

Barnsley Biodiversity Action Plan



Barnsley Biodiversity Action Plan

Second Edition



Acknowledgements

Barnsley Biodiversity Trust

The Trust is a local voluntary group, registered as a charity and includes local residents, representatives from statutory and voluntary wildlife and conservation groups, countryside access groups, professional ecologists and the local authority.

Representatives from the following organisations support the work of the Trust:

Barnsley Metropolitan Borough Council (BMBC)

Barnsley Bat Group

Barnsley Bird Study Group (BBSG)

Barnsley Naturalists and Scientific Society

British Trust for Ornithology

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Farming and Wildlife Advisory Group (FWAG)

Garganey Trust

Groundwork Dearne Valley

Natural England

Peak District National Park

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Sorby Natural History Society

South Yorkshire Badger Group

South Yorkshire Forest

Wakefield Naturalists Society

Wentworth Castle Trust

Yorkshire Sculpture Park

Yorkshire Wildlife Trust

For further details visit the Trust's website at
www.barnsleybiodiversity.org.uk

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Foreword

Sit down and have a BAP with me

Welcome to the Biodiversity Action Plan, a plan that, if all goes to plan, will make Barnsley a much better place to live. That's the plan. I've lived in Barnsley all my life and, to be honest, I've only become aware of the need for biodiversity over the last few years. Perhaps this is because when I was a lad I took biodiversity for granted. I knew that I would see and experience a variety of plants and birds and animals, even in the days of industrial Barnsley.

I'd wander down to the Horseshoe Pond by the River Dearne and see frogs and toads and sticklebacks and minnows; I'd go to the River Dove down Low Valley and see some amazingly brightly coloured butterflies. I'd sometimes go as far as Broomhill Flash and catch a glimpse of all kinds of birds that I couldn't name. I remember, like a lot of people of my age do, the day the flamingo landed on Broomhill Flash and it seemed like the whole of England came to stare at it with binoculars from the plastic seats of their 1970s cars. Television cameras came, and radio reporters and newspapers and Barnsley was seen as the kind of place flamingos might want to come and live, and that's got to be a good thing.

You can always spot a flamingo, of course, but naming things has never been my strong suit. I saw a tree or a flower, a bird or a mammal. I wasn't sure what they were but I liked the way they looked and, to be honest, I thought that naming them was a waste of time. That just shows how daft I was. The naming and cataloguing of all the variety of wildlife we have in Barnsley is a vital part of the Biodiversity Action Plan. We have to know how many of which species there are around so that we can see if they're in decline or if they're increasing or if, like that flamingo all those years

ago, they've just popped in for a weekend break.

And now we're at a crossroads with Biodiversity in Barnsley; it's a few years since the original review and things don't stand still. Progress has been made and, as is noted in the introduction to this new edition of the plan, human activities in the landscape continue and they're not always for the benefit of wildlife. Diversity is always a wonderful thing, of course, whether it's human diversity, a diversity of ideas, a diversity of architecture or biodiversity. Enjoy this publication and then think how you can help to celebrate biodiversity.

And let's look forward to a day when that flamingo brings all its mates back because Barnsley is such a fantastically biodiverse place to live!

Ian McMillan, Patron



A Local Biodiversity Action Plan for Barnsley

Introduction

Biodiversity embraces all the rich variety of life on earth, encompassing the full range of species and habitats in our natural environment and including all mammals, birds, reptiles, amphibians, fish, insects and other invertebrates, plants, fungi and micro-organisms. Its fundamental importance arises from the contribution that natural and managed habitats and the fauna and flora that depend on them can make to our economy, society and quality of life. Animals and plants are important in their own right, but as part of the broader natural environment, and where they are part of a healthy biodiversity, they contribute to our mental and physical health, education and development of community spirit, in addition to the more tangible benefits of enhanced prospects for regeneration, tourism and the improvement of air quality.

It follows from this that protecting and enhancing biodiversity will help to ensure that current and future residents have opportunities to maintain and improve their physical and mental wellbeing, and that economic development and regeneration are truly sustainable.

The richness of the biodiversity of Barnsley owes its existence to the borough's varied landscapes – from the open moors in the west, to the lowlands of the Dearne in the east – each landscape, be it moorland, woodland, grassland, parks and gardens or neglected former industrial land, supports its own habitats and species which contribute to local distinctiveness and character. Some of these habitats are recognised as being of national and even international importance, while other areas are recognised as important at a local level. They support a countless number of wild species, many of which are noted as being rare or threatened in the UK.

The Barnsley Biodiversity Action Plan (BAP) is intended to provide a sound basis for local action to conserve, protect and enhance the biodiversity of the borough. In 2002, the Barnsley Biodiversity Partnership published the first BAP for the borough. Since 2002, the Partnership which prepared the first BAP has evolved into the Barnsley Biodiversity Trust, with representatives of most of the

original partner groups and others meeting regularly to review biodiversity matters and work towards further activity.

When the original Action Plan was prepared, it was envisaged at the outset as a dynamic document which would need to be amended over a period of time. It is now thought to be the right time to move on to the second edition; by looking at the initial BAP to check its relevance for the next period of action.

The landscape around us continues to evolve in a variety of ways due to man's activities, not all of which are beneficial to wildlife, and it remains essential to monitor the process of change. It must be remembered, however, that not all change is detrimental to wildlife; it is often the case that by appropriate management, significant benefits can be secured.

Notwithstanding the need for a review, the main objectives of the Plan remain fundamentally the same. They merit repeating here:

- To produce a tool for promoting and lobbying for the recognition of the importance of species and habitat conservation.
- To provide a clear framework and response mechanism to wider policies, plans and proposals.
- To produce clear and agreed species and habitat priorities for conservation action.

In taking the Plan forward, the partners in the initial project can look back on a period of considerable achievement. The original BAP set out a series of action points based on the species and habitats which were judged to be most vulnerable at the turn of the millennium. Thanks to the award of a grant of some £300,000 from the 'Transforming Your Space' programme of the Big Lottery Fund, the partnership was able to employ an officer who then oversaw the implementation of many of the initial action points.

A separate report has been produced on these achievements as a prelude to what is envisaged as the next phase of actions (*Barnsley Biodiversity Trust – Audit of Action Points from the Biodiversity Action Plan*).

Revision of the BAP has entailed a review of the state of biodiversity in Barnsley and those familiar with the initial BAP will see many of the original species and habitats identified for action repeated here, indicating that further work needs to be carried out on them. The BAP has a national context which was set out in the initial report, *Biodiversity: the UK Action Plan (1994)*. This document outlined plans to conserve biodiversity and provided a framework to protect and enhance biological diversity throughout the UK, listing species and habitats considered to be threatened nationally.

Updates of this national document have led to the identification of some new threatened species to be included in biodiversity plans being prepared throughout the country and, in line with these findings, species including Hedgehog, Kestrel, Salmon, Bullhead and Dinky Skipper now have their own Species Action Plans in the revised Barnsley BAP. A number of other species identified in the UK BAP list, whilst not meriting full Species Action Plans, are referred to under relevant Habitat Action Plans. The Plan retains a comprehensive list of habitats – the names of some of which have been amended by English Nature since the original BAP – where actions have been identified.

Whilst each element of the Action Plan can be seen as a separate entity, the strength of the package lies in their combined value. If resources can be secured to implement all the actions, the benefits to biodiversity in the borough will be dramatic. The hope of the Biodiversity Trust is that, in five years time, many of the identified actions will have been completed and the Plan will need further revision as a fresh set of biodiversity priorities emerge, some of which will no doubt be a consequence of wider scale changes in, for example, climate, which would inevitably impact on biodiversity.

In the meantime, this second edition of the BAP provides the basis for any person interested in biodiversity matters to become actively involved in a practical way in the enhancement of the borough. This will be of benefit not just for the current generation, but for the future citizens who will hopefully be able to enjoy the remarkably rich environment which we are privileged to have around us every day.

Species Action Plans

SAP1	Hedgehog
SAP2	Bats
SAP3	Water Vole
SAP4	Otter
SAP5	Grey Partridge
SAP6	Bittern
SAP7	Kestrel
SAP8	Little Ringed Plover
SAP9	Lapwing
SAP10	Barn Owl
SAP11	Skylark
SAP12	Tree Sparrow
SAP13	Twite
SAP14	Great Crested Newt
SAP15	Salmon
SAP16	Bullhead
SAP17	White-clawed Crayfish
SAP18	Glow Worm
SAP19	Dingy Skipper
SAP20	Bluebell



Hedgehog

Erinaceus europaeus



Description

The Hedgehog is easily identified as the only spiny British mammal and can be found in parks, gardens and farmland across mainland Britain and Ireland. Preferred habitats include woodland edges, hedgerows and suburban areas. Moorlands, dense conifer plantations and intensively farmed arable areas are particularly unsuitable for this species.

Hedgehogs are strictly nocturnal and forage on the ground for invertebrates such as Earthworms and Beetles. Despite their unwieldy appearance they can climb with surprising agility and can swim. When alarmed, they curl into a defensive ball with the spines offering good protection. Hedgehogs hibernate and remain dormant within nests in leaves or semi-underground from late October to early April. Mating occurs after hibernation and 4–5 young are born in late spring to early autumn. Late-born young rarely survive the winter months.

National Status

Hedgehog numbers appear to have been falling since the 1990s, with consistent declines in yearly numbers recorded since 2001. The decline seems to be most evident in the eastern parts of mainland Britain.

Local Status

Although present throughout most of the borough, little is known about the current population status of this species.

Legal Status

Hedgehogs are partially protected under Schedule 6 of the Wildlife and Countryside Act (1981) and may not be trapped or killed without a licence. This act was updated by the Countryside and Rights of Way Act 2000.

Links with other Action Plans

- HAPI Upland Oakwood
- HAP2 Lowland Mixed Deciduous Woodland
- HAP4 Wood Pasture and Parkland
- HAP5 Hedgerows
- HAP7 Floodplain Grazing Marsh
- HAP8 Lowland Meadows
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Agricultural intensification leading to larger fields, reduced semi-natural habitat and increased use of pesticides.
- Habitat loss associated with change from pastoral farming to arable crops.
- Mowing and strimming in parks, gardens and amenity grasslands.
- Increased traffic leading to more road casualties.
- Use of pesticides, slug pellets, and netting in domestic gardens.
- Accidental drownings in garden ponds.
- Inability to escape from cattle and sheep grids.

Current Local Action

- There is currently no local action specifically for Hedgehogs. They may, however, benefit from local promotion of farmland conservation. Recording is very sporadic.

Proposed Local Action

- Encourage the provision of Hedgehog-friendly environments in suburban gardens and schools.
- Promote the provision of Hedgehog boxes at suitable sites.
- Carry out a survey to determine Hedgehog population and distribution across Barnsley.
- Provide leaflets and promote publicity to increase public awareness of Hedgehog conservation.

BMBC Land Ownership and Management Actions

- Majority of silvicultural works, consisting of logs and brash at Barnsley MBC countryside sites, to be left on site of origin as habitat piles.
- Encourage the provision of Hedgehog-friendly environments in schools, allotments, local parks, amenity grasslands and other public green spaces.
- Encourage the provision of culverts to provide safe crossing points for Hedgehogs, particularly on busy roads.

Bats



Description

Bats have been declining at an alarming rate over the last 15 years, in some cases by as much as 60%. Bats are specialised feeders and are reliant on an abundant supply of flying insects and sheltered areas in which to catch them. Bats also require safe undisturbed roosting sites in which to breed and to spend the winter in hibernation. The National Bat Monitoring Programme (NBMP) has been run by the Bat Conservation Trust (BCT) since 1996 and 11 of the 17 UK species are included in the monitoring programme. The NBMP status given below is taken from the latest report on population trends covering 1997–2006.

National Status

Daubenton's – common/widespread – increasing
Brandt's – common/restricted – no change
Whiskered – common/restricted – no change
Natterer's – common/widespread – increasing
Common Pipistrelle – common/widespread – increasing
Soprano Pipistrelle – common/widespread – stable
Noctule – uncommon/widespread – no change
Leisler's – scarce/widespread – no data
Brown Long-eared – common/widespread – no change

Local Status

Nine of the UK's 17 Bat species are found in the Barnsley area.

Daubenton's – *common/widespread*
Brandt's – *no data*
Whiskered – *scarce*
Natterer's – *common/restricted*
Common Pipistrelle – *common/widespread*
Soprano Pipistrelle – *no data*
Noctule – *scarce*
Leisler's – *rare*
Brown Long-eared – *common/restricted*

Legal Status

Bats are listed on Appendix III of the Bern Convention, Annex IV of the EC Habitats Directive and Appendix II of the Bonn Convention (and are included under the Agreement of the Conservation of Bats in Europe). They are protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994 (Regulation 38).

All Bats in the UK are fully protected under the Wildlife and Countryside Act 1981, updated by the Countryside and Rights of Way Act 2000, and the Habitat Regulations 1994, updated by the Conservation (Natural Habitats, etc.) (Amendment) Regulations, 2007. Under the legislation it is an offence to take, kill, injure or disturb Bats or obstruct or destroy their roosts.

Links with other Action Plans

Bats are likely to benefit from improvements included in the following action plans:

HAPI Upland Oakwood
HAP2 Lowland Mixed Deciduous Woodland
HAP3 Wet Woodland
HAP4 Wood Pasture and Parkland
HAP5 Hedgerows
HAPI5 Ponds
HAPI6 Rivers
HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Disturbance and loss of roost sites due to building repair and improvement (eg. roof repair, fascia and soffit replacement).
- Disturbance and loss of roost sites due to development eg. house extensions, barn conversions, demolition and tree pruning/felling.
- Use of toxic timber treatment chemicals in buildings.
- Loss of feeding habitat through changes in land use, agricultural management or development resulting in the loss of insect-rich habitats, wetlands and meadows.
- Loss of linear landscape features such as trees and hedgerows, which provide commuting routes from roosts to feeding areas.

Current Local Action

- Regular monitoring of a small number of sites for National Bat Monitoring Programme.
- Ongoing survey work to identify new roost sites and feeding areas.
- Visits to domestic properties via Natural England's helpline, where problems are being encountered.
- Providing advice to roost owners.
- Maintaining a database of records.
- Guided walks programme of one or two per year.

Proposed Local Action

- Continue the survey and monitoring of known roosts and carry out a survey of the River Dearne in order to identify important feeding areas for Bats, additional roost sites and areas where habitat improvements could be made.
- Increase voluntary activity by recruiting more bat workers in Barnsley, training more bat workers for Natural England licence and continuing to expand the guided walks programme when more volunteers are available.
- Survey other habitats in the borough to determine species and populations for future protection and habitat enhancement.
- Investigate potential for securing the bridge roost for Daubenton's Bat at the eastern end of RSPB Old Moor, with potential for species population increase in the surrounding areas due to the large-scale wetland habitat.
- Ensure that the needs of Bats are considered in development, large-scale land management schemes and riparian management schemes on the River Dearne, in order to maintain the nationally-significant roost of Daubenton's Bat near Old Mill Lane.

BMBC Planning Policy Actions

- Ensure that Bats and their habitats are protected and promoted through appropriate regional and local planning policy instruments.
- Provide guidance for planning and building control officers, developers and architects on Bat conservation in buildings.
- Seek to protect existing valuable habitats from threats including building conservation, loss of tree cover, enhanced levels of lighting and public access and also seek to create new habitats where possible.

- Ensure that the owners of buildings/features containing Bat roosts/breeding sites are aware of the presence and legal status of Bats, and advise on appropriate methods for their conservation.
- For sites where there is reasonable suspicion that Bats may be present, ensure that a comprehensive Bat survey is carried out prior to granting planning permission, and any necessary mitigation and Natural England Licensing are a condition of planning permission.

BMBC Development Control Actions

- Bats must be considered at an early stage in the planning application process. Adopt policies and procedures to ensure that the presence of Bats is identified and given adequate consideration in all planning applications.
- Encourage the use of Bat-friendly design features, both in new buildings and in the renovation of existing structures.
- Workshop for development control officers on biodiversity checklists.
- Distribute best practice guidance notes regarding Bats and development to developers.
- Ensure that building works are carried out in accordance with planning permissions.

BMBC Land Ownership and Management Actions

- Ensure that felling licence applications and other tree management works do not affect existing or potential Bat roosts or breeding sites.
- Bat surveys to be completed on mature native woodland trees on Barnsley MBC countryside sites prior to any felling.

Water Vole

Arvicola terrestris



Description

The Water Vole is the largest of the British voles with a head and body measuring around 20cm. Water Voles inhabit the banks of slow-flowing rivers, streams and ditches as well as still water such as lakes, ponds and dykes. Their presence can be determined by searching for their burrows at and above water level, together with characteristic piles of droppings (latrines) and feeding remains.

The famous 'Ratty' from *Wind in the Willows* is a Water Vole. Despite that name, they are not rats and they suffer from much unfair persecution when mistaken as such. Water Voles are one of the easiest mammals to see in the wild. They need suitable habitat in close proximity to allow populations to expand and recolonise areas. Water Voles also need areas to retreat to in the event of flooding. Water Voles do not hibernate, but remain in their burrows for much of the winter with a food store.

As the lower reaches of rivers become unsuitable for habitation, the distribution of Water Voles becomes discontinuous and existing sites become isolated and vulnerable.

National Status

The Water Vole is found throughout Britain with strongholds in lowland areas near water. Once common and widespread, this species has suffered a significant decline in numbers and distribution. A national survey in 1989–90 failed to find signs of Voles in 67% of sites where they were previously recorded. A recent population estimate based on the number of latrines found suggested a total Great Britain pre-breeding population of 1,200,000 animals.

Local Status

Within the Barnsley area the main areas which still contain this species are the Rivers Dove and Dearne, with parts of the remaining Barnsley canal system and also the tributaries of the River Don. Unfortunately, Mink are moving into these areas, increasing the threat to remaining populations.

Legal Status

In 1998 they received limited protection under the Wildlife and Countryside Act, 1981. It is now an offence to damage, destroy or obstruct access to any place which Water Voles use for shelter or protection.

Links with other Action Plans

- HAP3 Wet Woodland
- HAP7 Floodplain Grazing Marsh
- HAPI1 Upland Heathland
- HAPI4 Reedbeds
- HAPI5 Ponds
- HAPI6 Rivers

Current Factors Causing Loss or Decline

- Loss of suitable bank side habitats as a result of engineering, bank side development or over-zealous vegetation clearance.
- Population fragmentation: increasingly, populations are being isolated by new roads, canalisation, development and loss of habitat.
- Water level fluctuations: Water Voles need slow water level fluctuations or refuge areas to retreat to when water levels rise quickly.
- Predation: the spread of non-native Mink throughout the UK has significantly increased the severe decline in Water Vole numbers.

- Pollution: contamination of water by pesticides, heavy metals, slurry and sewage may have contributed to the decline.
- Poisoning: indirect poisoning of Water Voles by Brown Rat poison.

