



PREPARED BY MARGARET STREET  
AND NICK BRODIN



# BIODIVERSITY INDICATORS AND TARGETS FOR THE NORTH EAST OF ENGLAND



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NORTH EAST  
ASSEMBLY  
THE VOICE FOR  
THE REGION



PREPARED BY MARGARET STREET AND  
NICK BRODIN JANUARY 2004

# BIODIVERSITY INDICATORS AND TARGETS FOR THE NORTH EAST OF ENGLAND

This document has been produced by English Nature  
on behalf of the North East Biodiversity Forum

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The indicators and targets have been the subject of a wide consultation among member organisations of the North East Biodiversity Forum. Thank you to all of those who provided comments, information and helpful feedback, particularly Keith Bowey, Susan Stewart, Jim Heslop, Andrea Shaftoe, Steve Lowe, John O'Reilly, Terry Coult, Elaine Rigg, Gillian Thompson, Andrew Goodman, Suki Finney, Anna Moody, Moira Owen, Chris Spray, Sam Ellis, Mick Sharpe, Julie Stobbs, Malcolm Steele and Richard Pow.



## FOREWORD

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This report has been prepared by the North East Biodiversity Forum, and follows on from *A Biodiversity Audit of the North East* published in 2001.

The audit provided a valuable baseline on the biological resources of the Region. This report takes that process one step further and gives targets for the protection and enhancement of the North East's biodiversity, and indicators that can be used to measure progress. It is intended to inform the work of all organisations and bodies involved in the conservation and enhancement of biodiversity within the Region, including Government agencies, local authorities, local Biodiversity Action Plan partnerships and private businesses.

The North East Biodiversity Forum believes that the indicators and targets produced here will assist with production of other regional strategies and plans, such as the revised Regional Sustainability Framework and the Regional Spatial Strategy. This document is also in part a regional response to *Working with the Grain of Nature: a Biodiversity Strategy for England*, that was launched by the Government in October 2002, and especially to the national biodiversity indicators that this contains.

These indicators and targets contain the North East Biodiversity Forum's vision for a richer and more diverse natural environment within the Region. Some random examples of what we wish to see achieved include:

- The creation of 2800 ha of native semi-natural woodland and restoration of a further 1040 ha of existing woodland
- The creation of 310 ha of diverse new grasslands
- The enhancement of 50 kilometres of riverbank for the benefit of species such as otter and white-clawed crayfish
- The creation of 130 ha of new maritime habitats such as dune grassland, saline lagoons and saltmarsh
- Halting the loss of colonies of rare butterflies such as dingy skipper and small pearl-bordered fritillary

The members of the Forum will carefully monitor progress on these indicators and targets and will report on progress in a triennial 'State of the Region' report. The indicators and targets themselves will also be kept under constant review and revised as necessary.



**John Barrett**

Chair of the North East Biodiversity Forum

*Saltmarsh and thrift, Lindisfarne National Nature Reserve, Northumberland.*

## PREFACE

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The North East is an area of great diversity and beauty containing a remarkable variety of plants, animals and landscapes. Much of the land is of national and international importance for its flora and fauna, recognised through a variety of designations. The North East's natural resources are a vital asset for all of us who live or work here. They enhance our quality of life by providing an attractive place in which to live and work, act as a measure of wider environmental health, provide 'ecosystem services' (for example by ameliorating the effects of pollution, or by reducing flood risk to properties by providing water storage capacity), and attract both visitors and business to the area.

Biodiversity (biological diversity – or put simply, the variety of living things) is recognised by the Government as a key test of sustainable development. Biological diversity is a limited natural resource that once lost cannot be replaced. The maintenance and enhancement of biodiversity is therefore vital if we are to achieve the overall aim of sustainable development. In the words of Tony Blair in his foreword to *A Biodiversity Audit of the North East*, "Conserving biodiversity can no longer be seen as an add-on but is central to sustainable development."

Over the last hundred years there have been major losses to the biodiversity of the North East. Action needs to be taken if these losses are to be halted or reversed. The framework for this action is already in place through the UK Biodiversity Action Plan (UK BAP) and the local BAP partnerships that have been formed as a response. More recently the Government has published *Working with the Grain of Nature: a Biodiversity Strategy for England*, which sets out a work programme for the conservation of biodiversity over the next five years.

There is an increasing emphasis on regional decision-making in all activity, including delivery of UK biodiversity targets. *Working with the Grain of Nature* makes it clear that there should be full integration of biodiversity considerations within plans and policies for the regions, and in particular Regional Sustainable Development Frameworks and the activities of Government Offices, Regional Development Agencies, Regional Chambers and Government Agencies. The indicators and targets contained in this document are intended to inform the activities of regional bodies and organisations, and the development/review of regional plans and strategies. They should also provide a framework in which the North East's contribution towards meeting national biodiversity targets can be measured and reported.

