spleenwort is one of the commoner ferns in Britain, occurring over the most of the country and is locally abundant in the west. It is absent from some areas in Central and Highland Scotland and the colder rain-shadow east of the Pennines. In areas of low rainfall it is only found on walls exposed to prevailing winds and rarely occurs above 600m. Black Spleenwort is uncommon in Hull, although it does occur in quantity on a garden wall to the north-west of the city centre. Interestingly, this is in the same street as the only occurrence of Rustyback, although not on the same wall.

SPECIES ACTION PLAN

Hart's-tongue

In Britain, Hart's-tongue is very widespread and extremely abundant in many parts of the country, especially in the west. This is one of the more widely distributed ferns within Hull. Small plants may be found growing on shady walls in many localities scattered throughout the Hull area.

Rustyback

Rustyback is widespread in Britain, but only abundant in areas of high rainfall and therefore shows a strongly western distribution. It is most common in lowland areas to about 200m, although occasionally found at higher altitudes. It is common in SW England and Wales and the Lake District. It is scattered in the Pennines and SW Scotland but very rare north of the Grampian Highlands and east of the Pennines in England. This fern is not threatened in its native habitats but is vulnerable to rebuilding of man-made walls and buildings at the edge of its range. Rustyback had been thought to be extinct in south-east Yorkshire until a small colony was recently found on a garden wall to the north west of Hull city centre. The colony currently contains about 10 small plants distributed on either side of a low wall.

CURRENT FACTORS AFFECTING WALL FERNS

- § Many of these fern species are not under threat in their natural habitats but are being lost within urban areas. Many old buildings or walls that support these plants are lost due to redevelopment and others are re-pointed to make them look 'tidy'.
- § People often remove ferns and other plants from walls because they are thought to cause damage. The damage that plants can cause to walls is poorly researched. Woody species, if allowed to grow to any size, can force blocks apart so the removal of trees and shrubs is sensible. Some long-lived perennials may slightly disrupt stonework if growing over a long period of time. However, small herbaceous species with soft stems, such as ferns and a range of other wall flowers cannot break down walls. All are picturesque species that should be left to decorate walls, provide local character and soften these otherwise hard landscape features.
- § Air pollution in urban areas, particularly areas supporting heavy industry, may limit the growth of wall ferns.

CURRENT ACTION

Legal Status

All wild plants are given limited protection under UK law. Under the Wildlife and Countryside Act (1981) it is illegal to uproot any wild plant without permission from the land-owner or occupier. The Countryside and Rights of Way Act (2000) has increased the penalties for offences against plants so that they are sufficiently high to act as a deterrent.

Wall ferns often appear on old buildings, many of which will be 'Listed Buildings' and therefore require special consent before demolition.

Management, Research and Guidance

Over the period of 1998 to 2000 the members of the Hull Natural History Society undertook a project to map the distribution of plants within the Hull area. Distribution maps have been produced for most of the plants found in Hull including ferns.

ACTION PLAN AIMS

1. To undertake a survey to determine the botanical interest of the walls within the City.

SPECIES ACTION PLAN

2. To encourage people to consider the vegetation on walls as an asset, having conservation and amenity value.
3. To encourage those responsible for wall maintenance to restrict spraying and weeding to those species likely to harm masonry or obscure important details.
4. To ensure re-pointing work is carried out around desirable wall plants.
5. To ensure liaison with KuHCC Development Control and Building Conservation Officer to ensure protection of fern habitat and explore the possibility of habitat development.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection Ensure protection of buildings with unusual wall plants.	Ongoing: Ensure KuHCC Building Conservation Officer is aware of the presence of unusual wall plants.	KuHCC (Planning), HNHS	5
Advisory Encourage those responsible for wall maintenance to restrict spraying and weeding to those species likely to harm masonry or obscure important details. If re-pointing work is required it should avoid areas with desirable plants.	Medium Term: Produce guidance notes on maintaining walls with wall ferns and other plants.		3, 4
Future Research and Monitoring Undertake a survey to establish the botanical interest of the walls within the City.	Short Term: Undertake a survey to establish the botanical interest of the walls within the City.	HNHS	1
Communications and Publicity Encourage people to consider the vegetation on walls as an asset, having conservation and amenity value e.g. article in local press.	Short Term: Article to highlight the wall ferns found in Hull.		2

SPECIES ACTION PLAN

WHAT WE CAN ALL DO

- š Don't remove ferns or other non-woody plants from walls.
- š Let the Hull Biodiversity Partnership know if you have ferns growing near you.

LINKS WITH OTHER ACTION PLANS

Management of **The Built Environment** and **Industrial Land** will affect Wall Ferns. **Lichens** are often found in similar habitats and may benefit from management for wall ferns.

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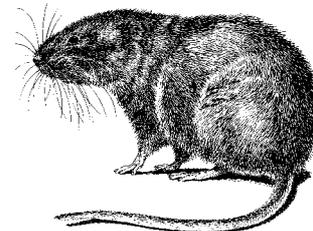
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SPECIES ACTION PLAN

Water Vole *Arvicola terrestris*

The Water Vole is the largest British vole. They are rat-sized with a blunt-nose, chestnut brown fur, short rounded ears and a long hair-covered tail. They inhabit densely vegetated banks of ditches, dykes, rivers and streams, generally where the current is slow and water is present throughout the year. Water Voles dig extensive burrow systems into the banks of waterways with entrances both above and below the water.