Current Local Action

- A national survey for Water Vole was conducted by the Vincent Wildlife Trust in 1989–90.
- Yorkshire Wildlife Trust has an Otter and Rivers project covering South Yorkshire.
- Some Water Vole surveys in the Dearne Valley
- Occasional recording at various sites

Proposed Local Action

- Survey potential Water Vole sites away from the Dearne and Don where past surveys have been completed.
- Carry out a review of the Water Vole population in Barnsley at established and possible new sites, including the collation of previous surveys of both Thurlstone and Langsett Moors and the Dearne Valley.
- Identify new potential sites for wetland creation as part of flood defence strategy works/aggregate extraction etc. with a view to reducing the distance between existing populations and creating offline habitats and refuges from Mink and regular inundation.
- Promote leaflets on Mink trapping to landowners in the uplands and other targeted areas.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Ensure that the habitats occupied by Water Voles are given an appropriate level of protection in local plans and designate all Water Vole sites as Natural Heritage Sites (NHS).

BMBC Development Control Actions

- Ensure that Barnsley MBC planning officers are aware of legislation requirements concerning Water Voles (enhanced protection under the Wildlife and Countryside Act) and

that all developments near known sites take full account of Water Vole requirements.

- Ensure that all planning applications are adequately assessed in relation to their impact on Water Vole sites, that loss or damage to these is avoided and that opportunities for enhancement or creation of appropriate Water Vole habitats are maximised.
- On land owned by public or conservation bodies, ensure that management maintains and, where possible, enhances Water Vole habitat and consideration is given to restoration and creation of Water Vole habitats.
- Consider the impact on Water Voles when assessing planning applications.
- Take opportunities through the planning system to restore or create Water Vole habitats and explore possibilities of long-term management agreements.
- Avoid damage to actual or potential Water Vole habitat caused by culverting, channelisation, sheet piling, and flood defence work wherever possible, and explore opportunities for restoring watercourses to a more natural structure.

BMBC Land Ownership and Management Actions

- Look for appropriate opportunities to create Water Vole breeding habitat on Barnsley MBC countryside sites.
- Seek to control Mink on all Barnsley MBC owned sites.

Otter

Lutra lutra



Description

The Otter is a large member of the stoat and weasel family, which occurs in rivers, streams, lakes, marshes and coastal habitats. Otters are opportunistic hunters that will take a wide range of prey, but mainly feed on fish. The Otter is a top predator in the river ecosystem and, as such, it occurs at a naturally low density. A male Otter may use up to 40km of watercourse. This would include main rivers as well as smaller tributaries, along with ponds, lakes, riverside woodland and wetlands. This use of a wide geographical and habitat type range means that a catchment-wide approach is essential to Otter conservation. Otters require a plentiful food supply. Eels are often particularly favoured. Amphibians and Crayfish may be locally or seasonally important, and small mammals and birds are occasionally taken.

Secure, undisturbed breeding sites and secure, undisturbed lying-up/resting sites are essential if Otters are to establish and maintain sustainable populations. One such 'lying-up' site is needed approximately every kilometre of watercourse. The decline of Otter now appears to have halted and sightings are being reported in former habitats.

National Status

Formerly widespread throughout the country, the Otter underwent a rapid decline from the 1950s to the 1970s, leaving the species absent from most of England. Otters are now returning to many areas through natural re-colonisation, with the expansion of populations from Scotland, Wales, north and west England. This has been assisted in some parts by re-introductions. The UK Biodiversity Action Plan target is to restore breeding Otters to all river catchments where they were present before 1960.

Local Status

Historically, Otters were found throughout Yorkshire but by the 1980s were nearly lost from the county. South Yorkshire was particularly badly affected. However, increases in evidence of Otter activity have now been recorded in all parts of Yorkshire.

The Rivers Derwent and Esk were the subject of successful Otter release programmes by the Vincent Wildlife Trust and English Nature in the early 1990s, and it is hoped that these breeding populations will provide a source of Otters for neighbouring catchments.

A 2005 survey of Otters in Barnsley confirmed evidence of Otter activity along the Dearne Valley and there has also been evidence of activity on a tributary of the River Don in the west of the borough.

Legal Status

The Otter is listed on Appendix I of CITES, Appendix II of the Bern Convention and Annexes II and IV of the Habitats Directive. It is protected under the Wildlife and Countryside Act 1981. The European sub-species is also listed as globally threatened on the IUCN/WCMC Red Data List.

Links with other Action Plans

- HAP3 Wet Woodland
- HAPI4 Reedbeds
- HAPI5 Ponds
- HAPI6 Rivers
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- **Water quality**
Pollution from many sources, including agricultural run-off and heavy metal contamination, is a problem.
- **Loss of habitat**
Intensification of river management has led to loss of Otter habitat.
- **Insufficient food**
Associated with lower water quality, which results in a reduction in fish stocks. Particularly a problem as Eel stocks are very low in some areas.
- **Accidental death**
Road traffic accidents are probably the biggest single threat to the re-establishment of a thriving Otter population.
- **Disturbance**
Otters need some quiet areas for resting and breeding. Increasingly, these are becoming unavailable.
- **Population fragmentation**
Increasingly, populations are being isolated by new roads, canalisation, development and loss of habitat.

Current Local Action

- Yorkshire Otters and Rivers Project provides advice and undertakes survey work. LEAP plans include targets and actions for encouraging Otters.
- Development of wetlands on restored areas is providing new habitat. RSPB Old Moor includes an artificial Otter holt.

Proposed Local Action

- Implement recommendations from the 2005 and 2007 River Dearne and Upper Don surveys, including the creation of secluded areas through scrub planting such as in the Dearne Valley and protecting and/or fencing off existing areas.
- Advise all applicants for new or expanding fisheries of the need to provide adequate defences against possible predation by Otter in the future.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the owners of riverbank industrial sites to safeguard any Otters present and to promote the expansion of the Otter population through habitat creation.
- Create Local Development Framework (LDF) supplementary planning guidance on Biodiversity and Waterfront Development, including the expectation that opportunities will be sought to improve and create habitat, rather than just slow the loss of habitat. A proactive planning approach should be adopted to retain native bankside cover, including dense brambles and scrub, and control invasive plants when brown field sites are redeveloped.

BMBC Development Control Actions

- Implement Highways Agency mitigation when upgrading old road bridges (Nature Conservation and Roads: Advice in relation to Otters ISBN 0 9529371 4 X) on watercourses including tributaries.
- Limit accidental killing of Otters by providing underpasses on new and existing roads where appropriate.

Grey Partridge

Perdix perdix



Description

This familiar bird of open country – including farmland – has an orange brown face, grey breast and belly, all closely and finely barred, chestnut bars on the flanks and a curved horseshoe-shaped mark on the upper belly.

Grey Partridges nest on the ground in hedge bottoms, grass margins, game cover and nettle beds. Dead, tussocky grass left over from the previous year is particularly attractive as nesting cover. Adult Grey Partridge feed on seeds and shoots throughout the year on areas such as rotational set-aside, winter stubble, weeds and crop margins. The chicks need a diet of insects, especially caterpillars, bugs, ants and aphids, taken mainly from crop margins and weed areas.

The current UK population has dropped dramatically to less than 150,000 pairs due to loss of habitat for nesting and feeding – this being caused by modern farming practices.

National Status

The UK population of Grey Partridge declined by over 50% between 1969 and 1990. Populations in some mixed farming areas seem stable, but in other areas declines have sometimes exceeded 95%.

Local Status

The breeding population of this species in Barnsley may exceed 100 pairs and a comprehensive survey would reveal the true status of this species in the borough.

Casual observations suggest that there may have been a slight increase in the eastern parts of the borough due to 'greening' of former industrial areas.

Legal Status

The Grey Partridge is protected in Britain under the Game Acts. It is also listed on Annex III/I of the EC Birds Directive and Appendix III of the Bern Convention.

Links with other Action Plans

- HAP5 Hedgerows
- HAP6 Arable Field Margins
- HAP9 Lowland Dry Acidic Grassland
- HAP17 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Loss of nest sites (such as hedge bottoms) to farm intensification.
- Reduced food supplies and sources for chick food through the use of pesticides and herbicides, as well as the loss of winter stubble feeding grounds for overwintering birds.
- Vulnerability of nests to predators in farmland with poor cover.
- Nest destruction caused by early mowing and other farm operations.

Current Local Action

- The Game Conservancy Trust (GCT) encourages land managers to create suitable conditions for Grey Partridge, including suitable nest sites and cover, summer and winter feeding areas (eg. conservation headlands and winter stubbles), and control of predators and shooting.
- A Species Action Plan has been prepared for this species by the RSPB, FWAG and the GCT.
- DEFRA will continue to encourage the management of 'Environmental Stewardship Land' sensitively for this species.
- An estimation survey of the borough's population was completed in 2002/2003 by volunteers and published by Barnsley Biodiversity Trust in 2008, entitled, *Birds of Conservation Concern*.

Proposed Local Action

- Assess current coverage of DEFRA Stewardship Schemes that support Grey Partridge options (with Natural England).
- Encourage landowners to take up a Stewardship Scheme to benefit Grey Partridge (Natural England lead).
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Grey Partridge.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.

BMBC Land Ownership and Management Actions

- Produce 'best practice' guidelines to promote positive management practices on Local Authority owned land.
- Review management of public green space to provide suitable grass margin habitat for Grey Partridge.
- Promote habitat linkages between Local Authority owned land and suitable habitat in agricultural land (eg. land under stewardship).

Bittern

Botaurus stellaris



Description

The Bittern is smaller than the closely related Heron and much more secretive. They are heavily camouflaged in shades of brown and buff with a variety of mottled markings.

Although rarely seen, the male's unmistakable booming call in spring is a good indication of potential breeding. The Bittern is dependent on large areas of reed for breeding. Bitterns have dramatically declined in recent years, due to habitat loss through drainage and decline of food supply such as fish and amphibians.

Bittern are still declining in many parts of the UK and it is now a rare breeding species, but progress is being made in some habitats as part of the RSPB national initiative.

Creating extensive 'phragmites' reed-beds in a fresh water habitat with abundant fish and amphibians as a source of food appears to be the key to success.

National Status

The Bittern is a declining, localised and rare breeding species. It is confined almost entirely to lowland marshes in Norfolk, Suffolk and Lancashire, dominated by the common reed *Phragmites australis*. It feeds principally on fish and amphibians. The UK population had declined to 15 or 16 'booming' males in 1994 from a peak of 70 pairs in the late 1960s, when they bred in eight counties. Numbers are boosted in winter by continental migrants (usually less than 100).

Local Status

Within Barnsley this species is recorded as a passage migrant or occasional winter visitor, but reedbed habitat creation has been carried out to encourage colonisation. There has been a major initiative to plant new reedbeds in the Lower Dearne Valley by the RSPB with the aim of attracting breeding birds.

Legal Status

The Bittern is listed on Annex I of the EC Birds Directive and Appendix III of the Bern Convention. It is protected in the UK under Schedule I of the Wildlife and Countryside Act, 1981.

Links with other Action Plans

HAPI4 Reedbeds

Current Factors Causing Loss or Decline

- Loss of suitable large reedbeds through succession, inappropriate management (particularly drainage and water abstraction).
- Degradation of habitat through water pollution, pesticide and heavy metal pollution.
- Food availability, especially of Eels, affected by inappropriate habitat management and pollution.
- Problems due to small isolated population size.

Current Local Action

- Large reedbeds have been created at the RSPB's Old Moor site. These have been deliberately designed to attract Bittern.
- Reedbed management has been undertaken at Worsbrough Reservoir and this will hopefully attract wintering or even breeding Bittern.

Proposed Local Action

- In partnership with Environment Agency (EA), RSPB and other landowners, look at improvements along the Dearne to benefit Bittern.
- Create additional hectares of new reedbed at Bolton Ings (RSPB) to support Bittern.
- Assess reedbed creation project at Worsbrough Reservoir and identify any further action required at this site.
- Identify and survey other sites in the borough for reedbed management, enhancement or creation.

BMBC Land Ownership and Management Actions

- Seek to reduce tree encroachment on Barnsley MBC Carlton Marsh Local Nature Reserve (LNR) main lake.
- Consider dredging works to maintain suitable wetland habitat at Barnsley MBC Carlton Marsh LNR.

Kestrel

Falco tinnunculus



Description

The Kestrel is a small bird of prey, brown or reddish-brown in colour, with long wings and a long tail. Kestrels are most often seen singly, hunting during the day, with a characteristic hovering flight. This species is found in a variety of habitats, including urban areas, but is most numerous in areas of rough grassland where small mammals can be found. Embankments and reservations along motorways and other busy roads are frequently used as hunting sites.

Kestrels do not build a nest but use holes in trees, buildings, old crow nests and nest boxes, if they are provided. The 4–6 eggs, which are laid in a shallow scrape, take about 30 days to hatch, with the young flying some 30 days later.

The decline of Kestrel is typical of species that depend on grassland which provides small mammals as food. The loss of this habitat, along with the loss of nest sites, has caused the decline.

National Status

Kestrel numbers suffered a serious decline in the late 1950s and 1960s due to the effects of pesticides such as DDT. Although a recovery was noted after the withdrawal of such pesticides, numbers began to decline again in the 1980s. Figures from 1988–91 estimate the UK breeding population to be 52,000 pairs.

The Kestrel appears on the Amber List of *Birds of Conservation Concern* as a result of a moderate decline in the UK breeding population and its adverse conservation status in wider Europe.

Local Status

Although present throughout most of the borough, little is known about the current population status of this species.

Legal Status

The Kestrel is protected under the Wildlife and Countryside Act (1981), making it an offence to kill, injure or take a Kestrel, or to take, damage or destroy an active nest or its contents.

Links with other Action Plans

- HAP4 Wood Pasture and Parkland
- HAP5 Hedgerows
- HAP6 Arable Field Margins
- HAP7 Floodplain Grazing Marsh
- HAP8 Lowland Meadows
- HAP9 Lowland Dry Acidic Grassland
- HAP10 Lowland Heathland
- HAP11 Upland Heathland
- HAP17 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Population fluctuations in main prey species.
- Agricultural intensification leading to larger fields, reduced semi-natural habitat and increased use of pesticides.
- Habitat loss associated with change from pastoral farming to arable crops.
- Loss of/lack of nest sites due to development and changing land use.

Current Local Action

- Twelve Barn Owl boxes installed at sites across the borough in 2006/07 also make provision for occupation by Kestrels.
- Local promotion of farmland conservation may also benefit this species.
- Recording of Kestrel by members of Barnsley Bird Study Group as part of the forthcoming *Breeding Bird Atlas*.

Proposed Local Action

- Install nest boxes at suitable sites.
- Publicity to increase public awareness of Kestrel.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Kestrel.
- Encourage the creation and effective management of rough grassland to support key prey species.
- Encourage the provision of unmanaged grassland margins on agricultural land under Stewardship agreements, to provide suitable habitat for prey species.

BMBC Land Ownership and Management Actions

- Maintain Elsecar Reservoir Local Nature Reserve (LNR), Carlton Marsh LNR and other Barnsley MBC owned grassland zones to prevent encroachment of scrub.

Little Ringed Plover

Charadrius dubius



Description

Little Ringed Plover is a scarce summer visitor from Africa that spread from continental Europe as a breeding species during the 1930s.

The bird has sandy-brown upperparts and white underparts with black neck and head markings and a yellow eye-ring.

It frequents wetlands and water features in the district, where it breeds on shingle islands and waterside stones at some sites. The bulk of the population, however, breeds on post-industrial ground or any suitable extensive bare ground and mainly in the eastern part of Barnsley.

The nest site is usually on bare ground, but when the young hatch they require wet areas and pools for feeding.

Between July and September, most birds migrate out of Britain to overwinter in suitable habitats around the Mediterranean, North Africa and West Africa. Return migration is quite early, with many birds arriving back in March.

National Status

The first breeding record for Little Ringed Plover was in 1938 and the subsequent spread in England and Wales is one of the ornithological success stories of the 20th century. The present UK population is estimated at 600 pairs. The birds have adapted to man-made nesting areas and these have become their most favoured habitats. The present population is stable, although there is some concern for the long-term future of the species; gravel and mineral workings become exhausted and man-made sites are restored and put to other uses, so that areas where this species has bred through a succession of years may be lost forever.

Local Status

There is presently a fairly healthy population of Little Ringed Plover in the Barnsley area; the 16 pairs located in 2000 could possibly account for 3% of the national population.

Four pairs attempted breeding at RSPB Old Moor, five pairs at Grimethorpe on derelict industrial land and spoil heaps, and seven pairs on development land in the Dearne Valley. There is also a possibility that other suitable sites may be used, but these remain unrecorded.

Little Ringed Plover is protected in Britain under Schedule 1 and Schedule 9 of the Wildlife and Countryside Act, 1981. It is an offence to kill or injure Little Ringed Plover or to disturb it while nesting.

Links with other Action Plans

HAP7 Floodplain Grazing Marsh

HAP17 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Much of the habitat on post-industrial sites has been lost, with the remaining sites being scheduled for reclamation works in the next few years. Little Ringed Plovers have also bred on shingle islands at RSPB Old Moor. Islands provided elsewhere in the Dearne have been lost as breeding sites through bad management, resulting in the invasion of vegetation. A large proportion of the Barnsley area breeding population has recently bred on land scheduled for development. These sites are only temporary, and if not developed in the near future will be lost through succession to pioneer vegetation unless appropriately managed.

Current Local Action

- RSPB has cleared some islands of vegetation at Old Moor.
- Recording by Barnsley Bird Study Group annually mainly within the lower Dearne valley.
- A survey of the borough's population was done in 2001 by volunteers and published by Barnsley Biodiversity Trust in 2008, entitled, *Birds of Conservation Concern*.

Proposed Local Action

- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Little Ringed Plover.
- In partnership with landowners, seek to improve habitats for breeding Little Ringed Plover.

Lapwing

Vanellus vanellus



Description

With its slow, flappy flight of flickering black and white and 'pee-wit' call, the Lapwing is hard to mistake. In spring, males have a tumbling display flight.

Close inspection reveals the iridescent green of the upper parts, purple and copper at the wing bends, a black and buff facial pattern, a wispy black crest and pink legs.

In spring and summer, breeding birds prefer mixed farmland, avoiding trees and hedges. Preferred nesting crops include spring-drilled cereals, legumes, roots and rotational set-aside. Lapwing do not nest in autumn- or winter-drilled cereals as these become too tall by the start of the breeding season.

Wet grasslands are an important breeding habitat and particularly if there is a nearby shallow area containing water. In winter, permanent grassland, winter stubble and fallow fields are preferred by flocks of Lapwing, but if the weather is too harsh they move to Ireland, south-west England or to continental Europe.

National Status

The Lapwing was a common and familiar breeding species of bare ground and short vegetation throughout the British Isles.

The decline of the species started in the 19th century due to changes in agriculture such as drainage, enclosures and egg collecting.

The Lapwing Act (1926) put restrictions on egg collecting which greatly reduced the scale of egg gathering and, combined with agricultural depression at that time, there was a rapid recovery in numbers. However, as agricultural intensification increased during the 1960s, there was a parallel decline in breeding Lapwings. Between 1987 and 1998 the breeding population dropped by 48% in England.

Local Status

The Lapwing is protected under the EC Birds Directive and also protected under the Wildlife and Countryside Act, 1981. It is an offence to kill or injure Lapwing or to disturb it while nesting.

Legal Status

The Lapwing is 'amber listed' in *Birds of Conservation Concern in the UK* because it winters in internationally important numbers.