The indicators and targets have been consulted on and agreed by members of the North East Biodiversity Forum. In Part 2 are targets for a number of habitats and species, reflecting what the North East Biodiversity Forum regard as the Region's contribution to meeting UK BAP targets. This section also provides targets for a number of the Regionally important species and habitats identified in *A Biodiversity Audit of the North East*.



# PART 1

Biodiversity Indicators  
for the North East of England



# INTRODUCTION TO THE BIODIVERSITY INDICATORS

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The purpose of these indicators is to help measure progress in efforts to conserve the biodiversity of the North East, and in particular to monitor the contribution the Region is making towards delivery of *Working with the Grain of Nature: a Biodiversity Strategy for England*.

The indicators have been selected to reflect the broad range of activities and issues. They deal not only with statutory wildlife sites and national biodiversity priorities, but also with engagement of people and business, and the integration of national policies on biodiversity into the activities of other organisations and sectors. They have been selected to illustrate changes in the state of the North East's biodiversity and changes in society's response to changing trends in biodiversity (for example, through changes in policy or by increased public involvement). Developing meaningful indicators of the health and quality of our biodiversity is immensely difficult and even the best can only give a partial picture. The effectiveness and content of the indicators contained here will therefore be kept under constant review.

Where possible the indicators are adapted from other national biodiversity and sustainability indicators such as *Quality of Life Counts* (DETR 1999) and, in particular, the England Biodiversity Strategy, and the document *Measuring the progress of the biodiversity strategy for England: baseline assessment* published in December 2003.

## Links to England Biodiversity Strategy

The England Biodiversity Strategy *Working with the Grain of Nature: a Biodiversity Strategy for England* was launched in October 2002 by the Rt. Hon. Margaret Beckett MP, Secretary of State for the Department of Environment, Food and Rural Affairs. The Strategy sets out a series of policies and objectives for protecting and enhancing biodiversity in England, and integrating biodiversity considerations across a range of key sectors.

The Strategy contains eight 'headline' indicators and an additional 39 indicators covering nine sectors (agriculture; water and wetlands; woodland and forestry; towns, cities and development; coastal and marine; local and regional action; business involvement; public participation and enjoyment; climate change impacts) that will be used to track progress. An updated set of indicators and targets from the Strategy were published in December 2003 in the document *Measuring the progress of the biodiversity strategy for England: baseline assessment*.

Where possible, the North East indicators have sought to replicate the national indicators, so that the Region's contribution to delivery of the Strategy can be measured. However, this has not been possible in all cases because of difficulties in collecting the information required for the indicator at a regional level (for example, in the case of changes to populations of wild birds). In addition, a number of specific regional indicators have been developed that are not directly referable to the national indicators but which will allow progress on key local issues (such as the status of local Wildlife Sites) to be monitored.

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## Format of Indicators

All the indicators follow a standard format:

<b>Title:</b>	<b>Description of the indicator</b>
<b>Reason for indicator:</b>	A description of the relevance of the indicator to safeguarding and enhancing the biodiversity of the North East, together with any additional contextual information.
<b>Current status:</b>	Details of the current status of the indicator (where known) and any changes that have occurred/are likely to occur.
<b>Targets:</b>	Any targets that have been set by the North East Biodiversity Forum to accompany the indicator. Not all indicators have been assigned targets. Targets have only been given where, in the opinion of the Biodiversity Forum, there is a strategic issue that needs to be addressed.
<b>Data sources:</b>	Details of where or how information in support of the indicator will be gathered. In some instances gathering complete data to support an indicator may be difficult. However, in all cases the North East Biodiversity Forum is confident that sufficient data is available to show meaningful trends.
<b>Links to indicators in the EBS:</b>	Reference to indicators within the England Biodiversity Strategy that are relevant to the particular North East indicator.

## Review and Future Development of Indicators

These indicators will be kept under review by the North East Biodiversity Forum. Progress will be reported in a triennial 'State of the Region' report. Indicators will be modified as necessary and new indicators added as necessary.

It is highly likely that there will be future modification of indicators concerned with populations of wild birds. At present, the England Biodiversity Strategy has a headline indicator for populations of wild birds, and separate sub-indicators for farmland birds, wetland birds, woodland birds, birds in towns and gardens, and coastal and seabirds. National reporting on these indicators will be achieved by examining changes in the index of various bird species derived by the British Trust for Ornithology from the results of its Breeding Bird Survey (BBS). There is currently insufficient recording activity in the North East to derive a regional bird index and so tracking changes is not possible. The North East Biodiversity Forum has a target to ensure that there is sufficient survey effort to develop a baseline BBS index for the Region by 2006, after which time the bird population indicator will be reviewed.