Water Voles are predominantly vegetarian and grasses are their main food, in particular Common Reed, sedges, and rushes. They also eat marginal wetland plants such as Meadowsweet and Nettles. In winter they feed on roots and rhizomes and on the bulbs of plants as well as hay they collected in autumn and kept on the floors of their burrow system. They also strip bark off woody plants, particularly Willow, but also Hawthorn, Elder and Poplar.

CURRENT STATUS

Water Voles are found throughout Britain but are confined mainly to lowland areas near water. Once common and widespread, this species suffered a significant decline in numbers and distribution throughout the 20th Century. Two surveys carried out by the Vincent Wildlife Trust in 1989-1990 and 1996-1998 have shown that this decline has now developed into a serious population crash. The first survey showed that from 15% to 74 % of the riverside sites examined were occupied. However, the second survey showed that in the intervening seven years the numbers of voles had dramatically fallen. This population loss has been most severe in the north and south-west of England, reaching over 97% of the population in Yorkshire.

Water Voles used to be commonly seen on Holderness Drain, Foredyke Stream and Old Main Drain at North Bransholme. A survey of North Carr in 2001 failed to find any signs of Water Voles. Recent surveys have determined that Water Voles still occur in waterways in Hull, however more research is required to determine locations and numbers.

CURRENT FACTORS AFFECTING WATER VOLES

- § Loss and fragmentation of habitats is thought to be one of the major causes of decline. Through the UK and especially in the intensively farmed lowlands, the straightening, piping and clearing of waterways has led to a massive and ongoing decline in the waterside habitats that Water Voles depend on. Not only has the total area of their habitat decreased but it is also becoming more restricted. As the lower reaches of rivers become unsuitable for habitation, the distribution of Water Voles becomes discontinuous and existing sites become isolated and vulnerable.
- § Water Voles can tolerate high levels of disturbance but if disturbance is prolonged then pressure is often too great causing voles to abandon sites. Frequent mowing of riverbanks, recreation such as angling and alterations for flood defence schemes cause disturbance.
- § Pollution of watercourses may also cause Water Voles to abandon sites. The survey of North Carr noted evidence of chemical pollution and rubbish, including shopping trolleys, oilcans and polystyrene. Water Voles may be poisoned when vermin control is undertaken beside watercourses.
- § The replacement of floodplains with efficiently drained, tilled land leads to changed patterns of water flow and flooding. It also reduces the availability of refuges for Water Voles when severe floods occur. Periods of low rainfall combined with crop irrigation have led to low river flows and the drying up of smaller streams, ponds and ditches. This can leave voles unable to escape predators or patrol their territories. Drying out of the riverbank and therefore a reduction in the voles' food supply may also occur.

SPECIES ACTION PLAN

- § The Water Vole suffers predation by a number of native British animals, including Foxes, Otters, Stoats, Weasels, Owls, Herons, raptors and large fish. None of these animals depends specifically on Water Voles for its survival. Typically the Water Vole constitutes around 5% of the diet of these predators although this varies with vole abundance. Rats have been reported to predate young Water Voles, causing local extinction or displacement. Domestic cats and dogs have also given cause for concern. However, the American Mink (*Mustela vison*), a relative newcomer to the British countryside, has been more severely implicated in the recent dramatic decline of the Water Vole. This semi-aquatic member of the weasel family is very efficient at finding voles, following them in the water or even down their burrows, and eating them. The narrow, linear waterways left for the voles to live in are particularly easy to search and in many river systems voles have been completely eliminated. A recent survey of North Carr, Bransholme, identified habitats along the Wawne drain system which appeared to be ideal for Water Voles, both with respect to physical habitat and food plants but no signs of Water Voles were found. The presence of Brown Rat and American Mink were noted which might be the reason why there are no Water Voles.

CURRENT ACTION

Legal Status

The sudden decline in the numbers of Water Voles has led to this species being protected under Schedule 5, of the Wildlife and Countryside Act (Revised 1998). This legislation prevents intentional activities that damage, destroy, or obstruct access to any structure or place which they use for shelter or protection. It also prevents the intentional disturbance of Water Voles whilst in occupation of these places. This legislation does not protect the Water Voles themselves.

This legal protection requires that due attention is paid to the presence of the species during development or maintenance works in areas used by Water Voles and that appropriate actions are taken to safeguard the places used for shelter or protection.

Planning Policy Guidance on Nature Conservation (PPG 9) covers Water Voles and other protected species. The planning authorities should take appropriate action to check for the presence of such species and ensure they are protected through the planning process.

Management, Research and Guidance

Nationally, action is being co-ordinated by the UK Water Vole Steering Group. The Water Vole has been declared a priority species and the UK Biodiversity Steering Group produced a national Species Action Plan in 1997. The action plan aims to maintain the current distribution and abundance of the species in the UK. It also sets a target for ensuring that Water Voles are present throughout their 1970s range by the year 2010. In addition, consideration is to be given to habitat management and possible translocation of populations to areas from where they have been lost.