Links with other Action Plans

- HAP7 Floodplain Grazing Marsh
- HAP8 Lowland Meadows
- HAP9 Lowland Dry Acidic Grassland
- HAPI3 Purple Moor Grass and Rush Pasture
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

In a survey in 1987, over 90% of Lapwings found breeding were on agricultural land. A number of changes in farming practices have had a serious effect on Lapwing populations. These changes are highlighted as follows:

- Loss of spring-sown cereals.
- Loss of unimproved grassland and intensification of grassland management.
- An increase in livestock numbers and trampling rates.
- A reduction of mixed farming.
- Drainage of marginal grasslands.

Current Local Action

- The landscaping of RSPB Old Moor in the Dearne Valley has created an improved and safe habitat for breeding Lapwing and has provided a safe winter roost site for large numbers of birds.
- Recording is carried out by Barnsley Bird Study Group as part of the forthcoming *Breeding Bird Atlas*.
- A survey of the borough's population was done in 2001 by volunteers and published by Barnsley Biodiversity Trust in 2008, entitled, *Birds of Conservation Concern*.

Proposed Local Action

- Assess current coverage of DEFRA Stewardship Schemes that support Lapwing options (with Natural England).
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Lapwing.
- Encourage landowners to take up a Stewardship Scheme to benefit Lapwing (Natural England lead).

Barn Owl

Tyto alba



Description

The Barn Owl is the ghost-like, white owl of country folklore. The upperparts are pale orange-buff with white underparts. The bird is often seen hunting the fields and hedgerows during the last light of the day. The Barn Owl is found in almost every continent and is one of the most widely distributed land birds in the world. It nests and roosts in tree cavities, old and derelict farm buildings and barns, and produces 4–6 eggs, which are incubated for 30 days. Young birds fly after 50 days but are dependent on the parents for food for a further 3–5 weeks. Barn Owls feed mainly on small mammals such as Rats, Mice, Voles and Shrews.

The presence of Barn Owls is a good indicator of the health of biodiversity in lowland areas, as the range of habitats needed by the species is also vital for a wide range of other animals and plants.

National Status

The Barn Owl was quite a common sight in the 19th century, but the UK population has fallen by an estimated 90% since 1830.

The decline has been particularly sharp in the last half of the 20th century, mainly due to agricultural intensification. Recent national population figures (1996) put numbers at 3,750 pairs in England and Wales and 650 pairs in Scotland. With the addition of some non-breeding birds, the total figure is around 10,000 birds.

Local Status

Described in 1844 by naturalist Dr Farrar as being 'abundantly numerous everywhere' but now, sadly, fairly scarce. Most Barn Owls in the area are located in the eastern half of Barnsley where there are still extensive areas of rough grassland on post-industrial land. There were 12 pairs in the borough in 1996 (survey carried out by Carr and Massey, 1996) and this has now increased to at least 18 pairs (Carr, 2006 survey).

Legal Status

Protected in Britain under Schedule 1 and Schedule 9 of the Wildlife and Countryside Act, 1981: EC Birds Directive; Appendix II of Bern Convention. It is a priority species under European Law. It is an offence to kill or injure a Barn Owl or to disturb it while it is using a nest.

Links with other Action Plans

- HAP5 Hedgerows
- HAP6 Arable Field Margins
- HAP7 Floodplain Grazing Marsh
- HAP8 Lowland Meadows
- HAP9 Lowland Dry Acidic Grassland
- HAPI5 Ponds
- HAPI6 Rivers
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- The main factor for the decline of the Barn Owl is thought to be the loss of suitable feeding habitat, resulting from the intensification of agriculture. Contributory factors are believed to be past severe winters, toxic pesticides in the 1950s to 1970s, second generation rodenticides in the 1980s and 1990s and urbanisation (including increased mortality due to road traffic).

Current Local Action

- Some private landowners manage areas of actual or potential Barn Owl habitat and have a vital part to play in conserving the species.
- New areas of suitable habitat have been created on post-industrial land that will help to maintain the species.
- Barn Owls have been monitored in the past by the BTO/Hawk and Owl Trust, by BTO/FWAG and Barnsley Bird Study Group recorders.
- A comprehensive survey of Barn Owls in the borough was carried out in 2006 and published by Barnsley Biodiversity Trust.

Proposed Local Action

- Provide and install nest boxes at suitable sites and preferably away from busy main roads to prevent road deaths.
- Monitor the population of breeding Barn Owls.
- Assess current coverage of DEFRA Stewardship Schemes that support Barn Owl options (with Natural England).
- Encourage landowners to take up a Stewardship Scheme to benefit Barn Owl (Natural England lead).

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Promote awareness of the legal protection afforded to Barn Owls among landowners, planning officers and contractors.

BMBC Development Control Actions

- When assessing applications for the conversion of old or derelict agricultural buildings, ensure that they will not result in damage to Barn Owl nest and roost sites and adjacent habitats. Barnsley MBC must consult Natural England if there is reason to believe that Barn Owls may be present.
- Encourage the use of Barn Owl boxes, both in new buildings and in the renovation of existing structures.
- Give advice on farm building conversions where Barn Owls may be present, particularly at the planning application stage.
- Use best practice to ensure that design and management of river corridors and roadside habitats take Barn Owls into account.

BMBC Land Ownership and Management Actions

- Landowners to be advised on land management for Barn Owls and establish a database of landowners supporting the conservation programmes.
- Encourage land management suitable to Barn Owls throughout the borough, especially between breeding sites and along river corridors.

Skylark

Alauda arvensis



Description

With its famous ascending and prolonged song flight, the Skylark was once the most distinctive bird of open agricultural terrain and other grassy areas.

The bird has a complex pattern of buff and brown plumage, a fairly stout beak, and short crest. In flight, the wings and short tail have trailing edges of white. The Skylark avoids trees, and nests on the ground in vegetation 20–50cm high. This vegetation must be open enough to give the bird easy access.

They have two to three broods between April and August. Both autumn- and winter-sown cereals grow too tall and dense by spring and grass silage is cut too frequently to allow successful breeding. Adults feed on the seeds of crops and weeds in winter, and along with the chicks, they feed on insects in summer. This food is found in crops, set-aside and pasture land.

In winter, birds usually flock together on suitable feeding habitat and may move around the country during harsh weather.

National Status

The Skylark is amongst the most widespread of open country breeding birds. Nonetheless, the UK breeding population is in sharp decline. Numbers on lowland farms fell by 61% between 1971–1995. Recent studies indicate similarly steep declines in upland habitats. The Skylark is a priority species in the UK Biodiversity Action Plan on account of its declining population.

Local Status

Skylarks continue to breed throughout Barnsley wherever suitable habitat remains and are absent only from the most heavily built-up areas. The breeding population in 1997–99 was thought to be around 500–750 pairs and in 2004 a survey estimated 660 pairs.

Legal Status

The Skylark is protected under the EC Birds Directive and the Wildlife and Countryside Act, 1981.

Links with other Action Plans

- HAP7 Floodplain Grazing Marsh
- HAP8 Lowland Meadows
- HAP9 Lowland Dry Acidic Grassland
- HAPI3 Purple Moor Grass and Rush Pasture
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Intensive management of arable fields has reduced weeds and insect prey through the use of agrochemicals.
- The change from spring- to autumn-sowing of cereals has reduced the availability of weedy stubble fields, which provide an essential food resource and suitable nesting habitat.
- Conversion of lowland grassland to arable, intensive management of grasslands and loss of mixed farms.
- The reasons for decline in the uplands are the loss of natural meadow areas and appropriate management.
- Early silage cutting which destroys nests and exposes them to predators.
- Conversion of farmland to silage production and intensification of arable land has reduced both feeding and nesting habitat.
- Scrub encroachment in some areas not under agriculture.
- Loss of grassland habitat to development and tree-planting.

Current Local Action

- Local distribution and population size were estimated by Barnsley Bird Study Group surveys in 1999.
- An additional estimated survey was undertaken by volunteers and coordinated and published by Barnsley Biodiversity Trust in 2004, entitled, *Birds of Conservation Concern*.
- Current survey by members of Barnsley Bird Study Group towards the forthcoming *Breeding Bird Atlas*.

Proposed Local Action

- Assess current coverage of DEFRA Stewardship Schemes that support Skylark options (Natural England lead).
- Encourage landowners to take up a Stewardship Scheme to support Skylark (Natural England lead).
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Skylark.

BMBC Land Ownership and Management Actions

- Review management of public green space, industrial sites and derelict land to provide suitable undisturbed grassland habitat for Skylark.

Tree Sparrow

Passer montanus



Description

The Tree Sparrow is slightly smaller than its more familiar cousin the House Sparrow and has a chestnut crown.

A bird of colonial habits, it has a restricted distribution in rural districts, preferring relatively open countryside with old timber (for nest sites) and old buildings where it will nest in holes and cavities. Occasionally, they build nests of dried grass and feathers in dense bushes and will also use nest boxes.

Tree Sparrow usually have two to three broods between April and August and feed the chicks on insects from a wide range of habitats including hedges, crops and waterside vegetation.

Adults feed mainly on seeds which they seek from rotational set-aside, winter stubbles, root crops, crop margins and weed areas.

In the past, Tree Sparrow populations have fluctuated, but recently at a more alarming rate. It is likely the reason for the decline is two-fold: changing agricultural practices and loss of available nest sites, the latter being borne out by the fact that nest boxes are readily occupied.

National Status

Patchily distributed on farmland across Britain. The main populations are now found across the Midlands and southern and eastern England. There have been irregular fluctuations in numbers. In Britain there was a high population in the 1880s to the 1930s, but numbers then decreased to a low point around 1950. Numbers then increased again from 1960 to 1978, possibly due to an influx of birds from mainland Europe. There was a decline of 85% in numbers in Britain between the two breeding surveys of 1968–72 and 1988–91, the largest decline of any common species during this period. The Tree Sparrow also decreased in range in Britain by 20% over the same period. Populations are mainly sedentary but large-scale autumnal movements occasionally occur.

Local Status

There are known colonies at RPSB Old Moor, Birthwaite Hall Farm, Edderthorpe and other small local populations, thriving partly due to nest box provision and winter feeding. A survey in 2005 found 84 pairs breeding within the Barnsley borough.

Legal Status

The Tree Sparrow is protected under the Wildlife and Countryside Act, 1981 and EC Birds Directive.

Links with other Action Plans

- HAP4 Wood Pasture and Parkland
- HAP5 Hedgerows
- HAP6 Arable Field Margins
- HAP17 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Changing agricultural practices, particularly the increased use of herbicides.
- Shift from spring-sown to autumn-sown crops and the consequent loss of winter stubble fields.
- More intensive management of grassland.
- Reduction of habitat diversity on farmland due to the loss of mixed farming and increased specialisation.
- Availability of nest sites may be a limiting factor.
- The loss of Elm trees from lowland Britain removed large numbers of potential nest sites.

Current Local Action

- Nest box schemes and winter feeding have been successfully implemented at RSPB Old Moor and Birthwaite Hall Farm.
- DEFRA will continue to manage Environmental Stewardship land sensitively for this species.
- A survey conducted by Barnsley Biodiversity Trust and Barnsley Bird Study Group found 84 pairs breeding in the Barnsley borough. This was published by Barnsley Biodiversity Trust, entitled, *Birds of Conservation Concern*.
- Funding from Voluntary Action Barnsley provided 165 nest boxes which were installed at sustainable locations around the Barnsley borough.
- Current survey by members of Barnsley Bird Study Group towards the forthcoming *Breeding Bird Atlas*.

Proposed Local Action

- Provide and install nest boxes at suitable locations.
- Assess current coverage of DEFRA Stewardship Schemes that support Tree Sparrow options (with Natural England).
- Encourage landowners to take up a Stewardship Scheme to support Tree Sparrow (Natural England lead).
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Tree Sparrow.

Twite

Carduelis flavirostris



Description

The Twite is a small brown bird heavily streaked above and below, with a pink rump. It is the upland equivalent of the Linnet.

Twite occur in largely treeless areas, notably hills, mountains and moorlands, and over-winter in coastal areas.

They breed mainly in areas of unenclosed moorland edge and fringing farmland. In the South Pennines, nests are mainly in tall Heather, or among mounds of Bracken litter, and on the ground.

During the breeding season birds may fly up to 2km from the moorland nest site to species-rich meadows to feed. They feed mainly on seeds, and during the spring, particularly Dandelion heads. In the summer months, the young are fed on Sorrel, which is a close relative of Dock, and this is the key species needed for their survival.

By October most Twite leave the moorland habitat or in-bye land for the coast, where they remain in varied-sized flocks, feeding on a variety of weed seeds.

National Status

A Red List Bird of High Conservation Concern due to significant historical declines in population between 1800 and 1995. Formerly a Red Data Bird in Britain, as a species breeding and wintering in internationally-significant numbers.

In comparison to other passerines, little is known about the Twite's numbers, status and ecology.

In 1992 an estimated 65,000 pairs of Twite bred in the UK. The current population from a 1999 survey is thought to be an alarming 12,000 birds. It is clear that there has been a dramatic decline during the 1990s. The majority of birds are found in Scotland, with small populations in the South Pennines and in Wales. Britain holds the vast majority of the EC Twite population, in fact more than 90%.

Local Status

Twite in the South Pennines are now down to around 225 pairs with core populations around Halifax, Marsden and Meltham. The present Barnsley population could now be breeding in very low numbers, or possibly be extinct as a breeding species.

Legal Status

The Twite is protected in the UK under the Wildlife and Countryside Act, 1981, the EU Birds Directive and Appendix 2 of the Bern Convention.

Links with other Action Plans

HAPI1 Upland Heathland

HAPI3 Purple Moor Grass and Rush Pasture

Current Factors Causing Loss or Decline

- Most important limiting factor on the breeding grounds is thought to be the agricultural intensification of the moorland fringe. This results in loss or overgrazing of herb-rich in-bye meadows and pastures important for feeding,
- The loss of Heather and Bracken nesting habitats through conversion to grassland.
- Overgrazing and excessive Bracken control.
- Poor Heather burning management.

Current Local Action

- RSPB research and evaluation of the Twite population in the South Pennine Uplands.
- Recording by Barnsley Bird Study Group.
- Feeding programme established at Winscar Reservoir.

Proposed Local Action

- In partnership with landowners and the National Twite Project (led by RSPB and funded by Natural England) provide feeding stations at suitable locations to encourage Twite.
- Survey of historic and recent locations to assess status.

BMBC Development Control Actions

- On land owned by public or conservation bodies, ensure that management maintains, and where possible, enhances, Twite breeding and feeding habitats.
- Consider the impact on Twite breeding/feeding sites when assessing planning applications.
- Encourage sympathetic management of quarries and other derelict sites on the moorland fringe.

BMBC Land Ownership and Management Actions

- Review Wogden Foot management plan with Coalfield Heathland Project to ensure Twite habitat not compromised and, preferably, enhanced.

Great Crested Newt

Triturus cristatus



Description

The Great Crested Newt is an impressive animal, considerably larger than our other two species of Newt. Appearing almost black above, it has a bright orange belly with black spots. In the breeding season the male has a crest along its back.

Great Crested Newts have a requirement for large deep pools, with an abundance of floating and submerged vegetation during the breeding season (April to August). They prefer ponds with no fish. Most of the year they are terrestrial and they require tall grassland and woodland to hunt and over-winter. This surrounding terrestrial habitat is particularly important and the Newts are more likely to survive if there are a number of suitable ponds within a small area.

Winter hibernation is usually in old walls, under log-piles or holes in bankings. They emerge in March when the weather is favourable and head for the same pond they left the previous September/October.

National Status

The Great Crested Newt is still quite widespread in Britain.

The species may be numerous locally in parts of lowland England and Wales but is absent or rare in parts of Cornwall and Devon. It has a more restricted distribution in Scotland and it is absent from Northern Ireland.

The species has suffered a decline in recent years, with studies in the 1980s indicating a national rate of colony loss of approximately 2% over five years. It is estimated that there are a total of 18,000 breeding sites within Britain which may contain Great Crested Newts, although only 3,000 of these have been identified. The British population is amongst the largest in Europe, where it is threatened in several countries.

Local Status

Barnsley currently has identified eight separate sites for this species and a further survey would complete the full picture of status.

Legal Status

The Great Crested Newt is listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994, (Regulation 38) and Schedule 5 of the Wildlife and Countryside Act, 1981.

Links with other Action Plans

- HAP3 Wet Woodland
- HAP4 Wood Pasture and Parkland
- HAP5 Hedgerows
- HAP7 Floodplain Grazing Marsh
- HAPI5 Ponds
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Loss of suitable breeding ponds caused by water table reduction, in-filling for development, intensive farming, waste disposal, neglect or fish stocking and the degradation, loss and fragmentation of terrestrial habitats.
- Pollution and toxic effects of agrochemicals.

Current Local Action

- There is currently no local action specifically for Great Crested Newts. However, they will benefit from wetland creation schemes and from the creation and restoration of farm ponds under schemes such as the Countryside Stewardship Scheme. There have been past actions to conserve this species when affected by new developments.

Proposed Local Action

- Survey and monitor all known sites and survey potential new locations.
- Ensure that Great Crested Newt is included in the management plan for Wilthorpe Marsh under HAP7.
- Prepare a costed plan and implement works at Keepers Pond, Wentworth Castle.
- In partnership with Wentworth Castle Trust, assess the restoration plans for the Serpentine to benefit Great Crested Newt conservation.
- Prepare costed plans and support works at Wentworth Castle Serpentine, Cudworth Common and Wilthorpe Marsh.
- Produce management plans for all Great Crested Newt sites.
- Ensure that the best sites, including Cudworth Common, are on the Natural Heritage Sites (NHS) Register. The site boundaries should contain appropriate terrestrial habitat requirements.

BMBC Planning Policy Actions

- Ensure that all developments near known sites take full account of Great Crested Newt requirements.
- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Identify all Great Crested Newt occupied ponds in Local Development Framework (LDF).

- Seek to ensure that Great Crested Newt sites are protected from development. Where adverse impacts are unavoidable, seek adequate mitigation through the planning process.
- Designate all Great Crested Newt sites as Natural Heritage Sites (NHS).
- Ensure that the Council is aware of all sites holding this species.

BMBC Development Control Actions

- On land owned by public or conservation bodies, ensure that management maintains and, where possible, enhances Great Crested Newt breeding and feeding habitats.
- Consider the impact on Great Crested Newt breeding/feeding sites when assessing planning applications.

BMBC Land Ownership and Management Actions

- Advise owners and tenants of the location of, and their responsibility towards, Great Crested Newt sites on their property.
- Have regard to Great Crested Newt legislation when altering Barnsley MBC managed ponds and work with SY Ponds Project to develop new habitat opportunities on some sites.

Salmon

Salmo salar



Description

The Atlantic Salmon is the largest European member of its family and males may reach over 10kg, with much larger specimens in the traditional Scottish rivers. It is a migratory fish and spends time as a juvenile in fresh water, leaving this environment to grow to adulthood at sea. It returns to coastal waters in the spring and summer, moves upstream into our rivers and spawns during the winter months. Adults return to the same river in which they were hatched to continue the life cycle, but most die after spawning.

Salmon is an interesting fish which can adapt to both salt water during its main growth period and back into fresh water to spawn. Whilst most Salmon return to the rivers in which they were hatched after 2–4 years at sea, some Salmon explore estuaries and other river systems. Salmon is an indicator of very high river quality and therefore a symbol of what we should be seeking to improve our rivers.