## INDICATORS

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### INDICATOR 1: Number of landscape-scale biodiversity projects undertaken

#### Reason for indicator:

Historically, nature conservation has tended to focus on specific areas of land and followed three main approaches – the conservation of threatened plant and animal populations, the conservation of representative biotopes and the conservation of areas of high biological and ecological diversity. This approach tends to conserve structures rather than processes. Conservation planning needs to consider all levels of biological organisation from population to landscape. A landscape approach will also assist the conservation needs of particular species, many of whom require a mixture of habitat within a landscape in order to survive. This provides a ‘joined-up’ approach that addresses issues associated with the fragmented nature of much of the countryside’s natural features.

A landscape scale project is one that takes place above the level of a single discrete site, at a scale that includes a number of different habitats and land uses. There is no absolute cut-off size for what can be classed as a landscape scale project, but in practice they are likely to be in excess of tens of kilometres squared. Examples of such projects would include those that address ecosystem processes on a landscape scale (for example, river catchment-wide approaches to managing wetlands), ‘area based’ projects that will carry out various biodiversity enhancements over a wide geographical area, or activities designed to benefit species whose conservation depends on a particular landscape pattern of different habitats.

#### Current status:

There is an increasing movement towards undertaking projects at the landscape scale within the Region. Current examples of this include the Team Valley Revival Project and the Minerals Valley Project. Future projects adopting a landscape-scale approach include the proposed enhancements of Druridge Bay, and the proposed re-introduction of the red kite within the Derwent Valley.

#### Data sources:

Data on landscape scale biodiversity projects will be supplied by local Biodiversity Action Plan groups.

#### Links to indicators in the EBS:

No direct links but large scale biodiversity projects will contribute to national BAP targets, and to Headline indicator H3: Status of Biodiversity Action Plan priority habitats and species in England.

### INDICATOR 2: Proportion of surface waters in good condition

#### Reason for indicator:

The ecological health of the aquatic environment is a key test of sustainable management. Diffuse and point-source pollution due to nutrient, sediment, chemical and pesticide input has led to deterioration in water quality and associated wildlife. The proportion of river length classified as being in good biological condition rose from 86% in 1990 to 94% in 2000.

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**Current status:**

The North East's rivers have shown a steady improvement in biological quality over the last decade, and this improvement is projected to increase into the future.

**Target:**

Achieve good (class A or B) Biological Water Quality on 91% of watercourses in the Region by the 2010 General Quality Assessment.

**Data sources:**

Data on this indicator will be collected by the Environment Agency.

**Links to indicators in the EBS:**

Headline indicator H5: Biological quality of rivers.

**INDICATOR 3: Nutrient levels in rivers and lakes****Reason for indicator:**

Most rivers and wetland systems within the Region should be naturally low in nutrients such as phosphates and nitrates. Increases in nutrient concentrations from pollution can result in increased growth of algae and other opportunistic species. This can lower the diversity of the plant community present reducing the value of the habitat. Impacts can occur at a range of levels, from subtle changes through to extreme cases where nutrient levels result in excessive growth of algae and the loss of higher plants and associated biodiversity. A whole range of invertebrates, birds and mammals can then be affected by the 'loss' of habitat. Nutrient levels are therefore a key indicator of the health of our rivers and wetlands.

**Current status:**

Government guidance recommends that rivers should not exceed phosphate concentrations of 0.1 mg per litre. 'High' nitrate (NO<sub>3</sub>) concentrations are defined as those over 30 mg per litre. Nationally, the percentage of river length within the guideline value for phosphate is currently 46%, while the percentage of rivers with nitrate concentrations below the nitrate level has remained stable, at around 70%. Within the North East Region, 59.1% of measured rivers meet Government guidance for both phosphate and nitrate.

**Data sources:**

The Environment Agency GQA provides data on river nutrient levels. Monitoring will be extended to selected stillwaters using protocols developed for implementation of the EU Water Framework Directive. (Note: Different rivers and sections within rivers have different nutrient level requirements. The use of a blanket standard is useful to monitor overall trends in nutrient levels, but monitoring compliance against locally set nutrient standards will be required to give a true measure of nutrient status)

**Links to indicators in the EBS:**

W5: Nutrient levels in rivers and lakes in England (provisional).