The Environment Agency is the lead partner for the Water Voles under the UK Species Action Plan.

The Vincent Wildlife Trust carried out national surveys in 1989-90 and in 1997-98. There is ongoing research by the Environment Agency and the Wildlife Conservation Research Unit (WildCRU) into Water Vole ecology. The Water Vole is one of the focal species of the Wildlife Trusts.

The Yorkshire Wildlife Trust employs a Water Vole Conservation Officer for the East Yorkshire area to help safeguard the remaining Water Voles.

ACTION PLAN AIMS

1. To identify remaining Water Vole populations in Hull.
2. To protect Water Vole habitat from further damage.

SPECIES ACTION PLAN

3. To increase the number of Water Voles in Hull.
4. To provide advice on Water Voles and waterway management.
5. To encourage expansion of habitat through improvement of the wetlands and waterways.
6. To monitor the population of American Mink in Hull.
7. To remove rubbish from habitats used by Water Voles.
8. To increase awareness of the conservation of Water Voles and use them as a flagship species for promotion of good riverside and wetland management.

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
<p>Policy and Legislation</p> <p>Ensure Water Voles are protected through the planning process.</p>	<p>Ongoing: Require Water Vole surveys to be carried out before any development or flood defence schemes.</p>	EA, KuHCC (Planning)	2
<p>Habitat Management and Protection</p> <p>Ensure development schemes do not affect Water Vole habitat or populations and ensure appropriate management is built into new development schemes.</p>	<p>Ongoing: All developments that may affect Water Vole habitat should be carefully considered and appropriate mitigation required.</p>	EN, KuHCC (Planning, Design Agency)	2, 5
<p>Mink control</p>	<p>Short Term: Carry out research into effect of Mink on Water Voles in Hull.</p> <p>Medium Term: Possible Mink control if research finds the species to be a limiting factor on Water Vole populations.</p>	YWT (Water Vole Project)	6
<p>Remove rubbish from River and Drains.</p>	<p>Short Term: Remove rubbish from ditches and drains at North Carr.</p>	BGEEP, KuHCC (Area Committee)	7
<p>Ensure no Water Voles are destroyed or disturbed as part of pest control programme.</p>	<p>Ongoing: Do not use rat poison in areas where Water Voles are found.</p>	KuHCC (Environmental Health), EA	3

SPECIES ACTION PLAN

<p>Advisory</p> <p>Provide advice on Water Voles.</p> <p>Ensure that developers are made aware of the presence of Water Voles.</p>	<p>Ongoing: Ensure all relevant individuals, organisations (e.g. community groups) and bodies (e.g. local authority) receive adequate information, advice and help about Water Voles and their conservation.</p> <p>Ongoing: Ensure that developers are aware of the presence of Water Voles when responding to planning enquiries.</p>	<p>EA, YWT</p> <p>KuHCC (Planning), NEYEDC</p>	<p>4</p> <p>2</p>
<p>Future Research and Monitoring</p> <p>Determine Water Vole distribution.</p> <p>Carry out research into ecology.</p> <p>Determine the effects of American Mink on local Water Vole populations.</p>	<p>Short Term: Survey all drains and associated waterbodies.</p> <p>Short Term: Establish links with students at University of Hull/Bishop Burton College to carry out research on ecology.</p> <p>Short Term: Determine numbers of Mink in Hull's waterways.</p>	<p>YWT, EA</p> <p>YWT (WVP), University of Hull</p> <p>YWT (WVP), EA</p>	<p>1</p> <p>1</p> <p>1, 3, 6</p>
<p>Communications and Publicity</p> <p>Use Water Vole as a flagship species for promotion of good riverside and wetland management.</p> <p>Involve public in conservation of the Water Vole.</p>	<p>Ongoing: Use presence of Water Vole as an indicator of good management.</p> <p>Short Term: Press article to involve local community.</p>	<p>EA, YWT</p> <p>YWT</p>	<p>8</p> <p>8</p>

WHAT WE CAN ALL DO

- § Send for the Yorkshire Wildlife Trust Water Vole information leaflet.
- § Contact the Hull Biodiversity Partnership or the Yorkshire Wildlife Trust Water Vole Project Officer if you see a Water Vole in Hull.
- § Contact the Police Wildlife Liaison Officer if you see people trying to harm Water Voles.
- § Be aware of the need to dispose of your rubbish carefully as clean waterways are essential for this threatened animal's survival.

SPECIES ACTION PLAN

LINKS WITH OTHER ACTION PLANS

Management of **Fresh Water Habitats** will be important to the conservation of Water Voles as their survival is linked to protection of their habitat. Actions for Water Voles may be beneficial to other species such as the **Reed Bunting**.

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SPECIES ACTION PLAN

Yellow-wort *Blackstonia perfoliata*



Yellow-wort is a native plant found in dry grasslands on shallow chalk and limestone soils. This plant will not grow on shaded sites. It is a perennial and flowers from June to October. The stem and leaves are bluish-green and are hairless. The oval leaves are stalkless and form a loose rosette at the base of the stem. The leaves on the stem are in pairs with their bases fused together, making it appear as if the stem passes through the middle of a single leaf. Yellow-wort grows to between 15 and 45 cm high.