National Status

Apart from 'traditional' Salmon rivers in the UK, only the Scottish rivers have broadly maintained a sustainable stock over the last century. Other river stocks became extinct or were reduced to seriously low levels due to pollution, loss of habitat and river obstructions. Now, with many rivers having a much improved quality from the efforts of the Environment Agency, fishing clubs and others, Salmon are increasing in many rivers. While it is hoped that water quality will continue to improve, further measures are needed to remove obstacles, that were installed mostly during the past industrial period. Also, possible spawning gravels may contain past contaminants which may hinder breeding.

Local Status

Although currently there are no recent records of Salmon within Barnsley's rivers, there are records quite close within the adjoining River Don, in Doncaster. As river quality continues to improve in Barnsley, it is only a matter of time before Salmon are recorded and, hopefully in the future, breeding.

Legal Status

Salmon is listed on Annex II of the EC Habitats Directive, regulated by the Salmon and Freshwater Fisheries Act 1975 (as modified by the Water Act 1989, the Water Resources Act 1991 and the Environment Act 1995) and the Atlantic Salmon Act 1986, in conjunction with by-laws made under these pieces of legislation.

Links with other Action Plans

HAPI6 Rivers

Current Factors Causing Loss or Decline

- Salmon have a complex life and there are many factors which contribute to decline. Within the ocean there are problems such as over-fishing, sea pollution and sea temperatures rising through climate change. River factors include localised pollution, obstructions caused by weirs and culverts, and loss of spawning habitats upstream.

Current Local Action

- There is no current local action, but it is known that local fishing clubs are aware that Salmon may be entering Barnsley's rivers in the near future and that they are concerned with the various problems that may hinder successful colonisation.

Proposed Local Action

- Monitor any progress of Salmon into the River Don and River Dearne.
- Work with the Environment Agency (EA), the Local Authority and relevant fishing clubs to support the success of Salmon colonisation.
- Use Salmon as a species to promote clean rivers in Barnsley.

Bullhead

Cottus gobio



Description

The Bullhead is the only freshwater member of the family *Cottidae* that is native to the UK. It is a small fish with a large mouth, large pectoral fins, prominent eyes and a wide, flattened head – hence the common names ‘Bullhead’ and ‘Miller’s thumb’. Males are commonly 10cm in length, but can be up to 18cm. It has a brownish colour with mottling or barring and pale undersides. During the spawning period males become blacker in colour with a white-tipped dorsal fin, and females become plump.

It is a bottom-living animal that inhabits a variety of rivers, streams and stony lakes. It favours fast-flowing, clear, shallow water with a hard substrate and is frequently found in the headwaters of upland streams. The Bullhead spends a large amount of its life under flat stones and rocks – often in competition with the White-clawed Crayfish. However, it also occurs in lowland situations on softer substrates, so long as the water is well-oxygenated and there is sufficient cover. It is not found in badly polluted rivers.

It emerges at dusk to feed on small, bottom-living insects and other animals, occasionally being cannibalistic. It is a visual, ambush predator, being a good swimmer, moving in short, sharp darts along the river bed. Bullheads often behave aggressively towards one another and competition for shelter and foraging space can be intense. In turn, they are vulnerable to a wide range of predators, particularly Brown Trout and Heron.

National Status

The species is widespread and often common in rivers across Europe; however its stronghold is across the majority of England and Wales.

Local Status

Bullheads are found in many of the feeder streams of the main rivers in the west of the borough, such as the Upper Don. In particular, dense populations are present in the Cawthorne Dike and Silkstone Beck catchments. But, as with the White-clawed Crayfish, these populations are thought to be at risk of predation by the invasive Signal Crayfish which is extending its range in this area. It is expected that the Signal Crayfish will densely populate all open watercourses in the borough in years to come and become a threat to Bullheads.

Legal Status

The species is listed in Annex II of the EC Habitats Directive, ie. a species of EC interest from a conservation point of view, requiring the setting up of Special Areas of Conservation.

Links with other Action Plans

HAPI6 Rivers

Current Factors Causing Loss or Decline

- The reasons for the poor status of this species in Europe are unclear.
- Pollution.
- Competition and predation from invasive species such as the Signal Crayfish.
- Changes to watercourses.
- Sediment run-off from farmland.

Proposed Local Action

- Bring together all existing data sets from all sources relating to the borough's population of Bullheads – primarily held by the Environment Agency (EA).
- If additional survey work is required, implement this as appropriate.
- Liaise with the national species champion authority to ascertain whether conservation measures are needed and, if so, what would be appropriate.
- Identify key river and stream sections for Bullhead populations and develop a conservation and enhancement strategy for the species in the borough.

BMBC Development Control Actions

- Ensure all planning applications are adequately assessed in relation to their impact on Bullhead populations and habitat, and that loss or damage is avoided.

White-clawed Crayfish

Austropotamobius pallipes



Description

The White-clawed Crayfish is the only species of freshwater Crayfish which is native to the UK. It grows to about 10–12cm in length and gets its name from the pale undersides to its claws which contrast with the upper side of the animal, which is dark greenish brown. Crayfish have fearsome looking ‘pincers’ though they rarely use them.

Crayfish live in both flowing and still water, and are usually found in calcareous streams with stony beds. However, they do live in other areas and can live in water with some sediment. They take about six years to reach full size, but breed after three or four years. They mate in October/November, with eggs hatching the following May/June.

White-clawed Crayfish require good water quality to support their prey species – insect larvae and fish. They also feed on larger plants and detritus. Crayfish are declining for a number of reasons, including direct competition from three introduced species. These alien species also spread a fungal disease which is killing off our native Crayfish.

National Status

In Europe this Crayfish was formerly widespread in France, Spain and Italy, but populations are now confined to a diminishing number of areas. It is widespread in appropriate sites across the UK, but many populations have been lost since the 1970s. There are still disease-free strongholds of the Crayfish in parts of the North Pennines.

Local Status

This species still exists within the stream system in western Barnsley and a number have been translocated to safeguard their future. Future surveys will reveal its true status in the area.

Legal Status

The species is listed in Appendix III of the Bern Convention and Annexes II and V of the EC Habitats Directive. It is classed as globally threatened by IUCN/WCMC. It is protected under Schedule 5 of the Wildlife and Countryside Act, 1981 in respect of taking from the wild and sale. The Salmon and Freshwater Fisheries Act, 1975 prohibits the taking of this species by certain methods and requires consent for proposed introductions.

Links with other Action Plans

HAPI5 Ponds

HAPI6 Rivers

Current Factors Causing Loss or Decline

- Crayfish plague is a disease caused by the fungus *Aphanomyces astaci* which is carried by some North American Crayfish including the Signal Crayfish. Spores from the fungus can also be transmitted by a variety of other means, including water, fish and damp equipment.
- Direct competition for food and habitat from non-native Crayfish: three non-native Crayfish species are now breeding in the wild.
- Habitat modification and management of waterbodies.
- Pollution, particularly pesticides and sewage.

Current Local Action

- Translocation, under licence, to a sustainable, isolated pond to safeguard the species.
- Survey of the river system where White-clawed Crayfish exist.

Proposed Local Action

- Carry out monitoring surveys of existing and possible new locations.
- Assess the potential to provide new offline refuges to help safeguard the species and monitor the progress of the refuge at Cannon Hall.

BMC Development Control Actions

- Ensure all planning applications are adequately assessed in relation to their impact on White-clawed Crayfish populations and habitat, and that loss or damage is avoided.
- Ensure that Barnsley MBC planning officers are aware of the legal protection afforded to White-clawed Crayfish under the Wildlife and Countryside Act.

Glow Worm

Lampyris noctiluca



Description

The Glow Worm is a fairly large beetle; the winged male is 10–12mm long and the wingless female 15–20mm. They are active only after dark and so need good cover to conceal themselves from predators.

Grassland vegetation, logs, cracks and crevices with humid conditions are ideal habitats. In addition, the female needs a prominent position such as a bank, hummock, tussock or similar feature, to attract a passing male by 'glowing'.

Adult Glow Worms are active between June and August in a short summer breeding period, during which they do not feed and after which they die.

The Glow Worm's light is produced by a series of chemical reactions within the cells of the female's light organ. Oxidation of an active chemical, luciferin, in the presence of a catalyst, luciferase, causes the shedding of atoms and a release of energy in the form of light. The reaction is extremely efficient – wasting only 2% of its energy as heat. As a consequence, a brilliantly glowing female remains cold to the touch.

Glow Worms feed on a small snail species that is found in certain habitats, and this is crucial for survival and species continuation.

National Status

Many sites which contained Glow Worms have been unknowingly destroyed and their habitat fragmented; this leads to group isolation and the extinction of a local population.

Most Glow Worm sites are in southern England, but there are isolated colonies north into Scotland. Throughout the UK there is a gradual decline of the species due mainly to habitat loss, but also due to pollution, insecticides, loss of food (various snail species) and changes in climate.

Local Status

There is currently one known site in Barnsley at Thurgoland.

Legal Status

There is no legal protection for the species.

Links with other Action Plans

HAP8 Lowland Meadows

HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Mainly due to loss of improved grasslands, but also due to the loss of woodland fringe and banks.
- Areas which contain Glow Worm becoming overgrown.

Current Local Action

- There has been some attention given to identifying the distribution of the species in Barnsley, but currently there is only one site.
- There has been some habitat management to retain or expand the Glow Worm population.

Proposed Local Action

- Continue to monitor the Thurgoland site and inspect other parts of the Trans-Pennine Trail for additional sites.
- Expand the Thurgoland site for the existing population by a management programme of cutting back trees and vegetation, and providing suitable ground conditions.

BMBC Land Ownership and Management Actions

- Routine management of Trans-Pennine Trail (TPT) between Thurgoland and Wortley to be sympathetic to Glow Worm needs.
- Barnsley MBC to work with Barnsley Biodiversity Trust and BTCV on occasional basis to enhance Glow Worm habitat.

Dingy Skipper

Erynnis tages



Description

The Dingy Skipper is an inconspicuous, small brown and grey Butterfly. It is extremely well camouflaged and may be confused with the Grizzled Skipper, the Mother Shipton Moth and Burnet Companion Moth, which sometimes occur on the same sites at the same time. In sunshine, the Dingy Skipper often basks on bare ground with wings spread wide. In dull weather and at night it perches on the top of dead flowerheads in a moth-like fashion, with wings curved in a position not seen in any other British butterfly.

Colonies occur in a range of open sunny habitats, including woodland rides and clearings, heathland, disused quarries, chalk downland, and coastal habitats such as dunes and undercliffs. Waste ground is an important habitat over much of the English Midlands. It includes disused mineral workings, spoil heaps, mines, railway lines, storage depots and even rubbish tips. Larval foodplants are Bird's-foot Trefoil, and on heavier ground, Greater Bird's-foot Trefoil. Horseshoe Vetch is also used on calcareous soils. Suitable conditions occur where foodplants grow in a sparse sward, often with patches of bare ground in a sunny, sheltered situation. Taller vegetation is required for shelter and roosting.

There is one generation a year, with adults usually flying from early May until the end of June. In an unusually warm spring they can begin to emerge as early as the second week in April. In hot summers there may be a partial second brood in August at some sites.

National Status

The Dingy Skipper is locally distributed throughout Britain and Ireland, but has declined seriously in recent years. This is the most widespread Skipper in Britain and Ireland, although it is more localised and patchily distributed than the Large and Small Skippers. In Scotland there are a few colonies in the north-east, mainly occurring on coastal dunes, widely separated from colonies in the south-west. It is the only Skipper found in Ireland. In Wales it is most often found in coastal habitats and rarely occurs above 100m. The central and southern counties of England, extending northwards to Derbyshire, form the stronghold of the species, with especially large colonies occurring on extensive areas of chalk downland and undercliff. It is absent from most offshore islands, the Channel Islands and the Isle of Man.

Because many colonies are small, they may be overlooked, especially as they are so inconspicuous. There is no doubt, however, that it has declined considerably in recent years. The survey for *The Millennium Atlas of Butterflies in Britain and Ireland* revealed that it has probably disappeared from almost 40% of the 10km squares in which it was recorded in 1970–82. The number of colonies has probably also decreased in many 10km squares where the butterfly is still present. Data from Butterfly Monitoring Scheme (BMS) sites shows a long-term decline in numbers, greater than for most other species. Populations are lower after a poor summer and rise after a warm one, though prolonged drought can reduce population size the following season. Dingy Skipper is the subject of a national Species Action Plan by Butterfly Conservation.

Local Status

The current status in Barnsley is unclear. Scattered colonies are known from Penistone eastwards. However, some sites where Dingy Skippers were present in the 1970s will have been lost due to lack of management. Indications are that the species is very local and largely, perhaps almost exclusively, dependent upon land which is in the industrial and post-industrial category.

Legal Status

There is currently no legal protection for this species except in Northern Ireland.

Links with other Action Plans

- HAP2 Lowland Mixed Deciduous Woodland
- HAPI0 Lowland Heathland
- HAPI7 Open Mosaic Habitats on Previously Developed Land

Current Factors Causing Loss or Decline

- Changes in forestry practice, especially the cessation of coppicing, have led to shadier woods without suitable open areas.
- Lack of continuity of open spaces in woodlands and inappropriate ride management.
- Agricultural intensification, eg. ploughing and the replacement of native grassland vegetation with perennial rye-grass or arable crops.
- Over- or under-grazing of grassland/scrub habitats.
- Infilling of old quarries, development of post-industrial derelict and degraded land.
- Lack of management on disused, artificial (industrial) habitats and the consequent loss of early successional vegetation.
- Fragmentation and isolation of existing colonies and the intensive use of the surrounding agricultural land.
- Tree planting on existing or potential habitats.

Current Local Action

- There is no current local action specifically for Dingy Skipper. However, the species should benefit from appropriate management, eg. on rehabilitated post-industrial land and in woodlands. The Coalfield Heathland Project and Higher Level Stewardship Schemes should also be beneficial.

Proposed Local Action

- Undertake a survey of known and potential breeding sites in Barnsley.
- Identify the key locations and populations for this species in the borough and work with Butterfly Conservation to develop a conservation strategy.
- Establish a suitable regime of management at priority sites.
- Monitor sites where suitable management has been introduced.

BMBC Land Ownership and Management Actions

- Routine management of Trans-Pennine Trail (TPT) to be sympathetic to Dingy Skipper needs.
- Barnsley MBC to work with Barnsley Biodiversity Trust and BTCV on occasional basis to enhance Dingy Skipper habitat.

Bluebell

Hyacinthoides non-scripta



Description

Bluebell is the well-known flower of our woodlands and creates a blue wash of colour that carpets the woodland floor in late April and May. Often picked by children in the past, the Bluebell is now protected under the Wildlife and Countryside Act.

The Bluebell is a widespread and popular plant of ancient and semi-natural woodlands and is a species most associated with well-managed woodlands, in particular, coppiced woods. The UK is thought to hold at least 20% of the global population. The Bluebell is found mainly in the western part of the borough where ancient and semi-natural woodlands occur. It is located in 103 one kilometre squares in the borough (26.6% of total woodland area). *Hyacinthoides non-scripta* should not be confused with Spanish Bluebell *Hyacinthoides hispanica* which is found in many urban gardens and is a threat to our native species through hybridisation.

National Status

The better Bluebell woodlands in the country occur in natural and semi-natural habitats and are well represented in managed and, particularly, coppiced woodlands.

A national decline has occurred, due to some loss of woodlands but, possibly, also due to the overplanting of ancient woodland sites with conifers. Such overplanting causes continuous shading and, hence, conditions unsuitable for Bluebells.

Collecting of Bluebells for commercial use has been a problem in some parts of the country.

Local Status

Bluebells are located in natural and semi-natural woodland throughout the borough. They are found in 26.6% of the total woodland area of the borough.

Legal Status

The Bluebell is now protected as a schedule plant species under the Wildlife and Countryside Act, 1981.

Links with other Action Plans

- HAPI Upland Oakwood
- HAP2 Lowland Mixed Deciduous Woodland
- HAP5 Hedgerows

Current Factors Causing Loss or Decline

- Overplanting Bluebell abundant woodlands with conifers causing loss through shading.
- Unmanaged woodlands contribute to the decline of the plant.
- Invasive species such as bracken (in unmanaged areas) or lack of traditional coppicing management will cause a decline of Bluebell.
- Collecting Bluebell for commercial use.

Current Local Action

- Increasing implementation of appropriate management of some woodland areas.
- Some local recording is being carried out by naturalists and individuals.

Proposed Local Action

- Produce a map and supporting document with information on all known Bluebell sites in the borough.
- Continue to expand knowledge of the occurrence of Bluebell by seeking additional data.
- Where possible, survey the known Bluebell sites close to human habitation to assess whether or not Bluebell are under threat from garden Spanish Bluebell.

BMBC Land Ownership and Management Actions

- Barnsley MBC countryside sites to be managed so as to be sympathetic to Bluebells – eg. no major silvicultural works April–July.

Habitat Action Plans

- HAP1 Upland Oakwood**
- HAP2 Lowland Mixed Deciduous Woodland**
- HAP3 Wet Woodland**
- HAP4 Wood Pasture and Parkland**
- HAP5 Hedgerows**
- HAP6 Arable Field Margins**
- HAP7 Floodplain Grazing Marsh**
- HAP8 Lowland Meadows**
- HAP9 Lowland Dry Acidic Grassland**
- HAP10 Lowland Heathland**
- HAP11 Upland Heathland**
- HAP12 Blanket Bog**
- HAP13 Purple Moor Grass and Rush Pasture**
- HAP14 Reedbeds**
- HAP15 Ponds**
- HAP16 Rivers**
- HAP17 Open Mosaic Habitats on Previously Developed Land**



Upland Oakwood



Description

Upland Oakwoods are characterised by a predominance of Oak (most commonly Sessile Oak, but locally Pedunculate Oak) and Birch in the canopy, with varying amounts of Holly, Rowan and Hazel as the main understorey species. The range of plants found in the ground layer varies (according to the underlying soil type and degree of grazing) from Bluebell-Bramble-Fern communities through Grass-Bracken dominated ones.

Most Oakwoods also contain areas, often along streams or towards the base of slopes, where much richer communities occur. In such areas, Ash and Elm occur in the canopy, and there is more Hazel in the understorey. Ground plants include Dog's Mercury, Ramsons and Tufted Hair Grass. Many Oakwoods also hold a distinctive breeding bird assemblage – Redstart, Wood Warbler and Pied Flycatcher being associated with them throughout much of their range. The invertebrate communities are not particularly well-studied compared to those in some other woodland types, but Oakwoods can support a range of notable species, including the locally-rare Purple Hairstreak Butterfly.

The age of many of these woodlands means that they are important for Ancient and Veteran Trees and deadwood. They are also valuable Badger sites.

National Status

There are no precise figures for the total extent of this woodland type, but it is believed to be between about 70,000 and 100,000ha, mainly in the north and west of the UK. For some of the distinctive species present, Britain and Ireland hold a substantial part of the World/European population.

Upland semi-natural woods have declined by about 30–40% in area over the last 60 years as a result of replanting, mainly with introduced conifers, clearance for quarries or other developments in some areas, and from conversion to rough grazing.