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#### **INDICATOR 4: Trends in populations of farmland birds**

##### **Reason for indicator:**

Populations of birds are considered to be good indicators of the broad state of biodiversity because they occupy a wide range of habitats and they tend to be near to the top of the food chain. Considerable amounts of bird population data have been collected by organisations such as the British Trust for Ornithology and by volunteers. The availability of this data allows for analysis of past trends and provides a means of assessing future change as well as setting quantifiable targets.

Declines in farmland bird species have been linked to changes in agricultural practices, especially during the 1970s and 1980s. Among the species that have declined most severely are tree sparrow, corn bunting and grey partridge. In 1999, the Government published *A Better Quality of Life: A Strategy for Sustainable Development in the United Kingdom*. This strategy includes 150 indicators including a sub-set of 15 key 'headline' indicators intended to focus public attention on the meaning of sustainable development and to give a broad overview of whether we are achieving a 'better quality of life for everyone now and for generations to come.' One of these 'headline' indicators is populations of wild birds. One of the Governments Public Service Agreement targets is to reverse the decline in farmland birds by 2020, as measured against underlying trends.

Changes in trends of wild birds are monitored using the Breeding Bird Survey (BBS) index produced by the British Trust for Ornithology. There is currently insufficient survey effort within the North East to produce a Regional index and so assessing changes is difficult. The North East Biodiversity Forum therefore have a target to set up a monitoring scheme by 2006 that will enable a baseline Regional BBS index to be produced, against which future progress can be measured. As an interim measure it is proposed to monitor populations of wild birds on a sample of sites that are being managed under the arable options of Countryside Stewardship. Monitoring will commence in 2004.

##### **Current status:**

Nationally, there was a decline of almost 50% in populations of farmland birds between 1977 and 1993, although the rate of decline has slowed since. There are no specific figures available about the populations of farmland birds within the North East during this period, but anecdotal evidence suggests that population trends have followed the national figures.

##### **Targets:**

By 2006 have in place a North East bird monitoring scheme that will enable a Regional Breeding Bird Survey index to be produced.

From 2004, and on an annual basis thereafter, ensure that populations of farmland birds on land managed through the arable options of Countryside Stewardship are maintained or increasing.

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**Data sources:**

Defra RDS will collate data on farmland birds on sites managed under Countryside Stewardship. Incidental data from other sites may be available from the RSPB and local Bird Clubs.

**Links to indicators in the EBS:**

A1: Populations of farmland birds.

**INDICATOR 5: Area of land designated as Sites of Special Scientific Interest in favourable condition****Reason for indicator:**

Sites of Special Scientific Interest (SSSIs) represent the best national sites for wildlife and/or geology. Many are of international importance in terms of conservation and also play an important role in local culture and economies as well as providing opportunities for people to be able to enjoy wildlife and landscape. SSSIs are the only large areas of our land whose nature conservation value is systematically monitored and as such act as a barometer for the state of the countryside. Currently there are 4102 SSSIs in England; these cover about 1 million hectares, around 7.7% of the land area of England.

The Government's Quality of Life indicators include a measure of the condition of SSSIs. The Government's Public Service Agreement is to bring 95% of SSSIs in to favourable or unfavourable recovering condition by 2010.

Agricultural management (in particular overgrazing of upland sites) and the exploitation of inland and coastal waters are the main reasons why sites are in unfavourable condition nationally. The indicator will show the effectiveness of site protection and management measures being undertaken within the Region.

When reporting on this indicator, separate figures will be given for:

- All SSSIs
- Farmland SSSIs
- Water and Wetland SSSIs
- Woodland SSSIs
- Urban SSSIs
- Coastal SSSIs
- SSSIs in local authority ownership
- SSSIs owned or managed by private companies

This will be done to reflect the indicators for different sectors contained in the England Biodiversity Strategy.

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**Current status:**

As of April 2003, only 37.7% of the SSSI area in the North East (39 824 ha) was in, or recovering towards, favourable condition. The major causes of unfavourable condition on the Region's SSSIs given by English Nature were overgrazing and unsympathetic burning practices on upland sites. Actions are underway to address these issues and so it is expected that there will be an increase in the area of land in favourable condition in future.

**Target:**

Ensure that 95% of the area of Sites of Special Scientific Interest (SSSIs) in the Region is maintained in, or recovering towards, favourable condition by 2010.

**Data source:**

English Nature.

**Links to indicators in the EBS:**

Headline indicator H2: Condition of Sites of Special Scientific Interest.

Indicator A2: Condition of farmland SSSIs; Indicator W2: Condition of water and wetland SSSIs in England; Indicator F2: Condition of woodland SSSIs in England; T2: Condition of SSSIs in urban areas; M4: Condition of coastal SSSIs in England; L1: Condition of SSSIs in local authority ownership; B1: The condition of SSSIs in company ownership.