The petals are yellow and there can be between six and eight on each flower. They are joined at the base into a short tube. The Yellow-wort is a member of the gentian family and like other members of this family the flowers close up in the early afternoon.

CURRENT STATUS

Yellow-wort is distributed throughout most of southern Britain, extending as far north as north-west Yorkshire and Northumberland. This plant is thought to have expanded its range in recent years, especially in northern England, due to its inclusion in commercial wildflower mixtures on road verges and other landscaped sites.

The plant is quite abundant within Hull. It is found on bare and open sites, usually with an alkaline substrate. A recent survey carried out by the Hull Natural History Society (HNHS) found the plant to be much more common than had been expected. It was found to be the dominant species on bare sites in some parts of the city. This plant is thought to be increasing within the City.

CURRENT FACTORS AFFECTING YELLOW-WORT

- § Loss of habitat is the main factor affecting Yellow-wort in Hull. The plant occurs on a number of disused industrial sites, in particular old railway sidings. Many of these sites will be lost to development in the near future.

CURRENT ACTION

Legal Status

All wild plants are given limited protection under UK law. Under the Wildlife and Countryside Act (1981) it is illegal to uproot any wild plant without permission from the landowner or occupier. The Countryside and Rights of Way Act (2000) has increased the penalties for offences so that they are sufficiently high to act as a deterrent.

Management, Research and Guidance

Over the period of 1998 to 2000 members of the HNHS undertook a project to map the distribution of plants within the Hull area. Yellow-wort was included in this project and a distribution map for the species has been produced.

ACTION PLAN AIMS

1. To determine the current distribution of Yellow-wort within Hull.
2. To monitor known Yellow-wort sites within Hull.

SPECIES ACTION PLAN

WHAT WE ARE GOING TO DO

ACTION	TARGET	PARTNER	AIM
Policy and Legislation No policy or legislation proposed.			
Habitat Management and Protection No habitat or species management proposed.			
Advisory No advisory action proposed.			
Future Research and Monitoring To determine the current distribution of Yellow-wort in Hull. To monitor known Yellow-wort sites within Hull.	Short Term: To identify sites within Hull on which Yellow-wort occurs. Ongoing: Continued monitoring of Yellow-wort distribution within Hull.	HNHS HNHS	1 2
Communications and Publicity No communication or publicity proposed.			

WHAT WE CAN ALL DO

- § Let the Biodiversity Partnership know if you see Yellow-wort in Hull.
- § Be aware that uncut grassland on industrial sites can be ideal for rare plants and is better for wildlife than closely mown lawns.

LINKS WITH OTHER ACTION PLANS

Management of **Grassland** and **Industrial Land** will be very important for the Yellow-wort within Hull. Yellow-wort is found in similar habitats to **Bee Orchids** and management for both species will be similar.

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Appendix A

Legislation

§ UK Legislation

Wildlife and Countryside Act, 1981 (amended 1991)

This refers to the treatment and management of protected species listed as Schedule 1 (birds), 5 (mammals, reptiles, fish and invertebrates) and 8 (plants). The most relevant legislation is under Section 9. It is an offence intentionally to kill, injure, or take a scheduled species that is living wild at the time; to possess a scheduled species; to damage, destroy or obstruct access to the place of refuge used by the protected species.

Planning Policy Guidelines

The Planning and Policy Guidance Note (October 1994, Nature Conservation, DoE, PPG 9) make the presence of a protected species a material consideration when a local planning authority is considering a development proposal, which if carried out, would be likely to result in harm to the species or its habitat.

Conservation (Natural Habitats, etc.) Regulations, 1994

These Regulations enact the European Union's (EU) Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within the European member states by the conservation of sites containing habitats and species selected as being of EC importance. These sites will make up the Natura 2000 network. Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status. The Conservation (Natural Habitats, etc.) Regulations impose restrictions on planning permissions likely to affect Special Protection Areas (SPA) or Special Areas of Conservation (SAC). The Regulations also require the effects of existing authorisations and consents to be reviewed.

Countryside and Rights of Way (CROW) Act for England and Wales, 2000

The CROW Act amends the law relating to nature conservation and protection of wildlife, and makes a number of changes to the provisions of the Wildlife and Countryside Act to afford greater protection to SSSIs. It also makes new provision for public access to the countryside - the right to roam - in England and Wales. The CROW Act places a statutory duty on Government Departments and the National Assembly of Wales to have regard to biodiversity conservation and to promote conservation action by others. Section 74 of the Act requires the preparation and maintenance of lists of priority species and habitats. It also places a statutory duty on public bodies to conserve SSSIs and enhance their value, and provides English Nature and Countryside Council for Wales with the power to impose Management Schemes on owners of SSSIs. The CROW Act also strengthens the legal protection for threatened species with regard to killing, injuring, disturbing or destroying places used for shelter and protection.