South Yorkshire has more than 300ha of this woodland, a figure which underestimates the actual extent. The region undoubtedly has a significant proportion of the national total.

Local Status

This type is well represented in Barnsley by 30 woodlands. Eight of these are included in the Natural Heritage Site (NHS) register by being of high local value. Mainly found in the west and south-west of the borough, these include: Hollin and Spring Woods at Langsett; Wharnccliffe Wood and Chase; West Wood at Hoyland; Wombwell Wood (the biggest single wood in the area); Sunny Bank; Horse Carr; Storrs Mill and West Haigh Woods in the Dearne Valley; and Hoyland Bank to the north.

Legal Status

Habitat protection is provided by the Wildlife and Countryside Act, 1981 and the resulting SSSI network. Oak woodland is also listed on Annex I of the EC Habitats Directive. National forestry policies include a presumption against the clearance of any broadleaved woodland for conversion to other land uses and seek to maintain the ecological interest of ancient semi-natural woodland. Felling licences will normally be required if the woods are not managed under plans approved by the Forestry Authority. Management of semi-natural woodlands, including Upland Oakwoods, has to be in accordance with guidelines published by the Forestry Authority in order to receive felling licences or grant-aid.

The sites in Barnsley identified as Natural Heritage Sites have a presumption against planning permission for change of land use.

Links with other Action Plans

SAP2 Bats
SAP20 Bluebell

Current Factors Causing Loss or Decline

- Over-grazing by sheep and deer throughout much of the range of the woods.
- Invasion by species such as rhododendron, which shades out the ground layers and eliminates much of the conservation interest.
- Development pressures such as new roads and quarrying.
- Effects of air pollution, especially on lichen and bryophyte communities.
- In some cases, unsympathetic forest management, where felling rates, choice of broadleaf species planted, or methods of working do not yet reflect published guidelines.

Current Local Action

- A number of sites have been listed in the Council's Unitary Development Plan as locally important sites with a presumption against development.
- West Haigh Wood, owned by Barnsley MBC, has a Management Plan.
- The South Yorkshire Forest project covers part of the borough and includes woods of this type.

Proposed Local Action

- Review Ancient Woodland Inventory.
- Identify ownership of woodlands.
- Survey and complete a register of all Ancient and Veteran Trees.
- Encourage landowners to leave deadwood within woods where appropriate.
- Local Badger Group to continue to survey and monitor the Badger population.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Tree Pipit, Lesser Redpoll, Spotted Flycatcher and Wood Warbler.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Ensure that Local Development Framework (LDF) policies are in place to protect native woodlands.
- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Upland Oakwood habitat, or instigate other appropriate measures for their protection.

BMBC Development Control Actions

- Consider the impact on native woodlands when assessing planning applications.
- Enforce Tree Preservation Orders (TPOs) as appropriate.
- Take opportunities through the planning system to restore or create woodlands and explore possibilities of long-term management agreements.
- Ensure all planning applications and General Development Orders are adequately assessed in relation to their impact on Upland Oakwood, that loss or damage is avoided and that opportunities for enhancement or creation are considered in relevant planning decisions.
- Encourage a review of Permitted Development Rights that currently allow potentially damaging recreational activities for 14 days per year – such as 4-wheel drive trials.
- Through planning control or other land use consultation processes, allow no further loss of areas of Upland Oakwood and seek opportunities to enhance existing areas and create new areas through approved development.
- Encourage development control teams to use planning conditions and Section 106 agreements to secure improved woodland management related to new development.

BMBC Land Ownership and Management Actions

- Barnsley MBC countryside sites to be managed so as to contribute to Biodiversity Action Plan (BAP) Upland Oakwood targets.

Lowland Mixed Deciduous Woodland



Description

The term Mixed Deciduous Woodland is used for woods on base-rich soils in the north and west, in most of which Ash is the major species, although locally Oak, Birch, Elm, Small-leaved Lime and even Hazel may be the most abundant species. Alder may occur where there are transitions to wet woodland. Despite variations in canopy composition, the ground flora remains broadly similar.

The type is also found on more acid poorly-drained soils where there is flushing of nutrients. Often these are just small fragments with irregular margins or narrow strips along flushes, riparian tracts, outcrops and steep banks. Most Mixed Deciduous Woodlands are probably ancient, but Ash is a vigorous colonist of open ground. Many woods have been treated as coppice in the past, others have been wood-pastures, but most now have a high forest structure.

Mixed Ash Woodlands are amongst the richest habitats for wildlife in the uplands, notable for bright displays of flowers such as Bluebell, Wood Cranesbill and Wild Garlic. Some rare native trees are found in these woods, notably Large-leaved Lime and various Whitebeams. Deadwood, and Ancient and Veteran Trees, such as old Elm trees, provide habitat for rare beetles, flies and other invertebrates. Cavities in Ash trees are probably the most common roosting site for Noctule Bat. The type is also of value for the locally-rare White-letter Hairstreak Butterfly, which feeds on Elm and for bird species including Song Thrush and Willow Tit. This habitat is also valuable for Badger setts.

National Status

In the late 1980s the Nature Conservancy Council estimated the total extent of ancient semi-natural woodland of this type to be 40,000–50,000ha. It has declined in area by clearance, overgrazing and replanting with non-native species, by about 30–40% over the last 50 years. A crude estimate places the total area of Mixed Deciduous Woodland at 67,500ha.

Local Status

This type is well represented locally by 28 woods (or parts of woods) and nine of these are included in the Natural Heritage Site (NHS) register by being of high local value. All but two are west of the M1.

Legal Status

National forestry policies include a presumption against clearance of any broadleaved woodland for conversion to other land uses, and seek to maintain the special interest of ancient semi-natural woodland. Felling licences will normally be required if the woods are not managed under plans approved by the Forestry Authority. Management of semi-natural woodlands, including Mixed Deciduous Woodland, has to be in accordance with guidelines published by the Forestry Authority to receive felling licences or grant-aid.

The sites in Barnsley identified as Natural Heritage Sites have a presumption against planning permission for change of use. Individual or groups of trees may be protected by Tree Preservation Orders (TPOs) or if they fall within a Conservation Area.

Links with other Action Plans

SAP2 Bats
SAP20 Bluebell

Current Factors Causing Loss or Decline

- Overgrazing by Deer and Rabbit, leading to change in the woodland structure, ground flora impoverishment and difficulties for regeneration.
- Invasion by Sycamore, Beech and other species which are generally not native to these woods in most of Britain, leading to changes in the composition of the woods.
- Replacement of native trees with planted conifers was a major threat until the early 1980s. Large-scale felling and modification of the composition of the woodland by intensive planting of inappropriate broadleaved species may reduce the diversity of the woodland.

- Cessation of traditional management practices such as coppicing may, in some areas, lead to a reduction in structural diversity within the woods.
- Climate change, potentially resulting in changes in the vegetation communities.

Current Local Action

- A number of sites have been listed in the Council's Unitary Development Plan (UDP) as Natural Heritage Sites, recognizing them as locally important sites with a presumption against development. The South Yorkshire Forest project covers part of the borough and includes woods of this type.

Proposed Local Action

- Review Ancient Woodland Inventory.
- Identify ownership of woodlands.
- Carry out survey of known and potential White-letter Hairstreak sites.
- Survey and complete a register of all Ancient and Veteran Trees.
- Encourage landowners to leave deadwood within woods where appropriate.
- South Yorkshire Badger Group to continue to survey, record and monitor Badger setts.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Cuckoo, Lesser Spotted Woodpecker, Song Thrush, Tree Pipit, Dunnock, Willow Tit, Spotted Flycatcher, Lesser Redpoll and Bullfinch.
- Extract any past records, survey and monitor for Adder.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Ensure that Local Development Framework (LDF) policies are in place to protect native woodlands.
- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Lowland Mixed Deciduous Woodland habitat or instigate other appropriate measures for their protection.

BMBC Development Control Actions

- Consider the impact on native woodlands when assessing planning applications.
- Enforce Tree Preservation Orders (TPOs) as appropriate.
- Take opportunities through the planning system to restore or create Lowland Mixed Deciduous Woodland habitat.
- Explore possibilities of long-term management agreements.
- Ensure all planning applications and General Development Orders are adequately assessed in relation to their impact on Lowland Mixed Deciduous Woodland, that loss or damage is avoided and that opportunities for enhancement or creation are considered in relevant planning decisions.
- Encourage a review of Permitted Development Rights that currently allow potentially damaging recreational activities for 14 days per year – such as 4-wheel drive trials.
- Through planning control or other land use consultation processes, allow no further loss of areas of Lowland Mixed Deciduous Woodland and seek opportunities to enhance existing areas and create new areas through approved development.
- Encourage development control teams to use planning conditions and Section 106 agreements to secure improved woodland management related to new development.

BMBC Land Ownership and Management Actions

- Barnsley MBC countryside sites to be managed so as to contribute to Biodiversity Action Plan (BAP) targets on Lowland Mixed Deciduous Woodland.

Wet Woodland



Description

Wet Woodland occurs on poorly drained or seasonally wet soils, usually with Alder, Birch and Willow as the main tree species. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows. Wet Woods frequently occur in mosaic with other woodland types and with open habitats such as fens.

Wet Woodland combines elements of many other ecosystems and, as such, is important for many plants and animals. The high humidity favours Bryophyte growth. The number of invertebrates associated with Alder, Birch and Willow is very large and even quite small seepages may be valuable. There are often large amounts of deadwood, and its association with water, including log jams in streams, provides specialised habitats not found in Dry Woodland types. Wet Woodland provides cover and breeding sites for Otter, Water Vole, Noctule Bat and Willow Tit. While few rare plant species depend on Wet Woodland, there may be relict species from former open wetlands on the sites.

National Status

There are no precise figures for the total extent of Wet Woodland in the UK, but in the late 1980s the Nature Conservancy Council estimated the total extent of this type in ancient semi-natural woodland to be about 25,000–30,000ha. The area of recent Wet Woodland may be at least as large again. Thus, a crude estimate of the total Wet Woodland area in the UK is 50,000–70,000ha. In Yorkshire, surveys have found 343ha, but this is only a small proportion of the real extent.

Local Status

This type is well represented in the Barnsley area, particularly in streamside areas of Alder or Willow, of which there are 67 examples. There are 18 areas of carr woodland with Worsbrough Reservoir, Elsecar Reservoir and Gunthwaite Dam the best examples, ten examples of wet areas within woodlands and one of scattered Willows. Some 28 of these sites are included in the Natural Heritage Site (NHS) register.

Legal Status

Some Wet Woodlands that include habitats identified under Annex I of the EC Habitats Directive are protected.

National forestry policies include a presumption against the clearance of any broadleaved woodland for conversion to other land uses, and in particular seeks to maintain the ecological interest of ancient semi-natural woodland. Felling licences will normally be required if the woods are not managed under plans approved by the Forestry Authority. Management of semi-rural woodlands has to be in accordance with guidelines published by the Forestry Authority to receive felling licences or grant-aid.

The sites in Barnsley identified as Natural Heritage Sites have a presumption against planning permission for change of use. Individual groups of trees may be protected by Tree Preservation Orders (TPOs) or may be within a Conservation Area.

Links with other Action Plans

- SAP2 Bats
- SAP3 Water Vole
- SAP4 Otter
- SAP14 Great Crested Newt

Current Factors Causing Loss or Decline

- Clearance and conversion to other land uses, particularly in woods recently established on wetland sites.
- Cessation of management in formerly coppiced sites may encourage succession to drier woodland types.
- Lowering of water-tables through drainage or water abstraction, resulting in change to drier woodland types.
- Inappropriate grazing levels and poaching of soil, leading to a change in the woodland structure and ground flora impoverishment.
- River and flood control projects, preventing natural change.
- Poor water quality due to pollution.
- Invasion by non-native species such as Himalayan Balsam.

- Air pollution affecting Bryophyte and Lichen communities.
- Wet Woodland trees such as Alder are increasingly affected by diseases.
- Climate change, potentially resulting in changes in the vegetation.

Current Local Action

- A number of sites have been listed in the Council's Unitary Development Plan (UDP) as Natural Heritage Sites, recognizing them as locally important sites with a presumption against development.
- The South Yorkshire Forest Project includes a number of sites.
- Survey of Elsecar Reservoir Wet Woodland.

Proposed Local Action

- Provide an inventory of Wet Woodland sites and identify ownership.
- Identify new areas to create Wet Woodland.
- Encourage landowners to leave deadwood within woods where appropriate.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Lesser Spotted Woodpecker and Willow Tit.
- Extract any past records, survey and monitor for Grass Snake.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Ensure that Local Development Framework (LDF) policies are in place to protect native Wet Woodlands.
- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Wet Woodland habitat or instigate other appropriate measures for their protection.

BMBC Development Control Actions

- Consider the impact on native woodlands when assessing planning applications.
- Enforce Tree Preservation Orders (TPOs) as appropriate.
- Take opportunities through the planning system to restore or create Wet Woodlands. Explore possibilities of long-term management agreements.
- Ensure all planning applications and General Development Orders are adequately assessed in relation to their impact on Wet Woodland, that loss or damage is avoided and that opportunities for enhancement or creation are considered in relevant planning decisions.
- Encourage a review of Permitted Development Rights that currently allow potentially damaging recreational activities for 14 days per year – such as 4-wheel drive trials.
- Through planning control or other land use consultation processes, allow no further loss of areas of Wet Woodland and seek opportunities to enhance existing areas and create new areas through approved development.
- Encourage development control teams to use planning conditions and Section 106 agreements to secure improved Wet Woodland management related to new development.

BMBC Land Ownership and Management Actions

- Barnsley MBC countryside sites to be managed so as to contribute to Biodiversity Action Plan (BAP) Wet Woodland targets.

Wood Pasture and Parkland



Description

Lowland Wood Pasture and Parkland are the products of historic land management systems, and represent a landscape rather than a particular plant community. Usually they consist of large, mature trees (often pollards) in grazed grassland, heathland and/or woodland floras.

The sites are frequently of national historic, cultural and landscape importance.

This Action Plan includes ancient landscapes such as Medieval Forests and Wood Pastures as well as more modern Parklands, especially where these contain older, original trees. It also includes individual veteran trees away from a Parkland setting. Wood Pasture is a traditional landscape which is becoming increasingly rare. Many sites have been turned to arable use or been abandoned and developed as secondary woodland.

Around Barnsley there are a number of more modern formal Parkland estates. Older sites are primarily native trees, but more modern landscaped Parkland often contains many introduced species. A particularly important feature of these sites is veteran trees and deadwood. Additionally, these sites may have adjacent areas of old orchard. Parkland habitat is locally important for Badger, Grass Snake and Song Thrush.

National Status

There are no reliable statistics on the current extent of this type of habitat or on historical and current rates of loss or degradation. The current best available estimate is 10,000–20,000ha currently in a working condition nationally. This habitat is most common in southern Britain, but scattered examples occur throughout the country. Duncombe Park is a nationally significant site in North Yorkshire.

Local Status

There is little survey information available for this type, but there are a number of former Parkland estates at Cannon Hall, Banks Hall, Bretton Hall, Noblethorpe, Birthwaite, Falthwaite, Stainborough, Worsbrough, Tankersley, Wortley and Wharnccliffe.

Wharnccliffe Chase and Tankersley Park were created as Deer parks in the 13th and 14th centuries. Wortley Park was established in the 16th century. Stainborough is the only Grade I listed Parkland in the area.

Ancient and Veteran Trees are being recorded and three examples of 'very old trees' are known from Rockley, Wortley and Tankersley.

Legal Status

Designation under the EC Habitats Directive as a SAC will give protection to some sites. Felling licences from the Forestry Authority are normally required but veteran trees may be particularly at risk because a licence is not needed to fell them on Health and Safety grounds. The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Individual trees and groups are protected by Tree Preservation Orders (TPOs) at some Parkland sites in Barnsley, whilst other sites are covered by Conservation Area designation. Individual trees may also have some protection if they contain bat roosts or hole nesting birds. There is recognition of the value of the habitat and individual old trees in various development plans, and landscape designations (eg. by English Heritage). Only one site, Stainborough Park, is listed in the Natural Heritage Site (NHS) register.

Links with other Action Plans

SAP1	Hedgehog
SAP2	Bats
SAP7	Kestrel
SAP10	Barn Owl
SAP12	Tree Sparrow
SAP14	Great Crested Newt

Current Factors Causing Loss or Decline

- Lack of younger generations of trees is producing a skewed age structure, leading to breaks in continuity of deadwood habitat and loss of specialised dependent species.
- Neglect, and loss of expertise of traditional tree management techniques (eg. pollarding) leading to trees collapsing or being felled for safety reasons.
- Loss of veteran trees through disease (eg. Dutch Elm disease, Oak die-back), physiological stress, such as drought and storm damage, and competition for resources with surrounding younger trees.
- Removal of veteran trees and deadwood through perceptions of safety and tidiness where sites have high amenity use, forest hygiene, the supply of firewood or through vandalism.
- Damage to trees and roots from soil compaction and erosion caused by trampling by livestock and people car parking.

- Changes to ground-water levels leading to water stress and tree death, resulting from abstraction, drainage, neighbouring development, roads, prolonged drought and climate change.
- Isolation and fragmentation of the remaining Parklands and Wood Pasture sites in the landscape. (Many of the species dependent on old trees are unable to move between these sites due to poor powers of dispersal and the increasing distances they need to travel).

Current Local Action

- Particular survey and management work has been undertaken at Stainborough Castle, including restoration of grazing, protection of veteran trees and measures to encourage natural regeneration etc.
- Veteran Tree Survey at Wortley, Wentworth Castle and Cannon Hall.

Proposed Local Action

- Research historical data to identify any surviving remnants of original Parkland.
- Survey and complete a register of all Ancient and Veteran Trees.
- Use the Wentworth Castle Project as a good example to promote the potential for restoring Parkland for wildlife.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Encourage landowners to leave deadwood within woods where appropriate.
- Identify any areas of remnant orchards within the Parklands in Barnsley.
- South Yorkshire Badger Group to continue to survey, record and monitor Badger setts.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Lesser Spotted Woodpecker, Song Thrush, Hawfinch and Spotted Flycatcher.
- Survey and monitor all known past Grass Snake, Adder and Common Lizard sites and potential new locations and advise appropriate management.

BMBC Planning Policy Actions

- Take opportunities for creating corridors to aid in the connection and de-fragmentation of important sites/individual trees.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

- Through planning control and conservation area/historic landscape designations, ensure no further loss of Wood Pasture and Parkland to development or other land use change, and seek opportunities to create new areas through approved developments.
- Ensure that Wood Pasture and Parkland protection, creation and management opportunities are promoted through appropriate regional and local planning policy instruments.
- Seek further Tree Preservation Orders (TPOs) under suitable circumstances for ancient trees that are not yet protected.
- Declare Local Nature Reserves (LNR) on relevant areas of Wood Pasture and Parkland or instigate other appropriate measures for their management and protection.
- Include habitat and species protection policies in development plans and/or supplementary guidance.

BMBC Development Control Actions

- Review existing TPOs and consider the desirability of applying further orders to Wood Pasture and Parkland habitats.
- Encourage a review of Permitted Development Rights that currently allow potentially damaging recreational activities for 14 days per year – such as 4-wheel drive trials.