**INDICATOR 6: Changes to condition of local Wildlife Sites****Reason for indicator:**

Local Wildlife Sites (County Wildlife Sites and Sites of Nature Conservation Importance) represent some of the most important land for wildlife outside of the statutory SSSI system and so are of vital importance in maintaining the overall biodiversity resource of the Region. While not receiving any statutory recognition these sites are afforded some protection from development under policies listed in local authority development plans.

Changes to the condition of these sites is a barometer of the effectiveness of the planning system and of nature conservation effort in the wider countryside. Changes to local Wildlife Sites can be negative (for example loss or damage to sites through development, agricultural improvement, neglect or inappropriate management) or positive (for example when sites are entered into management regimes that protect or enhance their interest). When reporting on this indicator the North East Biodiversity Forum will consider both types of change.

There are currently six different local Wildlife Site systems in operation within the Region (covering County Durham; Tees Valley; City of Sunderland; South Tyneside; Gateshead; and Northumberland, North Tyneside and Newcastle). Defra is currently producing national guidelines for how such sites should be set up and operated.



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**Current status:**

No comprehensive data is currently available about the loss and damage to local Wildlife Sites within the North East, although several important sites are known to have disappeared through development, agriculture or neglect, while others are now being managed through agri-environment schemes.

**Targets:**

By 2008 have local Wildlife Sites systems in operation across the whole of the Region that conform to Defra guidelines.

Secure favourable management on 40% of local Wildlife Sites identified in development plans by 2010, and of 100% of sites by 2015.

On an annual basis, ensure that there is no net loss of local Wildlife Sites to development without appropriate compensation/mitigation.

**Data sources:**

Data on changes to the status of sites will be provided by the lead organisation for each of the Region's local Wildlife Sites systems and collated by the North East Biodiversity Forum. It may not be feasible to collect comprehensive information about this target; however, the North East Biodiversity Forum believes that sufficient information should be available to give a representative picture when reporting on this indicator.

**Links to indicators in the EBS:**

No direct links but as local Wildlife Sites form an important part of the Region's resource of UK Biodiversity Action Plan priority habitats, there will be indirect links to Headline indicator H3: Status of Biodiversity Action Plan priority species and habitats in England.

**INDICATOR 7: Progress towards meeting the North East Region's biodiversity commitments as defined by the Regional Biodiversity Targets****Reason for indicator:**

An important measure of the success of conserving the biodiversity resource of the Region is how the status of its key habitats and species is changing. The best way to measure these changes is by reference to progress being made in achieving the targets for particular habitats and species set out in the Regional biodiversity targets (shown in Part 2 of this document).

In reporting on this indicator we will look at:

- Overall progress on Regional biodiversity targets
- Progress on targets for farmland habitats and species
- Progress on targets for wetland habitats and species
- Progress on woodland and forestry habitats and species
- Progress on coastal and marine habitats and species

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This will reflect the separate indicators for different sectors contained in the England Biodiversity Strategy.

**Current status:**

A complete analysis of progress in each of the Regional biodiversity targets has yet to be made.

**Data sources:**

Progress towards targets will be reported on through the national Biodiversity Action Reporting System (BARS) that will be available from 2004.

**Links to indicators in the EBS:**

Headline indicator H7: Progress with implementation of local Biodiversity Action Plans.

A3: Status of farmland BAP priority species and habitats; W3: Status of water and wetland BAP priority species and habitats; F3: Status of woodland BAP priority species and habitats; M3: Status of coastal and marine BAP priority species and habitats.

## **INDICATOR 8: Marine fish stocks fished within safe biological limits**

**Reason for indicator:**

Populations of fish and shellfish need to be maintained at a sustainable level to ensure healthy marine ecosystems and a sustainable fishing industry; fish and shellfish are a vital component of the marine food chain as well as being a source of food and employment for people. Only 29% of fish stocks in UK waters are currently fished within safe biological limits, as defined by the International Council for Exploration of the Seas (ICES).

On a regional basis, fish species with stocks below safe biological limits include cod, herring, mackerel, plaice, saithe and sole. The common skate is now extremely rare in the North Sea. At current rates of exploitation, only 4% of fish aged one will survive to the age of four, the age at which they are old enough to breed.

**Current status:**

The North Sea harbours an intensive fishing industry and is one of the most productive fishing grounds in the world with an annual harvest of 2-3 million tonnes. Stocks of herring and mackerel collapsed in the 1970s. Mackerel catches remain low whilst herring is slowly recovering, following a total ban in 1995. Plaice, haddock, sole and hake are in steep decline whilst cod and haddock are at historically low levels. In 2002, there were 70,000 tonnes of cod in the North Sea compared with 250,000 tonnes in the 1960s. The common skate, formerly considered a common species in the North East Region's coastal waters had, by 1980, been fished beyond sustainable levels and, even then, was rarely seen.