§ International Legislation

The most important piece of legislation with regard to biodiversity is the Convention on Biological Diversity, an International Agreement that came out of the Earth Summit at Rio de Janeiro in 1992. To date the Convention on Biological Diversity has been ratified by 179 countries and the EU. It was signed by the UK on 3rd June 1994. Signatories are required to develop national strategies for the conservation and sustainable use of biological diversity, and to integrate biodiversity considerations into all activities. In addition to the Convention, the UK is party to many other international biodiversity initiatives and frameworks, some of which have already been enacted in UK law.

European Union Directives

The Council Directives 79/409/EEC (April 1979) on the Conservation of Wild Birds and 92/43/EEC (May 1992) on the Conservation of Habitats and of Wild Fauna and Flora aim to maintain, or restore to

favourable conservation status, species listed according to their conservation concern in a series of annexes.

Article 11 requires that incidental capture, killing or damage to species listed in Annex IV is monitored to ensure no negative impact, and that a system of strict protection for such species is established within their natural range, including prevention of deterioration or destruction of breeding sites. Article 14 requires that any taking or exploitation of species listed in Annex V is incompatible with maintenance of a favourable conservation status.

The Natura 2000 network emerges from these EU Directives (Article 3 of the Habitats Directive) and provides a network of protected sites comprising Special Protection Areas (SPAs), detailed for birds, and Special Areas of Conservation (SACs), detailed for habitat types and animal or plant species. It includes obligations to maintain and restore, and involves a strategy of 'integrating damage to biodiversity into liability mechanisms'. These Directives are implemented in the UK by the Conservation (Natural Habitats etc) Regulations 1994.

Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979

The Bern Convention aims to conserve wild flora and fauna and their habitats, promote co-operation between countries, and emphasises endangered and vulnerable species listed in a series of appendices. Article 2 requires parties to maintain or promote populations to levels that correspond with ecological, scientific and cultural requirements. Article 6 prohibits deliberate capture, keeping, killing or disturbance of Appendix II species, trade in dead or live Appendix II animals or their derivatives, deliberate damage or destruction of breeding or resting sites of Appendix II species, with the exception of 'incidental' damage caused by the owner or occupier.

Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat

This requires signatories to designate and protect wetlands of international importance, to promote wetlands generally and to foster the wise use of wetlands.

Bonn Convention on the Conservation of Migratory Species of Wild Animals

This requires the protection of listed endangered migratory species, and encourages separate international agreements covering these and other threatened species.

Convention on International Trade in Endangered Species (CITES)

This prohibits or regulates international trade in species that are threatened with extinction, or likely to become so, and are subject to significant trade.

Appendix B

Hull City Council Nature Conservation Strategy

'Natureplan' was published in 1995 as the nature conservation strategy for Hull. It is a non-statutory planning document that sets out Hull City Council's aims and intentions towards nature conservation, and identifies how the City Council will implement its duties to wildlife. The Hull Local Biodiversity Action Plan is intended to provide a more comprehensive coverage of important habitats and species at the City level. However, the policies contained in Nature Plan still stand and are detailed below.

POLICY NCS 1: SITE AND SPECIES PROTECTION

The City Council will seek to protect species, habitats and areas protected by national and international law. Protection of Sites of Nature Conservation Interest not allocated for development in the CityPlan will be sought and development which will adversely affect such sites will not normally be permitted.

POLICY NCS 2: LOCAL NATURE RESERVES

The City Council will identify areas of land in its ownership suitable for Local Nature Reserves and, where appropriate, will seek to make formal designations.

POLICY NCS 3: NATURE CONSERVATION IN DEVELOPMENT

When proposing or considering proposals for development in the City, the City Council will seek to use its relevant powers to ensure that development proposals are satisfactory from a nature conservation viewpoint, the Green Network links are maintained and that opportunities to improve and maintain wildlife values are fully exploited.

POLICY NCS 4: PROTECTING A GREEN NETWORK

The City Council will seek to retain and enhance a Green network of open space.

POLICY NCS 5: HUMBER ESTUARY

The City Council will consider the ecological and geomorphological impact of any significant development on the Humber Estuary as a whole and seek to work with other authorities/organisations to develop a co-ordinated development/conservation strategy for the Humber.

POLICY NCS 6: MANAGEMENT FOR WILDLIFE

The City Council will seek to pursue habitat management and suitable habitat creation schemes to enhance Sites of Nature Conservation Interest, the Green network, and other areas of potential wildlife interest and encourage others to do likewise.

POLICY NCS 7: ECOLOGICAL ENHANCEMENT

The City Council will seek a general improvement in the ecological value of its land, adopt suitable ecological landscape design and management techniques to achieve this and encourage other land managers to do likewise.

POLICY NCS 8: COMMUNITY AND VOLUNTARY INVOLVEMENT

The City Council will seek to continue to work with local residents, voluntary groups and others to manage, enhance and create an accessible range of informal recreational areas of high ecological value throughout the City.

POLICY NCS 9: WILDLIFE EDUCATION

The City Council will seek to enhance appropriate natural sites around the City and encourage their use for educational purposes and will promote the development of school nature areas and environmental education in general.

POLICY NCS 10: WILDLIFE INFORMATION AND INTERPRETATION

The City Council will seek to provide the general public with a range of interpretive materials/events on city wildlife and nature conservation in general to promote a greater awareness, understanding and enjoyment of City wildlife.