BMBC Land Ownership and Management Actions

- Barnsley MBC to look for opportunities to alter countryside sites such as Cannon Hall, so as to contribute to Biodiversity Action Plan (BAP) Wood Pasture and Parkland.

Hedgerows



Description

Ancient Hedgerows are those which were in existence before the Enclosure Acts (1720 to 1840). They contain many Ancient and Veteran Trees and associated deadwood. Species-rich Hedgerows in northern England contain four or more native woody species on average in a 30m length. Hedges which contain a rich basal flora of herbaceous plants are also included. The thin straight Hawthorn hedges of the later Parliamentary Enclosures, and hedges of Beech, Privet, Yew or non-native trees, are excluded. Recently planted Species-rich Hedges are included.

Hedges are important not just for biodiversity, but also for farming, landscape, cultural and archaeological reasons. Hedgerows are important habitats in their own right. They are a primary habitat for at least 47 extant species of conservation concern in the UK, including 13 globally-threatened or rapidly declining ones, more than for most other key habitats. They are especially important for Butterflies and Moths, farmland Birds, Bats, Dormice, Reptiles and Amphibians.

They also act as wildlife corridors for many species, allowing movement between other habitats. In the Barnsley area, the habitat is particularly important for Badger, Song Thrush, Corn Bunting, Linnet and White-letter Hairstreak.

National Status

In 1993, it was estimated that about 329,000km of Hedgerow remained in England, but with a continued overall net rate of loss due to removal and neglect of about 5% per annum. The proportion of this which is ancient and/or species-rich is estimated at 42%. Hedgerows adjacent to roads, green lanes, tracks and wooded ground tend to be particularly species-rich. Since 1945, there has been a drastic loss of Hedgerows through removal and neglect throughout the UK, which continues even now. Between 1984 and 1990, the net loss of Hedgerow length in England was estimated at 21%. Since 1990, loss through neglect has become increasingly important.

Local Status

Hedgerow neglect is a bigger problem in Barnsley than outright loss which, for agricultural purposes, has not been significant. The number of applications under the new Hedgerow Regulations is nine after three years. Loss of Hedgerows to development is undoubtedly more significant although there are no precise records. A number of important Hedgerows were listed in the 1980 Phase I Habitat Survey of the borough; 13 species-rich old lanes, six species-rich Hedgerows and two Hedgerow banks. These are widely distributed. Records exist for 21 Hedgerows although only one – Black Lane, Tankersley – is listed in the Natural Heritage Site (NHS) register.

Legal Status

The Hedgerow Regulations 1997 introduced powers to protect important Hedgerows in Britain. Landowners and managers are required to consult Local Authorities before Hedgerows can be removed. Article 10 of the EC Habitats Directive requires member states to encourage the management of hedges (and other linear features) in their land use planning and development policies and, in particular, with a view to improving ecological coherence of the Natura 2000 network. The Conservation (Natural Habitats, etc.) Regulations, 1994 recognise that such linear features are essential for the migration, dispersal and genetic exchange of wild species. Planning Policy Guidance Note (PPG 9 – Nature Conservation, 1994) further encourages the development of policies for the management of Hedgerows.

Links with other Action Plans

SAP1	Hedgehog	SAP10	Barn Owl
SAP2	Bats	SAP12	Tree Sparrow
SAP5	Grey Partridge	SAP14	Great Crested Newt
SAP7	Kestrel	SAP20	Bluebell

Current Factors Causing Loss or Decline

- Neglect (no cutting or laying) leading to hedgerows changing into lines of trees and the development of gaps. This reflects modern high labour costs and loss of traditional skills.
- Too frequent and badly-timed cutting leading to poor habitat conditions, development of gaps and probable species changes.
- Loss of Hedgerow trees through senescence and felling, without encouraging replacements.
- Use of herbicides, pesticides and fertilisers right up to the bases of Hedgerows, leading to nutrient enrichment and a decline in species diversity.
- Increased stocking rates, particularly of sheep, leading to Hedgerow damage and the need to fence fields. The presence of fences

reduces the agricultural necessity for hedge maintenance and so hastens their decline. The modern practice of ‘ranching’ (placing netting around several fields to form a grazing block) also contributes to the deterioration of internal hedges.

- Removal for agricultural and development purposes.

Current Local Action

- Advocacy on good Hedgerow management eg. by FWAG; advocacy and support for same via agri-environmental grant awarding agencies eg. DEFRA.
- Administration by Barnsley MBC of Hedgerow Regulations.
- Survey of significant ancient Hedgerows in Barnsley.

Proposed Local Action

- Survey and complete a register of all Ancient and Veteran Trees.
- Survey and monitor all known White-letter Hairstreak sites and potential new locations and undertake appropriate management.
- Secure favourable management practice for all ancient and species-rich Hedgerows identified from the recent Hedgerow Survey.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Encourage landowners to leave deadwood within Hedgerows where appropriate.
- South Yorkshire Badger Group to continue to survey, record and monitor Badger setts.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Cuckoo, Song Thrush, Dunnock, Bullfinch, Linnets, Yellowhammer, and Corn Bunting.

BMBC Planning Policy Actions

- Ensure that appropriate Hedgerows are protected through the Hedgerow Regulations.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Maximise the opportunities offered by Unitary Development Plan (UDP) policies for protection, enhancement and management of Hedgerows not covered by Hedgerow regulations; develop policies for Hedgerow protection and management.
- Seek the inclusion of policies within the Local Development Framework (LDF) that ensure new development does not have an adverse effect on the nature conservation value of ancient and/or species-rich Hedgerows.
- Ensure that development plans identify sites of nature conservation importance with respect to ancient and/or species-rich Hedgerows.
- Ensure that suitable hedgerows are identified as Natural Heritage Sites (NHS).
- Use Tree Preservation Orders (TPOs) to protect threatened Hedgerow trees.

Arable Field Margins



Description

'Arable Field Margin' is a general term referring to strips of land lying between crops and the field boundary, and extending for a limited distance into the crop, which are deliberately managed to benefit key farmland species. They are excluded from crop spraying and other similar agricultural activities.

Arable Field Margins are important for the provision of nesting and feeding sites for game birds and some passerines, many species of Butterflies, Grasshoppers, and plant bugs. Some 2,000 species of invertebrate are commonly found in Arable Field Margins and boundaries. Hedgebanks support invertebrates of economic, ecological and aesthetic value. Even more dependent on Arable Field Margins are the rare arable flowers. Arable wildflowers are of conservation concern because of enormous national declines in their distribution and abundance. Overall, some 300 species of plants can occur along arable field boundaries and hedgerows.

Arable Field Margins are important for Brown Hare, Barn Owl, Kestrel, Harvest Mouse, Corn Bunting and Linnet.

National Status

Cereals account for 63% of the total area of arable land in England. The margins of cereal fields can be managed in ways which benefit wildlife, without having serious detrimental effects on the remaining cropped area. Estimating average national field size to be 12ha suggests that there are about 400,000km of cereal field edge in the UK. If all such boundaries included a 6m managed margin, some 200,000ha of land would be brought into sensitive management.

Local Status

There is no information available on the amount of take-up in this area, although a number of farmers do include headland strips for wildlife as a result of DEFRA initiatives, farm plans etc.

Legal Status

Under the Food and Environment Protection Act, 1985 it is illegal to spray pesticides into hedge bases, unless there is a specific label recommendation or a specific off-label approval.

Under the current procedures for pesticide registration and review, some compounds have statutory label exemptions preventing their use on the outermost 6m wide strips of crops. These restrictions are designed to prevent overspraying of water courses and protect non-cropped habitats.

Links with other Action Plans

SAP1	Hedgehog
SAP5	Grey Partridge
SAP7	Kestrel
SAP10	Barn Owl
SAP12	Tree Sparrow

Current Factors Causing Loss or Decline

- Intensification of cereal production, including the use of herbicides to ensure a weed-free monoculture, and summer use of insecticides.
- The reduction in rotation of cereal crops with other land covers (including grass leys and fallows).
- The reduction in the undersown area associated with the shift to winter cropping. Undersown cereal crops are important for overwintering Sawflies.
- The geographical retreat of cereal growing from many northern and western areas means that this habitat no longer occurs in large parts of the UK.
- Grassy field margins are retained by some farmers to act as buffers to cereal fields, but management is usually minimal.

Current Local Action

- A number of farmers include headland strips for wildlife as a result of DEFRA and FWAG initiatives, farm plans etc.

Proposed Local Action

- In partnership with DEFRA review the extent of Arable Field Margin management in Barnsley and encourage wider participation from the farming community.
- Continue to monitor the population of Brown Hare and encourage appropriate management.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Yellowhammer, Reed Bunting and Corn Bunting.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

Floodplain Grazing Marsh



Description

These wet grasslands are periodically inundated pastures or meadows in river floodplain areas, usually criss-crossed by ditches that maintain a high water level. Most sites also have an important role in flood defence.

The combination of grasslands and wetland margins or ditches promotes a richness of plants and invertebrates. They are generally grazed or cut for hay or silage.

Grazing Marshes are particularly important for the number of breeding waders such as Snipe, and they also support Lapwing and important populations of wintering Wigeon. The sites are also important for Eels and Grass Snake and can contain a rich mosaic of plant communities, including some regionally-scarce species such as Pepper Saxifrage and Great Burnet.

National Status

The exact extent of Grazing Marsh in England was estimated in 1994 at 200,000ha. However, only a small proportion (5,000ha) of this grassland is semi-natural, supporting a high diversity of native plant species.

Losses in the whole of the UK have been significant in the last 60 years. Some of the last remaining unimproved grasslands are highly sensitive to increased nutrient loadings. Unless conservation measures to retain this habitat type are in place, with particular emphasis on the maintenance of water levels, flooding regimes and appropriate grazing or cutting, most sites will deteriorate.

Local Status

There are a number of important sites of this type, all found in the Dearne Valley, totalling 13 sites. Many of them have some sort of protection as nature reserves and many are owned by the Environment Agency and managed for flood storage; some of these have been converted to arable.

The RSPB do manage some of these important sites in the Dearne Valley. Six are listed as Natural Heritage Sites (NHS) – Wilthorpe Marsh, Carlton Marsh, Edderthorpe Ings, Broomhill Flash, Wombwell Ings and RSPB Old Moor which includes the site formerly known as Wath Ings.

Legal Status

Sites included in the Unitary Development Plan (UDP) as NHS sites have a presumption against development, but have no protection against operations which do not require planning consent. Carlton Marsh is a Local Nature Reserve (LNR) and has a measure of statutory protection.

Many of the sites fall within statutory washland designation and are owned by the Environment Agency.

In carrying out their functions, the Environment Agency, Water Companies, Internal Drainage Boards and Local Authorities in England and Wales have a statutory duty to further conservation where consistent with purposes of enactments relating to their functions. These are set out in the Water Resources Act, 1991, and the Land Drainage Act, 1991. The DEFRA Environmental Impact Assessment (EIA) Regulations may apply.

Links with other Action Plans

SAP3	Water Vole
SAP8	Little Ringed Plover
SAP9	Lapwing
SAP10	Barn Owl
SAP11	Skylark
SAP14	Great Crested Newt

Current Factors Causing Loss or Decline

- Ecologically insensitive flood defence works constructed in the past.
- Agricultural improvements, including land drainage, use of herbicides and fertiliser.
- Neglect in the form of a decline in traditional management i.e. cutting and grazing.
- Enrichment caused by overstocking with animals and supplementary feeding.
- Loss of sites to development and highway improvement.
- Ground water abstraction causing site to dry out.
- Pollution of ground water or surface water.
- Mineral extraction causing loss of sites and alteration to ground water levels.

Current Local Action

- Five of the sites are currently managed as nature reserves – Carlton Marsh, Park Hill Brickworks, Doveside, Wombwell Ings and Wath Ings – although ideal management practices are not currently in place on any of these.
- Edderthorpe Ings is partially secure but suffering from split ownership. Wilthorpe Marsh has deteriorated seriously and has been threatened with opencast coal working.
- RSPB Old Moor includes new and modified areas of this type.
- A report has been produced by the Environment Agency examining the feasibility of restoring the nature conservation value to washland areas in the Dearne Valley.
- One site, Broomhill Flash, has been marketed by the owners and attempts to secure its future as a nature reserve are not certain.
- FRCA/DEFRA have identified the area around Wombwell Ings as the key area of likely habitat. This is, perhaps, the most important site in Barnsley.

Proposed Local Action

- Collate all the species records available on Wilthorpe Marsh and produce a fully-costed management plan for the site.
- Create new areas of Grazing Marsh on suitable sites in the Dearne Valley in partnership with EA and RSPB, including any that may occur from new flood defence works.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Survey Floodplain Grazing Marsh for the presence of Eel and Grass Snake and advise appropriate management.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Little Ringed Plover, Lapwing, Skylark, Yellow Wagtail, Grasshopper Warbler and Reed Bunting.

BMBC Planning Policy Actions

- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Land Ownership and Management Actions

- Seek to formalise grazing and subsidies on Carlton Marsh Local Nature Reserve (LNR) Floodplain Grazing Marsh habitat.

Lowland Meadows



Description

Lowland Meadows are taken to include most forms of unimproved neutral grassland in lowland areas. The Action Plan is not restricted to grasslands cut for hay, but also takes into account unimproved neutral pastures where livestock grazing is the main land use.

On many farms in different parts of the UK, use of particular fields for grazing pasture and hay cropping changes over time, but the characteristic plant community may persist with subtle changes in floristic composition. The diverse flora attract Bumble Bee and Brown Hare.

In non-agricultural settings, such grasslands are less frequent but additional examples may be found in recreational sites, churchyards, roadside verges and a variety of other localities.

National Status

It is estimated that between 1930 and 1984 in lowland England and Wales, semi-natural grassland had declined by 97% to an estimated 200,000ha.

Losses have continued during the 1980s and 1990s, and have been recorded at 2–10% per annum in some parts of England, due almost totally to changing agricultural management. Recent estimates suggest that only 5,000–10,000ha of *Cynosurus-Centaurea* grasslands remain in England and Wales.

Unimproved seasonally-flooded grasslands are even rarer. *Alopecurus-Sanguisorba* flood meadows cover less than 1,500ha in scattered sites in the River Ouse catchment. *Cynosaurus-Caltha* flood pasture probably covers less than 1,000ha in England and Wales.

Local Status

Some 76 sites of neutral grassland are listed in the area of which only one – Pye Flatts at Silkstone – is notified as an SSSI and only four others are listed in the Natural Heritage Site (NHS) register.

Legal Status

One site, Pye Flatts at Silkstone, has been notified as an SSSI and therefore has statutory protection.

Sites included in the Unitary Development Plan (UDP) as NHS sites have a presumption against development but have no protection against operations which do not require planning consent.

Unimproved neutral grasslands are also included in a variety of recent UK agri-environment schemes including ESAs and the DEFRA Stewardship Schemes.

The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Links with other Action Plans

SAP1	Hedgehog
SAP2	Bats
SAP5	Grey Partridge
SAP7	Kestrel
SAP9	Lapwing
SAP10	Barn Owl
SAP11	Skylark
SAP18	Glow Worm

Current Factors Causing Loss or Decline

- Agricultural improvement through drainage, ploughing, re-seeding, fertiliser treatment, slurry application, conversion to arable and a shift from hay-making to silage production.
- Decline in the perceived agricultural value of species-rich pasture and hay in farming regimes.
- Abandonment leading to rank over-growth, and bracken and scrub encroachment.
- Supplementary stock feeding, associated with increased stocking levels, which can lead to eutrophication as well as localised poaching.
- Application of herbicides and other pesticides.
- Atmospheric pollution and climate change, the influence of which is not fully assessed.
- Reduced inundation frequency and duration, in water meadows and floodplain grasslands associated with abandoned irrigation schemes. Water tables have also been lowered as a result of land drainage, flood alleviation engineering, surface and ground water abstraction, floodplain gravel extraction and other activities.
- Floristic impoverishment due to heavy grazing pressure and changes in stock species and breeds.

Current Local Action

- Pye Flatts Meadow SSSI has a favourable management regime.
- Harvested seed from this site has been used to create a new meadow at RSPB Old Moor.

Proposed Local Action

- Create new areas of Lowland Meadow on suitable sites in partnership with various landowners.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Continue to monitor the population of Brown Hare and encourage appropriate management.
- Encourage the management of meadows to benefit Bumble Bees.
- Extract past records and survey for Wall Butterfly.

BMBC Planning Policy Actions

- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Lowland Meadow habitat, or instigate other appropriate measures for their protection.
- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Development Control Actions

- Through planning control or other land use consultation processes, allow no further loss of areas of Lowland Meadow and seek opportunities to enhance existing areas and create new areas through approved development.

Lowland Dry Acidic Grassland



Description

Lowland Dry Acidic Grassland typically occurs on nutrient-poor, generally free-draining soils with pH ranging from 4 to 5.5 and overlying acid rock or superficial deposits such as sands and gravels. The general definition of this type of grassland is that it occurs below 300m and can be enclosed or unenclosed managed land, including Parkland, and fringing on early-stage Heathland. The habitat is characterised by a range of plants such as Heath Bedstraw, Sheep's Sorrel, Tormentil, Harebell, Sheep's Fescue and Common Bent. Many invertebrates that occur in Acid Grasslands are specialist species and are not found in other types of grassland. The habitat is important for Bumble Bee and Brown Hare.

National Status

As with other lowland semi-natural grassland types, Acid Grassland has undergone substantial decline in the 20th century, due mainly to agricultural intensification.

It is because of the associated plants and invertebrates that this habitat is nationally important in the modern landscape.

Local Status

Data exists from the original 1980 Barnsley MBC Phase I Habitat Survey, which included 27 named sites, and from this baseline information, another survey was conducted in 1992. This highlighted four main sites – Mag Wood Meadow, Hood Green Pastures, Wilthorpe Marsh and Carlton Marsh, which were then awarded the local Natural Heritage Site (NHS) classification.

Many small sites such as field corners and banking occur throughout the borough as remnants of this habitat.

Legal Status

Sites included in the Unitary Development Plan (UDP) as NHS sites have a presumption against development, but have no protection against operations which do not require planning consent.

Several plant and invertebrate species of lowland grassland are protected under the Schedules of the Wildlife and Countryside Act, 1981.

The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Links with other Action Plans

SAP1	Hedgehog
SAP2	Bats
SAP5	Grey Partridge
SAP7	Kestrel
SAP10	Barn Owl
SAP11	Skylark

Current Factors Causing Loss or Decline

- Agricultural intensification by re-seeding, ploughing for arable crops, use of fertilisers and herbicides.
- General land management neglect allowing rank overgrowth, bracken and scrub encroachment.
- Over-grazing in some local areas.
- Afforestation with mainly conifer causing further habitat loss.

Current Local Action

- Barnsley MBC Phase I Habitat Survey in 1980 and the 1992 survey, resulting in the NHS designation of the four named sites. There will be other small remnants of this habitat classification that local people are aware of but have not been recorded. These small remnants, although isolated, are still important in the wildlife they retain.
- Three of the four main sites are not managed effectively.

Proposed Local Action

- Create new areas of Lowland Dry Acidic Grassland on suitable sites in partnership with various landowners.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Continue to monitor the population of Brown Hare and encourage appropriate management.
- Encourage the management of Lowland Dry Acidic Grassland to benefit Bumble Bees.
- Extract past records and survey for Wall Butterfly.