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**Data sources:**

Inshore fisheries (up to six miles offshore) can be measured and controlled as catches. These fisheries are monitored by the Sea Fisheries Committees and by the Environment Agency (with regard to salmon, trout and eels). Deep sea fisheries can only be influenced as quotas set nationally or internationally.

Fisheries within European waters are monitored as discrete areas (known as ICES boxes) defined by the International Council for Exploration of the Seas who act as advisor to the European Union. A judgement on whether an individual ICES box is being fished within safe biological limits is made annually by the Centre for Environmental Fisheries, Aquaculture and Science (CEFAS) and by ICES.

**Links to indicators in the EBS:**

Headline indicator H6: UK fish stocks fished to within safe limits.

**INDICATOR 9: Area of land in the North East managed under agri-environment agreements****Reason for indicator:**

Agri-environment schemes provide payments to farmers to protect and enhance biodiversity, landscapes and historic features. Such schemes include Defra's Countryside Stewardship Scheme and Environmentally Sensitive Area (ESA) Scheme, English Nature's Wildlife Enhancement Scheme (WES), and the Forestry Commission's Woodland Grant Scheme (WGS). Defra are currently reviewing the provision of agri-environment schemes in England. It is likely that a new restructured scheme will be introduced to take the place of Countryside Stewardship (and possibly WES) and that a new 'entry-level' scheme will be introduced to ensure minimum environmental standards.

**Current status:**

Within the North East there are currently 189535 ha of land managed under the Countryside Stewardship Scheme, 15293 ha managed under ESA agreements, 35972 ha managed under the Wildlife Enhancement Scheme, and 22916 ha managed under Woodland Grant Scheme. Uptake of schemes is predicted to rise in future.

**Data sources:**

Defra RDS will provide data on uptake of Countryside Stewardship and ESA Schemes (and any schemes that may replace them). English Nature will provide information about the Wildlife Enhancement Scheme. Forestry Commission will provide data on the Woodland Grant Scheme.

**Links to indicators in the EBS:**

H4: Area of land under agri-environment scheme management.

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## **INDICATOR 10: Area of ancient woodland under sustainable management**

### **Reason for indicator:**

Ancient woodlands are areas that have been continually wooded since 1600. They fall into two types – ancient semi-natural woodlands, in which the natural tree cover has been maintained, and replanted ancient woodland, in which the original canopy has been felled and replanted. Such sites are an irreplaceable wildlife asset, often very rich in plants and animals, and so it is essential that the stock of ancient woodland is managed in an appropriate way to maintain its biodiversity.

The Forestry Commission has set out standards and provides grants for the sustainable management of woodlands in the UK. The area of ancient woodlands being managed in this way is a clear indicator of how well sustainable woodland management is contributing to biodiversity gain.

### **Current status:**

Within the North East there are currently 3982 hectares of ancient semi-natural woodland and 4611 hectares of planted ancient woodland. Of this, 1303 hectares of ancient semi-natural woodland, and 1303 hectares of planted ancient woodland, are within a management agreement with the Forestry Commission. In addition, there will be small areas of woodland that are being managed on a sustainable basis without the benefit of any FC grant or felling licence (for example, under Section 39 agreements in the Northumberland National Park).

### **Data sources:**

Comprehensive data on the area of ancient woodland that is being managed in a sustainable manner is not readily available. The Forestry Commission are seeking to collect this information in future.

### **Links to indicators in the EBS:**

F5: Area of ancient woodland in England.

## **INDICATOR 11: Integration of biodiversity into local authority functions**

### **Reason for indicator:**

Local authorities have a key role to play in the successful delivery of local Biodiversity Action Plans. Due to their wide range of statutory responsibilities their actions can have a major bearing on the success of local BAPs and consequently on the delivery of regional and national biodiversity targets. There are four main ways in which this can be achieved:

- (i) By recognising biodiversity conservation as a key component for achieving sustainability and including biodiversity policies and targets within statutory Development Plans.

The land use planning process has a major impact on the delivery of biodiversity targets within the Region. The inclusion of appropriate policies within Development Plans can ensure that the existing biodiversity resource within a local authority district is given adequate protection and that any biodiversity gain acquired as part of the planning process properly reflects the priorities and objectives of the local Biodiversity Action Plan.

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- (ii) By making biodiversity and the delivery of local Biodiversity Action Plans an integral part of their Community Strategy.