POLICY NCS 11: MONITORING AND REVIEW

The City Council will monitor the success of policies and schemes for conserving and promoting wildlife in Hull and will review progress at regular intervals and modify policies and proposals as appropriate.

Appendix C

Glossary

Acid	Term used to describe soils with a low pH, such as peat.
Aliens	These are plants that have been introduced from other countries planned or accidentally. They may or may not be established or naturalised.
Alkaline	Term used to describe soils of a calcareous nature with a high pH, such as those on chalk or limestone.
Annuals	Plants that complete their life history within a year.
Biennials	Plants that complete their life history over two years, usually flowering in the second year.
Biodiversity	Short for biological diversity, means the diversity of species, the diversity of the habitats in which they live, and genetic diversity within species.
Breeding Birds Survey (BBS)	The monitoring scheme for common and widespread breeding landbirds throughout the UK. It aims to provide data on populations trends to inform and direct conservation action. It is a partnership between the BTO, JNCC and the RSPB. The BBS will replace the long-running CBC.
British Trust for Ornithology (BTO)	A research and conservation organisation in which amateur enthusiasts co-operate with professional ornithologists in national projects, to count birds and monitor populations and distribution.
Calcareous	Made of, or containing, calcium carbonate and therefore alkaline.
Canopy	The uppermost layer of woodland structure
Climax community	The end point of an undisturbed succession under the prevailing climatic and soil conditions.
Common Bird Census (CBC)	A method used for estimating bird populations in woodland and on farms. Bird watchers visit a site regularly during the breeding season, recording every contact with a bird on a large scale visit map.
Coppicing	Cutting shrubs or trees close to the ground to allow new shoots to grow from the stumps on a rotational basis.
Cultivar	A variant of a species that has been selected by gardeners.
Ecology	The study of the relationships between organisms and their environment.
Eutrophic	A lake or river that is enriched, or over-enriched, with nutrients, particularly nitrates or phosphates.
Fauna	The animals of a particular region or habitat.
Flora	The plants of a particular region or habitat.
Glade	A clearing or open place in a forest or wood.
Green Network/Green Corridors	The built up areas of Hull are dissected by a strategic network of linear, semi-natural habitats including the River Hull, main drains and railway lines known as the Green Network. The network links the strategic SNCI and key open spaces and has the potential to allow wildlife to move freely amongst urban green space and into and out of the City.

Habitat	The natural environment of an organism. The place where it lives.
Habitat Creation	The creation of natural landscapes which provide suitable conditions for the establishment of natural processes and communities.
Habitat Statement	A short account of a broad habitat designed to help inform national and local conservation policy and action. Habitat statements for most of the broad habitats were published in the UK Biodiversity Steering Group Report.
Hull City Services	Includes Parks Maintenance, Urban Forestry, Grounds Maintenance.
Hybrids	Crosses between two species.
Invasive plants	The same as aliens, but the term is usually used to describe those that are a nuisance or injurious to other plants, animals or people.
Local Nature Reserve (LNR)	Local Nature Reserves are for both people and wildlife. They are places with wildlife or geological features that are of special interest locally, which give people special opportunities to study and learn about them or to enjoy and have contact with nature.
Long List of Globally Threatened/ Declining Species	A list of 1250 species generated by the BURD database and published in the UK Biodiversity Steering Group Report. The species qualified on the basis of endemism, decline, international significance, and listing in international legislation.
Middle List of Globally Threatened/ Declining Species	Together with the 'Short List', a subset of the 'Long List' comprising approximately 400 species which are globally threatened or have declined in the UK by more than 50% in the last 25 years. Originally published in the UK Steering Group Report, the middle list has subsequently been revised. The majority of middle list species were the subject of a second round of species action plans under development in 1997-1999. The short list and revised middle list are now referred to as the priority species.
Mitigation	Term used to cover measures to protect populations or habitats from damaging activities or to reduce or remove the impact of development. Normally, compensation for loss of habitat is also required, this often takes the form of habitat creation, restoration and enhancement.
Native	Not introduced by man.
Natural Regeneration	Regrowth of woodland through naturally occurring seedlings.
Naturalised Plants	These come originally from other countries (they are 'aliens') but are now firmly established here as introductions, often having escaped from gardens.
Perennials	Plants that grow and flower over several years.
Pollarded	Term used to describe a tree the trunk of which has been cut 2-4 metres above ground level and then allowed to grow to produce a crop of branches.
Provenance	The place of origin of a tree/plant stock, which remains the same no matter where local generations of the trees are raised.
Royal Society for the Protection of Birds (RSPB)	This society champions the conservation of birds and biodiversity.