BMBC Planning Policy Actions

- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Lowland Dry Acidic Grassland habitat, or instigate other appropriate measures for their protection.
- Include habitat and species protection policies in development plans and/or supplementary guidance.

- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Development Control Actions

- Through planning control or other land use consultation processes, allow no further loss of areas of Lowland Dry Acidic Grassland and seek opportunities to enhance existing areas and create new areas through approved development.

BMBC Land Ownership and Management Actions

- Maintain Elsecar Reservoir Local Nature Reserve (LNR) Lowland Dry Acidic Grassland zones to prevent encroachment of scrub.

Lowland Heathland



Description

Lowland Heathland is generally found below 300m on poor nutrient, acid soil with a pH of 4 to 5.5. The habitat is characterised by ericaceous plants such as Heather and Bell Heather with scattered trees and shrubs of mainly Silver Birch, Oak and Gorse. Parts of the habitat may retain damp areas and small pools that are important for associated plants such as Cottongrass and also for Dragonflies, Green Hairstreak, Bumble Bee, Linnet and Brown Hare and a wide range of invertebrates. Often this mix of Dry Heath, Wet Heath and occasional pools create a rich and diverse habitat which supports other important plant species, including Lichens and Mosses.

National Status

This is an internationally rare and threatened habitat with the UK holding 20% of the world's total. There has been a 75% decline of Lowland Heathland cover in Britain since 1800. Various sites in this country hold some very rare species of plants and invertebrates.

Local Status

Records exist in Barnsley of some 19 examples, some of which are quite small and isolated and may not be original, but rather recent heather colonisation. The historical and most species-rich site in Barnsley is Gypsy Marsh near Broomhill, which is owned by Barnsley MBC, designated as a Local Nature Reserve, and managed by the RSPB.

Legal Status

Sites included in the Unitary Development Plan (UDP) as Natural Heritage Sites (NHS) have a presumption against development, but have no protection against operations which do not require planning consent.

The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Links with other Action Plans

SAP1	Hedgehog
SAP2	Bats
SAP7	Kestrel

Current Factors Causing Loss or Decline

- In the past Lowland Heathland was lost to agriculture, forestry, mineral extraction and development.
- Uncontrolled burning in some areas has caused habitat destruction and allowed other species to encroach.
- Nutrient enrichment from surrounding land has had an effect on bordering vegetation.
- Possible threat from the Heather Beetle (lowland sites are particularly vulnerable).

Current Local Action

- Gypsy Marsh, owned by Barnsley MBC, is managed as a Local Nature Reserve by the RSPB.
- Recording on site by Barnsley Naturalist Society, Barnsley Bird Study Group, RSPB and other interested individuals.
- Other sites may be recorded by the same groups and individuals.

Proposed Local Action

- Create new areas of Lowland Heathland on suitable sites in partnership with the Coalfields Heathland Project and various landowners.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Continue to monitor the population of Brown Hare and encourage appropriate management.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Linnets.
- Encourage the management of Lowland Heathland to benefit Bumble Bees.
- Extract any past records, survey and monitor for Adder.

BMBC Planning Policy Actions

- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Lowland Heathland habitat, or instigate other appropriate measures for their protection.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Development Control Actions

- Through planning control or other land use consultation processes, allow no further loss of areas of Lowland Heathland habitat and seek opportunities to enhance existing areas and create new areas through approved development.

Upland Heathland



Description

Upland Heathlands are generally found above 300m, where rainfall is in excess of 1,000mm per year. They are areas with underlying peat, formed many thousands of years ago, dominated by shrub plants such as Heather, Bell Heather, Bilberry, Crowberry and Cottongrass in the shallow peat pools.

Due to altitude and diverse weather conditions, unique communities of flora and fauna are found in the habitat. Upland Heathlands are home, for whole or part of the year, to Mountain Hare, Red Grouse, Merlin, Golden Plover, Curlew, Dunlin, Ring Ouzel, Twite, Green Hairstreak Butterfly, Emperor Moth and Viviparous Lizard. The moorland streams associated with the fringes of the Upland Heathland can be important for Water Vole. Modern management for this habitat mainly favours Red Grouse with strip burning or flailing, but there are benefits for other upland species. Cloughs are mainly unmanaged and these zones provide a stable environment.

National Status

Dwarf shrub heaths are derived from upland woodlands and are almost entirely confined to the western seaboard of Europe. The UK holds a high percentage of the world total and is therefore responsible for retaining this unique habitat.

Most of the habitat lies within National Park boundaries in England and Wales.

Local Status

Most of the Upland Heathland is within the Peak District National Park in Barnsley, and there are a total of 14 sites identified.

It is an important and distinct habitat within the borough, existing as remnants of very old landscapes containing good assemblages of species.

Legal Status

The area within the Peak District National Park is designated as a Site of Special Scientific Interest (SSSI). This area is controlled by the Peak District National Park Authority as Planning Authority.

Some of the area within the Peak District National Park is classified as an Environmentally Sensitive Area (ESA).

Sites in the Unitary Development Plan (UDP) as Natural Heritage Sites (NHS) have a presumption against development but have no protection against operations which do not require planning consent.

The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Links with other Action Plans

SAP3 Water Vole
SAP7 Kestrel
SAPI3 Twite

Current Factors Causing Loss or Decline

- Inappropriate management, such as over-grazing, due to large stocks of sheep on the moor as a result of EU agricultural policy.
- Heather burning may affect the character of the habitat and its wildlife.
- Bracken invasion in some areas.
- Climate change and its effects, such as infestation of Heather Beetle due to mild winters and wet springs.

Current Local Action

- Ongoing Annual Breeding Bird Survey (BBS) of selected areas of Langsett and Ladycross Moor commissioned by BTO, RSPB and DEFRA.
- Survey of some areas by Barnsley Bird Study Group and other interested individuals.
- Water Vole survey of some moorland fringe streams

Proposed Local Action

- Provide an inventory of Upland Heathland sites, their status and ownership.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Encourage the appropriate management of Upland Heathland, including works beneficial to Bumble Bees.
- Survey and monitor all known Green Hairstreak sites.
- Extract past records, survey and monitor Mountain Hare.
- Extract any past records, survey and monitor for Adder and Common Lizard.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Red Grouse, Curlew, Nightjar, Cuckoo, and Ring Ouzel and Twite.

BMBC Planning Policy Actions

- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Land Ownership and Management Actions

- Work with Coalfield Heathland Project to identify and develop new western gorse Upland Heathland sites on Barnsley MBC owned land.

Blanket Bog



Description

Blanket Bog is a special habitat that has developed where cool, wet climatic conditions have favoured waterlogging of the ground and accumulation of plant remains as deep peat.

The quality of the habitat has suffered significantly, with a decline in species diversity as a result of air pollution, over-grazing, inappropriate or accidental burning, peat extraction and past drainage. Wildfires and air pollution in particular have contributed to the poor condition. Haretail Cottongrass is often overwhelmingly dominant but the bog-building *Sphagnum* mosses are scarce. At their worst, these impacts have led to substantial areas of eroding moor and this can be seen for example on the Langsett Moors. It is worth noting, however, that in part some erosion may be a natural process, reflecting the great age (9,000 years) of the Peak District peats.

Scarce plants of the bogs include Cloudberry and Labrador Tea, and the flushes on the margins of the bogs can be botanically richer, supporting Bog Asphodel, Sundew and a variety of Sedges. Invertebrate interest is less well understood but includes a large population of Craneflies, at least locally, which are an important food source for moorland birds. Together with the lower and intimately linked heather moorland, the Blanket Bogs support a breeding bird community of international importance. The habitat is of great importance for breeding Golden Plover, whilst Merlin and Short-eared Owl can also very rarely be found. Other characteristic birds include Red Grouse, Curlew, Snipe and Dunlin, with the latter breeding around the bog pools. Mountain Hare also frequent Blanket Bog vegetation.

National Status

Blanket Bogs are part of a UK resource which is globally restricted and hence of international importance for nature conservation. It is one of the most extensive semi-natural habitats in the UK, supporting around 10–15% of the global resource. There is no comprehensive national data set on trends in the extent of Blanket Bog across the UK. However, serious declines, perhaps 27% between the 1940s and 1980s, have occurred in Scotland, principally due to afforestation.

Local Status

Blanket Bogs or mires in the Barnsley district are mostly (but not entirely) located within the Peak District National Park to the west of the borough.

Legal Status

All of the Blanket Bog in the Peak District is protected within the Dark Peak SSSI, which also forms part of the South Pennine Moors SPA, designated in recognition of its populations of upland breeding birds – Golden Plover, Merlin and Short-eared Owl. All the areas of Blanket Bog and transition mire are also included within the South Pennine Moors proposed SAC. All the Blanket Bog within and outside the Peak District National Park is recognised as a Natural Heritage Site.

Current Factors Causing Loss or Decline

- Inappropriate grazing management locally, eg. overgrazing and a decline in hefting as a result of off-wintering.
- Locally inappropriate burning regimes.
- Drainage leading to drying out of Blanket Bog.
- Peat-cutting (possibly beneficial on a small scale).
- Atmospheric pollution depleting the lower plant flora (sulphur dioxide levels have decreased, but nitrous oxides have increased).
- Climate change.
- Fire.
- Natural erosion.
- Recreational disturbance leading to localised vegetation damage and possible disturbance to breeding birds.

Current Local Action

- Work is being undertaken by the Peak District National Park and Natural England, working with farmers and landowners to restore the designated sites into favourable condition using agri-environment schemes (Environmentally Sensitive Area, Countryside Stewardship Scheme, High Level Stewardship). Some of this is in partnership with Yorkshire Water, who are a major landowner.
- A Local Access Forum has been established for the Peak District. This will seek to encourage opportunities for responsible enjoyment of the countryside (including open country) whilst reducing conflict.
- The Blanket Bog has been surveyed for the *South Yorkshire Plant Atlas* project, and for the *Barnsley Breeding Bird Survey*. Bird monitoring also continues annually.

Proposed Local Action

- Maintain the current extent of the resource. Define favourable condition, locate any examples and ensure all zones are in a management regime that will maintain favourable status. Lead partner: Natural England
- Introduce/maintain management regimes to improve condition to ensure it is in or approaching favourable condition. Lead partner: Natural England
- Introduce/maintain management regimes to improve, and if possible subsequently maintain in favourable condition. Lead partner: Natural England
- Gather information on Blanket Bog habitats not covered by statutory designations outside the Peak District National Park and develop conservation plans in conjunction with owners if appropriate.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Curlew, Dunlin and Golden Plover.
- Extract past records, survey and monitor Mountain Hare.
- Extract any past records, survey and monitor for Common Lizard.

Purple Moor Grass and Rush Pasture



Description

Rush Pastures occur on poorly drained, usually acidic soils in areas of high rainfall. They are found typically on undulating plateaux and hillsides, as well as in stream and river valleys.

Vegetation is often a mosaic and may take the form of scattered areas in among other habitats.

Many Rush Pasture areas are within enclosed land and are grazed by cattle or sheep, but very little management exists. Environmental Stewardship Schemes provide for appropriate management in creating both a dense and open sward of rush to favour breeding wader species, as well as controlling vigorous rush growth.

Typical vegetation types are dominated by various Rush species, some Sedge species, Marsh Thistle, Meadow Buttercup, Spearwort and occasionally *Sphagnum* and other Mosses. Being wet, and with some cover, they are important for upland wader species such as Curlew, Lapwing and Snipe.

National Status

The UK has around 56,000ha of these pastures, probably more than in the rest of Europe, with the exception of Eire. England has about 5,400ha mainly in the south west of the country such as the Somerset Levels, but there are important areas within Yorkshire.

Local Status

The areas within Barnsley are possibly not classified as pure Rush Pastures, but are fragmented remnants and often a hybrid of other related habitats.

However, this may make this habitat even more important for conserving in the area, especially due to key associated species such as Brown Hare, Curlew, Snipe, Lapwing and Skylark.

Pockets of this habitat occur in Barnsley across the broad swathe of land between Ingbirchworth, Crow Edge and Langsett.

Legal Status

Types of *Molinia* vegetation in the UK are recognised as examples of *Molinia* meadows, which are listed in Annex I of the EC Habitats Directive.

Parts of this habitat may fall within the Environmentally Sensitive Area (ESA). Sites included in the Unitary Development Plan (UDP) as Natural Heritage Sites (NHS) have a presumption against development but have no protection against operations which do not require planning consent.

The DEFRA Environmental Impact Assessment (EIA) Regulations may apply.

Links with other Action Plans

SAP9 Lapwing
SAPI1 Skylark
SAPI3 Twite

Current Factors Causing Loss or Decline

- The habitat is threatened by agricultural improvements such as drainage, re-seeding and nutrient enrichment.
- Inappropriate management such as over-grazing, compaction due to overstocking and heavy implement use and, through over-grazing, allowing other plant species and scrub development to take over.
- Afforestation and mineral working have destroyed some habitats.

Current Local Action

- Some local holdings may be under an agricultural scheme which includes appropriate Rush Pasture management.

Proposed Local Action

- Continue to monitor the population of Brown Hare and encourage appropriate management.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Curlew and Reed Bunting.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.

Reedbeds



Description

Reedbeds are wetlands dominated by stands of the common reed *Phragmites australis*, wherein the water table is at or above ground level for most of the year. They tend to incorporate areas of open water and ditches, small areas of wet grassland and carr woodland may be associated with them.

Reedbeds are amongst the most important habitats for birds in the UK. They support a distinctive breeding bird assemblage including nationally rare Red Data Birds: Bittern, Marsh Harrier, Bearded Tit and Reed Bunting. They provide roosting sites for Corn Bunting, feeding sites for migratory species like Swallow, and are used as roost sites for several raptor species in winter. Reedbeds are also important areas for Otter. Five Great Britain Red Data Book invertebrates are also closely associated with Reedbeds including the locally-rare Fen Wainscot Moth.

The Reedbed fringe areas are also important for Harvest Mouse and Grass Snake.

National Status

There are about 5,000ha of Reedbeds in the UK, but of the 900 or so sites contributing to this total only about 50 are greater than 20ha and these make a large contribution to the total.

Local Status

There are a number of small Reedbeds, either in river valley situations or which have developed in former colliery lagoons. Fairly substantial examples (less than 1ha) of the latter can be found at Grimethorpe, Rabbit Ings and Royston Canal. The largest Reedbed in the area is at RSPB Old Moor, which includes the newly-created Reedbed at Bolton Ings. Reedbed areas are also to be found at Worsbrough Reservoir and Carlton Marsh Nature Reserve.

Legal Status

Most of the more significant Reedbeds nationally are notified as SSSI/ASSI and many are notified as Wetlands of International Importance under the Ramsar Convention and as SPAs under the EC Birds Directive.

The DEFRA Ecological Impact Assessment (EclA) Regulations may apply.

Links with other Action Plans

SAP2	Bats
SAP3	Water Vole
SAP4	Otter
SAP6	Bittern

Current Factors Causing Loss or Decline

- Lack of, or inappropriate management of, existing Reedbeds leading to drying, scrub encroachment and succession to woodland.
- Pollution of freshwater supplies to the Reedbed: siltation may lead to drying; toxic chemicals may lead to loss of fish and amphibian prey for key species; accumulation of poisons in the food chain and eutrophication may cause reed death.
- Threat of mineral extraction on sites which may be drained as a consequence.

Current Local Action

- The scheme at RSPB Old Moor includes 12ha of Reedbeds. Engineering works are complete and reeds established in some areas. Reed planting is ongoing.
- Other sites, owned by Barnsley MBC, are Park Hill Brickworks which has both a small Reedbed and a large Reedbed of about 5–8ha. The largest established Reedbed at Worsbrough Reservoir, at about 2ha, has been extended.
- The status of the large Reedbed at Rabbit Ings, Royston is uncertain, with reclamation plans proposed for the derelict colliery site.
- The feasibility of creating further Reedbeds in the Dearne Valley is under investigation.

Proposed Local Action

- Monitor the Reedbed restoration at Worsbrough Reservoir and carry out further works as appropriate.
- Create new areas of Reedbed on suitable sites in the Dearne Valley in partnership with EA, and RSPB, including any that may occur from new flood defence works.
- Survey and monitor all known Harvest Mouse sites and potential new locations and advise appropriate management.
- Survey Reedbeds for the presence of Grass Snake and undertake appropriate management.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Cuckoo and Reed Bunting.

BMBC Planning Policy Actions

- Designate Natural Heritage Sites (NHS) and declare Local Nature Reserves (LNR) on appropriate areas of Reedbed habitat or instigate other appropriate measures for their protection.
- Seek the inclusion of policies within development plans that ensure new development does not have an adverse effect

on the nature conservation of Reedbeds and encourage schemes to create Reedbeds as an after use.

- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Development Control Actions

- Through planning control or other land use consultation processes, allow no further loss of areas of Reedbed habitat and seek opportunities to enhance existing areas and create new areas through approved development.
- Ensure that development schemes do not affect the integrity or conservation interest of Reedbeds.

BMBC Land Ownership and Management Actions

- Seek to reduce tree encroachment on Barnsley MBC Carlton Marsh Local Nature Reserve (LNR) main lake.
- Consider dredging works to maintain suitable wetland habitat at Barnsley MBC Carlton Marsh LNR.

Ponds



Description

This category includes natural and man-made waters less than 2ha in size, including ponds, ditches, springs and canals. They are generally very rich in wildlife, supporting all our amphibians, Dragonflies and many other aquatic insects and regionally scarce plants such as Autumnal Water Starwort, Frogbit, Whorled Water Milfoil, Hair-like Pondweed, the nationally scarce Sweet Flag and the well-known Marsh Marigold.

Bottom-dwelling invertebrates such as Snails, Dragonflies and Water Beetles are abundant and some sites may support fish and Eel. Amphibians, including the protected Great Crested Newt and Grass Snake are often present.

Mammals such as Water Vole, Daubenton's Bat and Soprano Pipistrelle are all heavily dependent on larger ponds and canals. The surrounding banks and adjacent areas can provide hunting grounds for Barn Owl.

National Status

Local significance only, but extremely important in that context. This habitat often supports a large range of flora and fauna, often not rare but locally important.

Local Status

The 1980 Phase I Habitat Survey of Barnsley identified 57 sites of significant value, including eight lengths of canal, 12 ditches, 35 Ponds and numerous springs. Some 12 of these sites are included in the Natural Heritage Site (NHS) register. There is no data for garden and farm Ponds, which must number in the hundreds.

Legal Status

Under the Environment Act, 1995, the Environment Agency has a duty generally to promote the conservation of aquatic flora and fauna. Water Companies, Internal Drainage Boards, British Waterways and Local Authorities also have statutory duties towards nature conservation.

Under the Wildlife and Countryside Act, 1981, some species are protected from damage and disturbance. There are various statutes covering water pollution and control to ensure that all surface waters have good ecological status and that there is no deterioration in water quality.

Sites included in the Unitary Development Plan (UDP) as Natural Heritage Sites (NHS) have a presumption against development, but are not protected against operations which do not require planning consent.