Section 4 of the Local Government Act (2000) places a statutory duty on local authorities to prepare an overarching Community Strategy for the economic, social and environmental well-being of their area. The development of Community Strategies provides a significant opportunity for local authorities to incorporate biodiversity into all aspects of community development. Local Biodiversity Action Plans (LBAPs) identify local biodiversity priorities and can be used to determine the contribution that local partnerships can make in protecting the biodiversity of their area. Local BAPs are amongst the elements that local authorities should build upon when preparing their Community Strategy and are amongst the plans expected to be 'subsumed' into Community Strategies as part of the Government's rationalisation process. LBAPs therefore need to be considered with Community Strategies, and Community Strategies as a whole should be informed by the purposes of LBAPs (Government Circular on Plan Rationalisation, July 2003). The Government has a target that all Community Strategies contain biodiversity elements within five years.

- (iii) Offering tangible support to local Biodiversity Partnership, for example through financial commitment, or support in kind.
- (iv) Managing their landholdings in a way that will maintain or enhance its biodiversity value.

Local authorities own thousands of hectares of land, some of which is protected by national and international nature conservation designations but the majority has no formal designation. There is an enormous potential for action on local authority land, in habitats such as roadside verges, cemeteries and graveyards, parks and open spaces, school grounds and residential land.

When reporting on this indicator, the North East Biodiversity Forum will examine each of these four elements separately.

**Current status:**

While all the Development Plans within the Region currently contain policies regarding the protection of SSSIs, coverage of other biodiversity issues such as protected species, local Wildlife Sites and local BAPs is much more variable and more work remains to be done.

As of October 2003, English Nature estimated that only approximately 25% of Community Strategies within the Region incorporated biodiversity and local BAPs.

English Nature estimate that only 16 out of 25 local authorities within the North East offered tangible support to their local BAP Partnership.

No data is currently available about the extent of management of local authority landholdings for the benefit of biodiversity.

**Targets:**

Ensure that 100% of all Community Strategies in the North East Region meet Government guidance by incorporating biodiversity delivery by end of 2005.

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75% of all local authorities to offer tangible support to their local Biodiversity Partnership by 2004, 100% by 2006.

By 2005, the North East Biodiversity Forum to produce a template biodiversity checklist that can be incorporated into planning application forms by local authorities. Have all local authorities using biodiversity checklist by 2010.

**Data sources:**

Local BAPs, local authorities.

**Links to indicators in the EBS:**

T5: Structure Plans and Unitary Development Plans with biodiversity policies and targets.

L2: Community Strategies with biodiversity policies and plans.

**INDICATOR 12: Number of businesses contributing to local Biodiversity Action Plans (LBAPs)**

**Reasons for indicator:**

The involvement of the businesses sector is of great importance if the Region is to achieve its BAP targets. In particular, action by business is necessary if the full potential of local biodiversity partnerships is to be realised.

Businesses can contribute to local biodiversity partnerships in a variety of ways including:

- Membership of steering groups
- Funding of both projects and core partnership costs
- Incorporation of key targets and objectives in company plans and policies
- Direct action towards achievement of key targets and objectives

**Current status:**

The latest report by local biodiversity partnerships on progress with their plans published in May 2002 shows that nationally, 50 different businesses are involved in just over half of local partnerships in England. Within the North East Region four out of five local BAPs contain a business member on their Steering Group. A number of businesses have also been involved in the work of local BAPs by sponsoring projects or by taking part in 'challenge events' during North East Business and Biodiversity Week, in 2002.

**Targets:**

All local BAPs to have business representation on their Steering Group by 2005.

20 businesses within the Region contributing to local BAPs by 2005, increasing to 50 by 2007.

Five businesses within the Region to have their own company Biodiversity Action Plan or biodiversity strategy by 2005, increasing to 10 by 2007.

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**Data sources:**

Local Biodiversity Action Plan partnerships. Data will also be taken off BARS. The indicator for business contribution to local BAPs contained in the England Biodiversity Strategy is to be developed further to enable an assessment of business involvement with direction of partnerships, and the contribution of companies towards implementation of local partnerships, objectives and targets. The EBS indicator will be updated every three years, and the North East indicator will also be adjusted as necessary.

**Links to indicators in the EBS:**

B3: Company contribution to Local Biodiversity Action Plans.

**INDICATOR 13: Extent of BAP habitat created, restored or enhanced as a result of building or regeneration projects in the Region****Reason for indicator:**

The Regional Environmental Strategy recognises the Region's natural environment, landscape, historical and built environment as key economic assets. Opportunities arising from investment can be used to protect and enhance these assets. The Region is committed to developing a programme of flagship, environment-led, integrated regeneration projects and assistance with developing funding packages for their delivery. This will involve regional and sub-regional partnerships within the Environment Sector Group.