RSPB Amber List	<p>The Amber List Birds of Conservation Concern are 110 species which are either:</p> <p>In moderate decline</p> <p>Restricted to a small number of sites</p> <p>Present in internationally-important numbers in the UK</p> <p>In unfavourable conservation status across Europe.</p>
RSPB Green List	<p>The 'Green List' species are those which regularly occur in the UK, Channel Islands and the Isle of Man but which do not fulfil the criteria to be placed on the Red or Amber Lists of birds of conservation concern. Their populations are either increasing, stable or have decreased by less than 25% during the last 25 years. Although these are not a high priority for RSPB conservation action, it is vital that monitoring of their populations continues, to provide an early warning of any substantial changes to their status.</p>
RSPB Red List	<p>The Red List species of Birds of Conservation Concern are the 36 species in greatest need of urgent conservation action - the RSPB is undertaking recovery programmes for many of these birds.</p> <p>Birds appear on the Red List for one of three reasons:</p> <p>Their population or range has declined by more than 50% in the last 25 years</p> <p>The species has declined in the long-term (since 1800)</p> <p>It is a globally-threatened species</p>
Sepals	<p>The usually green but sometimes petal-like structures that enclose a flower buds.</p>
Short List of Globally Threatened/Declining Species	<p>Together with the 'Middle List' and a subset of the 'Long List' comprising approximately 400 species which are globally threatened or are declining in the UK by more than 50% in the last 25 years. 114 species action plans for the short-list species were published in the UK Steering Group Report.</p>
Site of Nature Conservation Interest (SNCI)	<p>A non-statutory designation awarded by the City Council to vegetated areas of value for City wildlife and/or people.</p>
Site of Special Scientific Interest (SSSI)	<p>A statutory designation (under the Wildlife and Countryside Act 1981), for areas of national biological, geological, or physiographical interest. The aim of the designation is to safeguard the best of the country's varied wildlife and natural assets.</p>
Species Statement	<p>A summary account of a priority species, setting out its status, any current threats, and the need for active search or conservation through action plans of any related habitat or species.</p>
Spore	<p>A unicellular, asexual, reproductive body.</p>
Transect	<p>A line along which birds, flowers or butterflies are counted in a standardised way.</p>
Tree Preservation Order (TPO)	<p>Local planning authority designation which can be placed on a tree, a group of trees or woodland to help conserve the amenity of an area.</p>

UK Biodiversity Action Plan (BAP)	The UK Government's plan for the protection and sustainable use of biodiversity, published in 1994. It represents a commitment to joint action nation-wide through the securing and better use of resources.
UK Biodiversity Steering Group (UKBSG)	A group of representatives from key sectors established at the launch of the Biodiversity Action Plan to oversee the first stages of the plan. It progressed the development of the first costed species and habitat action plans, and recommended ways of improving information management and dissemination, increasing public awareness and ensuring that the commitments of the BAP are carried out.
UK Habitat Action Plan	A document which describes the current status of a priority habitat, sets 10-15 year targets and objectives for the management, restoration and/or creation of the habitat, and proposes the actions necessary to achieve them. It is accompanied by cost estimates for implementation.
UK Species Action Plan	A 10-15 year summary plan which, based upon the ecological and other requirements of the species, sets out objectives and targets for the maintenance or enhancement of populations and range, and the actions necessary to achieve them.
Understorey	Layer of trees with crowns below those of the dominant trees in the canopy.
Vegetative Reproduction	A sexual reproduction by detachment of some part of the plant, rather than by specialised sexual reproductive organs.
Waterways Breeding Bird Survey (WBBS)	Transect survey of riverine birds.
Wetland Bird Survey (WeBS)	The monitoring scheme for non-breeding waterbirds in the UK which aims to provide the principal data for the conservation of their populations and wetland habitats. It is a partnership between BTO, WWT, RSPB and JNCC.

Abbreviations used in text

ABP
Associated British Ports

BAP
Biodiversity Action Plan

BBS
Breeding Birds Survey

BP
British Petroleum

BC
Building Control

BGEEP
Bransholme Green Enterprise and Environment Project

BTO
British Trust for Ornithology

CBC
Common Bird Census

CHEF
City of Hull Environment Forum

CSS
Countryside Stewardship Scheme

DC
Development Control

DETR
Department of the Environment Transport and the Regions

EA
Environment Agency

EN
English Nature

ESA
Environmentally Sensitive Area

EU
European Union

EYB
East Yorkshire Birdwatchers

EYBG
East Yorkshire Bat Group

FC
Forestry Commission

FoE
Friends of the Earth

FWAG
Farming and Wildlife Advisory Group

GCT
Game Conservancy Trust

GM
Grounds Maintenance

HAP
Habitat Action Plan

HBP
Hull Biodiversity Partnership

HCS
Hull City Services

HEROGA
Hull and East Riding Organic Gardeners Association

HNHS
Hull Natural History Society

HVWG
Hull Valley Wildlife Group

HWW
Hull Wildlife Watch

IDB
Internal Drainage Board

IUCN
International Union for the Conservation of Nature

JNCC
Joint Nature Conservation Committee

KEG
Kingston Environment Group

KuHCC
Kingston upon Hull City Council

LA
Local Authority

LA21
Local Agenda 21

LEAP
Local Environment Agency Plan

LNR
Local Nature Reserve

NEYEDC
North and East Yorkshire Ecological Data Centre

PPG
Planning Policy Guidance

RSPB
Royal Society for the Protection of Birds

SAC
Special Area for Conservation

SAP
Species Action Plan

SMP
Shoreline Management Plan

SNCI
Site of Nature Conservation Interest

SOCC
Species of Conservation Concern

SPA
Special Protection Area

SPG
Supplementary Planning Guidance

SSSI
Site of Special Scientific Interest

TPO
Tree Preservation Order

UK
United Kingdom

UKBSG
United Kingdom Biodiversity Steering Group

WBBS
Waterways Breeding Bird Survey

WeBS
Wetland Bird Survey

WVP
Water Vole Project

WWT
Wildfowl and Wetlands Trust

YBC
Yorkshire Butterfly Conservation

YWT
Yorkshire Wildlife Trust

Appendix D

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Appendix E

Useful Contacts

Hull Biodiversity Partnership

If you want to get involved with nature conservation in Hull or have records of the species mentioned in the Plan then contact the Hull Biodiversity Partnership.