Links with other Action Plans

SAP2	Bats
SAP3	Water Vole
SAP10	Barn Owl
SAP14	Great Crested Newt

Current Factors Causing Loss or Decline

- Run off of organic and inorganic fertilisers can cause nutrient enrichment (eutrophication) of the water.
- Changes in land cover can increase the risk of pollution and of siltation, exacerbated by the removal of waterside vegetation and reedswamp, which are effective barriers.
- Ground subsidence and inappropriate excavation works in man-made structures such as canals, small dams etc. can result in leaking and drying out.
- The introduction of fish, the removal of predators, and the manipulation of existing fish stocks for recreational fishing leads to the loss of natural fish populations and may affect plant and invertebrate communities.
- Heavy stocking of bottom-feeding fish such as Carp can cause turbidity and enrichment.

- Use of canals for recreational and sporting purposes may create disturbance, trampling of marginal vegetation and stirring up sediment, resulting in enrichment and growth of algae.
- Loss of small Ponds to development and, where Ponds are retained, they can be cut off from appropriate surrounding habitats ie. grasslands, hedgerows etc. important to the Great Crested Newt, and can suffer biological isolation from other Ponds.
- Infilling of small Ponds for safety reasons. Small farm Ponds may cease to have a role and fall into disuse and neglect.

Current Local Action

- Several new Ponds and Pond complexes have been created on sites in the Dearne Valley, particularly RSPB Old Moor.
- Annual survey of amphibians in Ponds and canals.

Proposed Local Action

- Monitor the development of fisheries to ensure that nature conservation issues are given full consideration.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Survey Ponds, canals and other areas of standing water for the presence of Water Shrew, Eel, Toad and Grass Snake and advise appropriate management.
- Seek opportunities to create new areas of standing water which can be managed to promote biodiversity and link with the Million Pounds Project being run by Pond Conservation and Natural England.
- Work with Barnsley MBC to create a Local Development Framework (LDF) supplementary planning document on Biodiversity and Waterfront Development and Management, including the expectation that opportunities will be sought to improve and create habitat for species such as Water Vole and Otter, rather than just slow the loss of habitat. A proactive planning approach should be adopted to retain native bank side cover, including dense brambles and scrub, and control invasive plants when brown field sites are redeveloped.

BMBC Planning Policy Actions

- Include habitat and species protection policies in development plans and/or supplementary guidance.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Identify priority non-designated sites for elevation to Natural Heritage Sites (NHS) or Sites of Special Scientific Interest (SSSI) status.

- Identify all key and best representative open standing water habitat types.
- Produce, adopt and apply supplementary planning guidance. Ensure developers are made aware of the importance of Ponds.
- Ensure that all development plans, including mineral and waste plans, contain specific reference to the protection and enhancement of water courses, their corridors and floodplains. These should include general and site-specific policies on issues such as sustainable urban drainage, opening up culverts and the need to retain or create undeveloped buffer zones or river corridors on both banks.

BMBC Development Control Actions

- Discuss protection, mitigation and conservation of Ponds on development sites prior to submission of planning applications.
- Ensure that built development does not result in the loss of bank side habitats.
- Seek habitat enhancement for all development proposals in the vicinity of watercourses.

BMBC Land Ownership and Management Actions

- Produce and adopt management plans in conjunction with landowners.
- Manage Barnsley MBC countryside sites with regard to HAP15 Ponds targets and, where appropriate, so as to contribute to them.

Rivers



Description

There are no large water courses in the district, the majority of the running water being in the form of streams and small rivers, the largest being the Rivers Dearne and Don. The watershed of these two Rivers follows the line of the A629 Huddersfield to Sheffield Road, passing to the east of Penistone. All streams to the east of this line flow eastwards into the Dearne catchment, including Cawthorne Dike, Daking Brook, Silkstone Beck, together with the River Dove and its tributaries such as Rockley Dike. To the west of the watershed, the valleys of the River Don and the Porter or Little Don flow south-east to their confluence at Deepcar.

This habitat provides important sites for species such as Otter, Pipistrelle Bat, Daubenton's Bat, Water Shrew, Water Vole, Kingfisher, Sand Martin, Banded Demoiselle, native White-clawed Crayfish, Salmon, Bullhead, Brown Trout and Eel.

Over past years, the quality of both the River Don and River Dearne has improved due to legislation and guidance by the Environment Agency.

National Status

Local significance only, but extremely important in that context.

Local Status

The district is drained by two main Rivers, the Dearne and the Don, both of which have a number of important tributaries. Much of the character of the district derives from the pattern of hills and dales bisected with small streams and woodlands.

Legal Status

Under the Environment Act, 1995 the Environment Agency (EA) has a duty generally to promote the conservation of aquatic flora and fauna, so far as they consider it desirable, and to consult the statutory conservation agencies over any work likely to adversely affect an SSSI. Water Companies, Internal Drainage Boards, British Waterways, and Local Authorities also have statutory duties towards nature conservation.

Under the Wildlife and Countryside Act, 1981 the unlicensed release to the wild of non-resident alien animals, some established alien animals (American Mink, European Pond Terrapin and certain species of wildfowl, amphibia, fish and crayfish) and some plants is prohibited. These actions can have a serious adverse impact on important species; eg. White-clawed Crayfish.

Sites registered as NHS sites in the Unitary Development Plan (UDP) have a presumption against development, but are not protected against operations which do not require planning consent.

Links with other Action Plans

SAP2	Bats
SAP3	Water Vole
SAP4	Otter
SAP10	Barn Owl
SAP15	Salmon
SAP16	Bullhead
SAP17	White-clawed Crayfish

Current Factors Causing Loss or Decline

- River channel modification such as deepening and straightening, removing bank side vegetation and surrounding habitats.
- Pollution from industrial and sewerage discharges reduce water quality.
- Nitrates and phosphates from agricultural run-off can cause eutrophication.
- Overgrazing along river banks can cause erosion and lack of bank side cover.
- Development close to the river corridor resulting in loss of habitat.
- Structures within the river and its banks, such as weirs and bridges, preventing migration movements of fish and other small aquatic and land-based creatures.

- Excessive abstraction resulting in reduced flows.
- Culverting of smaller feeder streams.

Current Local Action

- Extensive works along the River Dearne at Broomhill by the Environment Agency to replace meanders and encourage the development of deeper pools and shallow gravel bars, including bank side improvements.
- Provision of artificial Otter holts at RSPB Old Moor.
- Surveying and monitoring for signs of return of Otter in the Dearne and Don catchment.

Proposed Local Action

- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Identify target areas for habitat enhancement, particularly the restoration of riparian vegetation on bare sections of river bank.
- Monitor Rivers for the presence of Otter, Water Vole, Eel, Salmon, Brown Trout, Bullhead and White-clawed Crayfish.
- Work with Barnsley MBC to create a Local Development Framework (LDF) supplementary planning document on Biodiversity and Waterfront Development and Management. These should including the expectation that opportunities will be sought to improve and create habitat for species such as Water Vole and Otter, rather than just slow the loss of habitat. A proactive planning approach should be adopted to retain native bank side cover, including dense brambles and scrub, and control invasive plants when brown field sites are redeveloped.

BMBC Planning Policy Actions

- Agree methodology for the evaluation of river corridors and river corridor habitats and the identification of

‘Wildlife Sites’. Include methodology for evaluating sites for conservation, restoration and re-creation, with reference to key habitats; key sites for important species the importance of creating linkages and corridors between habitats.

- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.

BMBC Development Control Actions

- Ensure that all proposed development likely to impact upon river systems is minimised and mitigated against.

BMBC Land Ownership and Management Actions

- Design and implement habitat improvement programmes on the most suitable stretches of river. Develop whole river restoration schemes.
- Continue to work with Dearne Valley Green Heart Project to identify and develop river corridor opportunities in partnership with other organisations.

Open Mosaic Habitats on Previously Developed Land



Description

This habitat involves derelict industrial land such as former colliery sites, disused railways, mineral and clay extractions, urban gardens, allotments, road verges and public open space which form a very significant resource for wildlife. Individual areas are small, but cumulatively provide an area far in excess of that of nature reserves, indeed the combined area for built-up and amenity areas is greater than the area of semi-natural habitats in Barnsley.

Post-industrial land, such as spoil heaps, is nutrient and mineral deficient. Colonising vegetation is therefore often sparse and sometimes unusual. Spectacular assemblages of both natural and introduced plants occur on some sites, and often in surprising locations, due to the introduction of alien soils and other materials (eg. railway ballast). The habitat is important for Bumble Bees and also for other invertebrates.

Within built-up areas there are important semi-natural sites, such as ancient woodland or meadows. It is increasingly appreciated that there are also recognisable 'natural' urban habitats which develop on waste ground and derelict sites. Often these contain a mix of native and alien introduced species such as Buddleia, creating a very diverse ecosystem. Whatever their origin, these sites offer many people their only opportunity to appreciate the importance of biodiversity.

National Status

The local significance of this habitat, when reproduced at national level, would achieve even greater importance. Demand for house building land is likely to put increasing pressure on the countryside and, whilst garden conservation cannot in any way replace lost habitats, it can provide a very significant resource for many common and vulnerable species.

Local Status

Barnsley has a land area of 32,833ha and from this the total of built-up and amenity land is 7,336ha, more than the total for all the semi-natural habitats in Barnsley put together.

Although post-industrial areas cannot be left as landscape eyesores, it is very important now to preserve 'mini habitats' within these areas to conserve species such as Little Ringed Plover and other important species. Due to agricultural intensification, these colonised sites offer the last remaining pocket for many important species of flora and fauna.

Legal Status

Some species within this habitat have legal protection under the Wildlife and Countryside Act, 1981. Sites listed in the Unitary Development Plan (UDP) as Natural Heritage Sites (NHS) have a presumption against development but have no protection against operations which do not require planning consent.

Some trees will be protected by Tree Preservation Orders (TPOs) or policies relating to Conservation Areas.

Links with other Action Plans

Many of the species with action plans are found in urban areas. These include:

SAP1	Hedgehog
SAP2	Bats
SAP3	Water Vole
SAP5	Grey Partridge
SAP7	Kestrel
SAP8	Little Ringed Plover
SAP9	Lapwing
SAP10	Barn Owl
SAP11	Skylark
SAP12	Tree Sparrow
SAP14	Great Crested Newt
SAP18	Glow Worm
SAP19	Dingy Skipper

Current Factors Causing Loss or Decline

- New development, causing loss of natural habitats.
- The loss of some large gardens in built-up areas to facilitate higher density development.
- Deliberate targeting of naturally vegetated derelict sites for development or landscaping.
- Unsympathetic management of open space, including inappropriate use of chemicals.
- The felling of trees for safety, especially those with cavities, removing nesting sites for birds and roosting sites for bats. In some instances hibernating bats have been killed by tree felling.
- The use of toxic timber treatment chemicals in roof spaces, poisoning bats.
- The conversion of old buildings/barns etc. to residential or other use without taking account of existing wildlife.
- Removal of 'weed' species which produce nectar and seeds for wild creatures. Many cultivated plants and flowers are not as attractive to wildlife as native species.
- Over-manicured gardens providing few opportunities for wildlife. Most gardens have space for a bit of 'wilderness' where wildflowers are allowed to flourish.

- Property repairs causing loss of roosting sites for birds and bats, especially the entombing of bats in wall cavities etc. by blocking access holes.
- The infilling of garden ponds for safety.
- Overstocking garden ponds with fish can result in loss of plant and invertebrate populations.
- Danger from new roads and traffic, especially where new roads cross traditional migration and feeding routes for Badger, Otter, Frogs and Toads.
- Unsympathetic reclamation schemes failing to retain species.
- Poor aftercare and maintenance of sites which have been landscaped to accommodate wildlife.

Current Local Action

- Some monitoring and recording of wildlife on sites by Barnsley Natural History Society, Barnsley Bird Study Group and other individuals.
- Current management schemes.
- Open space management.
- Environmental projects.

Proposed Local Action

- Provide advice and support for the creation and management of wildlife areas in school grounds, parks and other green spaces.
- Survey and complete a register of all Ancient and Veteran Trees.
- Identify any areas of remnant orchards within the urban built-up areas in Barnsley.
- Promote the concept of green gardening for wildlife to members of the public, including the value of safe and sympathetically designed garden ponds.
- Extract information from the *Barnsley Bird Study Group Breeding Bird Survey* to provide populations and mapping of breeding Grey Partridge, Little Ringed Plover, Barn Owl, Song Thrush, Skylark, Dunnock, Grasshopper Warbler, Starling, Tree Sparrow, House Sparrow and Linnet.
- Survey and monitor all known Harvest Mouse sites and potential new locations and advise appropriate management.
- Survey urban built-up areas for the presence of Grass Snake and Toad and advise appropriate management.
- Encourage the appropriate management of urban built-up areas to benefit Bumble Bees.
- Monitor reclamation schemes to ensure that valuable habitats are not lost without adequate provision for replacement/enhancement and potential for the creation of new habitats.
- Encourage participation among farmers in Environmental Stewardship and Countryside Stewardship Schemes.
- Survey the remaining areas of derelict land to identify existing wildlife value and factors supporting key species such as Badger, Green Hairstreak, Wall Brown Butterfly and Bumble Bee.

BMBC Planning Policy Actions

- Review, prioritise and invest in improving degraded and derelict sites in the urban fringe to enhance their value for biodiversity.
- Encourage the creation of new habitat through the requirement made under Planning Policy Statement (PPS) 9, to incorporate biodiversity enhancements into development wherever possible.
- Develop a booklet on land management for urban wildlife, including case studies of good practice, as guidance for planners, land managers and others. Particularly promote the concept of wildlife corridors and green networks.
- Target professional bodies (planners, engineers and surveyors) through seminars and their institutes, to ensure that they understand the contribution they can make in terms of biodiversity gains through the development process and management of open space.
- Promote the importance of brown field sites and urban green networks for biodiversity among land use planners.
- Assess all brown field land against Natural Heritage Site (NHS) criteria and define qualifying sites in development plans.
- Promote the Green Space Strategy, setting out a clear programme of action for the protection and management of the urban green network.
- Produce Nature Conservation Strategy, setting out a clear programme of action for the protection and management of biodiversity sites.
- Seek to ensure that, through the development process and other mechanisms, every resident has access to urban wild space.
- Define all urban woodland that fulfils the NHS criteria and

identify in development plan (Local Development Framework).

- Ensure that new development, from a few houses to large-scale development, actually contributes to biodiversity. Ensure that, where appropriate, native planting is used. Where biodiversity is lost as a direct consequence of development, compensatory habitats should be provided.
- Where derelict land or former mineral extraction sites of low biodiversity value are being converted to green space, there should be a presumption in favour of restoring and creating habitats of conservation value, particularly where these will link to or extend existing habitats.
- Ensure that all important trees and woodlands under perceived threat are protected by Tree Preservation Orders (TPOs).
- Ensure that important features such as highway trees, Notified Road Verges and ancient Hedgerows are protected through legislation and the planning system.
- Lobby the Royal Town Planning Institute to promote the inclusion of urban and post-industrial biodiversity issues into accredited courses.
- Develop a methodology to identify NHS sites of local community value by 2012. Encourage the local authorities to give these particular protection through the planning system.
- Incorporate good design practices into development plans. Develop and publish design guidance to provide alternatives where habitats will be lost, for example by installing bat bricks.
- Ensure that developers establish areas of new native woodland as part of new residential, commercial and industrial developments. Maximise opportunities offered by Section 106 agreements.
- Produce a register of all contaminated land in the borough and, whenever possible, take into account the requirements of local biodiversity when designing remedial treatment strategies.
- Identify ownership of all areas of vacant and derelict land with nature conservation value. Advise owners of biodiversity value and appropriate conservation management actions.
- Provide information on best practice for biodiversity to Local Authority service departments, developers and landowners.

Prevent loss of biodiversity associated with brown field land resources by:

- 1) Having regard to the protection and enhancement of habitats when considering the allocation of sites, in line with the approach set out in PPS 9 and the priorities set out in the Local Biodiversity Action Plan (LBAP).
- 2) Having regard to the priorities set out in the Biodiversity Action Plan (BAP) in the interpretation of Unitary Development Plan (UDP)/LDF policies (and any supporting SPGs/SPDs).
- 3) Providing technical advice on the severity, implications and nature of suspected breaches in planning control (either conditions or unauthorised development).
- 4) Awarding appropriate site protection through designation, based upon routine environmental monitoring and assessment.
- 5) Ensuring that all partners and relevant landowners, service

providers and operational contractors are informed of the existence and importance of brown field land (both designated and non-designated sites).

BMBC Development Control Actions

- Through planning control, ensure that viable networks of wildlife sites and corridors are maintained in all urban areas. Seek opportunities to create areas of new habitat through approved development.
- Maximise the biodiversity value of amenity planting and landscaping schemes by using locally native species and incorporating features such as bat boxes wherever possible.
- Ensure landowners review the management of existing urban green spaces – this to include, Council-owned public open space, highway land, churchyards and land in private ownership, such as business parks and factory grounds. Where appropriate, improve on site management to maximise its potential for wildlife.
- Review management of public green space, industrial sites and derelict land to provide suitable undisturbed grassland habitat for various BAP species.

BMBC Building Control Actions

- Assess the impact renovation will have on wildlife before any work is undertaken and adopt biodiversity related building control regulations.

BMBC Land Ownership and Management Actions

- Review specifications for grounds maintenance works in the context of sustainability commitments.
- Plant native trees and woodlands on appropriate public open spaces and in the urban fringe.
- Ensure Local Authority parks and related contracts contain basic habitat management criteria.
- Produce a strategy for the management of allotments and their integration with nature conservation.
- In appropriate areas of public and private open space, develop more low maintenance alternatives ie. reduce the area of short sward amenity grassland and area of strimming around plantations to encourage the creation of 'biodiversity banks' and pocket wildlife areas in housing estates, industrial grounds etc.
- Include biodiversity and sustainable practice in all parks management plans by 2010.
- Provide guidance on the management of derelict land sites for birds.
- Review management of public green space, industrial sites and derelict land to provide suitable undisturbed grassland habitat for Skylark.
- Continue to work in partnership with Coalfield Heathland Project to maximise biodiversity potential of Barnsley MBC Wogden Foot, ex-railway sidings site.

Barnsley Metropolitan Borough

Barnsley Metropolitan Borough extends from the coal measures of the former industrial centres in the east to the gritstone moorlands in the west. The area is drained by the Rivers Dearne and Don and their tributaries. The M1 corridor to the west of the town centre forms a boundary between the more built-up urban areas and the semi-rural western districts.



Glossary

BMBC	Barnsley Metropolitan Borough Council
BTO	British Trust for Ornithology
CITES	Convention on International Trade of Endangered Species
CS	Countryside Stewardship
DEFRA	Department for the Environment, Food and Rural Affairs
NE	Natural England
FWAG	Farming and Wildlife Advisory Group
IUCN	International Union for the Conservation of Nature
LA	Local Authority
LEAP	Local Environment Agency Plan
MAFF	Ministry for Agriculture, Fisheries & Food (now DEFRA)
NHS	Natural Heritage Site
NNR	National Nature Reserve
PPS 9	Planning Policy Statement 9
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SPA	Special Protection Area
SNCO	Statutory Nature Conservation Organisation
TPO	Tree Preservation Order
UK BAP	United Kingdom Biodiversity Action Plan
WCMC	World Conservation Monitoring Centre