Secretary: Jon Capel
Tel: 01482 612478
Fax: 01482 612382
Email: jon.capel@hullcc.gov.uk

The Hull Biodiversity Partnership is developing a website where you can view the Action Plan, contact partners and hopefully much more in the future.

<http://www.geo.hull.ac.uk/hbap/index.html>

Local Contacts

East Yorkshire Bat Group
7 Orchard Road
Skidby
East Riding of Yorkshire
HU16 5TL

Helpline
Tel: 01482 844800

Environment Agency (Willerby)
1 Viking Close
Great Gutter Lane (East)
Willerby
Hull
HU10 6DE

Richard Jennings (Ecologist)
Tel: 01482 651446
Fax: 01482 654052
Email: richard.jennings@environment-agency.gov.uk
Web: www.environment-agency.gov.uk

Friends of the Earth (Hull)

Sue Jolliffe (Co-ordinator)
Email: ian@jolliffe.karoo.co.uk
Web: beehive.thisishull.co.uk

Hull Natural History Society

Web: www.hull.ac.uk/hullflora

Hull Valley Wildlife Group
670 Hotham Road South
Hull
East Yorkshire
HU5 5LE

www.hvwg.care4free.net

Hull Wildlife Watch
(also Frogline)

Ann Rayner (Leader)
Tel: 01482 631220

North and East Yorkshire Ecological Data Centre
St Williams Foundation
5 College Street
York
YO1 7JF

Email: info@neyedc.co.uk

Police Wildlife Liaison Officer (Hull)

Sue Rhodes
Tel: 01482 326111

Yorkshire Butterfly Conservation

Web: www.yorkshirebutterflies.org.uk

Yorkshire Wildlife Trust Water Vole Project

Jon Traill (Water Vole Project Officer)
Tel: 01430 410295

Yorkshire Wildlife Trust

10 Toft Green
York
YO1 6JT

Enquiries
Tel: 01904 659570
Fax: 01904-613467
Email: info@yorkshirewt.cix.co.uk
Web: yorkshire-wildlife-trust.org.uk

Alan Tharrat (YWT Conservation Officer, East Yorkshire)

National Contacts

British Dragonfly Society

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Bordon
Hants
GU35 0AD

Dr W H Wain (Secretary)
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British Trust for Ornithology

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IP24 2PU

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Butterfly Conservation

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East Lulworth, near Wareham
Dorset
BH20 5QP

Tel: 01929 400209
Fax: 01929 400210
Email: info@butterfly-conservation.org
Web: www.butterfly-conservation.org

English Nature

Northminster House
Peterborough
PE1 1UA

The Enquiry Service
Tel: 01733 455100/1/2
Fax: 01733 455103
Email: enquiries@english-nature.org.uk
Web: www.english-nature.org.uk

Friends of the Earth

26-28 Underwood Street
LONDON
N1 7JQ
UK

Tel: (0)20 7490 1555
Fax: (0)20 7490 0881
Web: www.foe.co.uk

Froglife

Mansion House
27-28 Market Place
Halesworth
Suffolk
IP19 8AY

Enquiries

Tel: 01986 873733
Fax: 01986 874744
Web: www.froglife.fsnet.co.uk

Great Crested Newt Conservation Co-ordinator

Tel: 01986 873733
Email: ruthcarey@froglife.org

RSPB UK Headquarters

The Lodge
Sandy
Bedfordshire
SG19 2DL

Tel: 01767 680551

Web: www.rspb.org.uk

The Bat Conservation Trust

15 Cloisters House
8 Battersea Park Road
London SW8 4BG

Tel: 020 7627 2629

Fax: 020 7627 2628

Web: www.bats.org.uk

The Bat Conservation Trust operates a national (UK) helpline for people with enquiries about bats.

Helpline: 0845 130 0228

helpline@bats.org.uk

The Mammal Society

15 Cloisters House
8 Battersea Park Rd
London SW8 4BG

Enquiries

Tel: 020 7498 4358

Fax: 020 7622 8722

Email: enquiries@mammal.org.uk

The Ponds Conservation Trust

BMS, Oxford Brookes University
Gipsy Lane, Headington
Oxford OX3 0BP

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Email: rsnow@brookes.ac.uk

Web:

www.brookes.ac.uk/other/pondaction/index.

Wildlife Trusts

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NG24 1WT

Enquiries

Tel: 0870 036 7711

Fax: 0870 036 010

Email info@wildlife-trusts.cix.co.uk

Web: www.wildlifetrusts.org