Investment in regional infrastructure and capital projects has the potential to deliver biodiversity e.g. through imaginative site design/layout. Environmental sustainability is a 'cross-cutting theme' for major funding sources and the appraisal process offers an opportunity to assess the contribution made to biodiversity.

**Current status:**

No information is yet available.

**Targets:**

By 2006 have within the Region a flagship, biodiversity led, regeneration project.

200 ha of BAP habitats to be created, restored or enhanced through building or regeneration projects by 2006, with an additional 200 ha created by 2010.

**Data sources:**

One NorthEast, Local BAPs, local authorities. Data will also be available from the Biodiversity Action Reporting System (BARS).

**Links to indicators in the EBS:**

No direct links but creation of BAP habitats will contribute to Headline indicator H3: Status of Biodiversity Action Plan priority species and habitats in England.

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**INDICATOR 14: Number of visitors to nature reserves in the North East Region****Reason for indicator:**

Tourism is a major sector in the North East economy, accounting for 7% of regional employment in 1995. Future sustainable development of nature-based tourism is seen as a key contributor to regeneration of rural and urban communities.

The number of visitors to nature reserves in the North East Region shows the value of natural assets to social and economic activity. The tourism industry recognises that the attractiveness of a region to visitors is linked to local distinctiveness and that this distinctiveness owes much to wildlife and natural features. The demand for wildlife and geo-tourism has grown in the last 25 years and is anticipated to continue. In 1998, nearly 21 million day visits were made to wildlife attractions in England with 10 million of these to National Nature Reserves.

The Regional Environment Strategy proposes the provision of strong support for sensitive economic exploitation of natural assets through green tourism and creative industries.

**Current status:**

No data about visitor numbers to the Region's nature reserves is yet available.

**Data sources:**

Data for this indicator will be collected through public surveys.

**Links to indicators in the EBS:**

P1: Number of visits to nature reserves in England.

**INDICATOR 15: Availability of accessible natural greenspaces across the Region as defined by English Nature's report on *Accessible Natural Greenspace Standards in Towns and Cities* (Spring 2002)****Reason for indicator:**

Accessible natural greenspace is defined as land, water or geological features which have been naturally colonised by animals and plants and which are accessible to people on foot.

Accessibility is affected by factors such as distance from home and barriers such as busy roads as well as social and cultural matters.

Such greenspaces are important to the quality of life for local people, for example, through attracting inward investment by improving the image of the area and also contribute to biodiversity gain. Examples of greenspaces include country parks, formal parks, Local Nature Reserves and wildlife corridors such as linear walkways and canals.

**Current status:**

There is currently 1484 ha of land designated as Local Nature Reserve (LNR) within the Region. More LNR designation is being planned and this figure is therefore expected to rise.



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**Targets:**

By 2010 ensure that all urban dwellers have an area of accessible natural greenspace within 300 metres of their home.

Designate in each local authority area, 1 ha of Local Nature Reserve (LNR) per 1000 population by 2010.

**Data sources:**

English Nature will collate information on the area and location of Local Nature Reserves. Information on other types of greenspace will be available from local authorities.

**Links to indicators in the EBS:**

T4 : Ease of access to local greenspace and the countryside.

**INDICATOR 16: Public attitudes to biodiversity****Reason for indicator:**

The general public play an important role in championing wildlife conservation and in supporting action that helps to increase biodiversity. There is much evidence to suggest that broad sectors of society have little knowledge of or direct interaction with biodiversity or related issues. The term 'biodiversity' was introduced to public policy at the Earth Summit in Rio in 1992. It remains an unfamiliar word even though it refers to a familiar concept i.e. the variety of life.

If people do not understand biodiversity, they will not have an appreciation or concern for its conservation and will, therefore be unlikely to take action that leads to biodiversity gain.

**Current status:**

An England-wide survey by Defra in 2001, found that 26% of respondents were 'aware' of the term 'biodiversity', but did not say whether or not the respondents understood the concept. The same survey showed that 50% of respondents expressed concern about the loss of wildlife in the UK. As yet there has been no specific survey of attitudes to wildlife and biodiversity within the North East.

**Data sources:**

Defra will carry out another survey of public attitudes to biodiversity in England in 2005. The North East Biodiversity Forum hopes to conduct its own survey into public attitudes within the Region on a triennial basis.

**Links to indicators in the EBS:**

Headline indicator H8: Public attitudes to biodiversity.

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## INDICATOR 17: Volunteer time spent in conservation activity

### Reason for indicator:

Public support and participation is vital to the success of attempts to conserve wildlife. The understanding and appeal of biodiversity needs to be broadened and made relevant to all sectors of our communities. The number of people volunteering to assist in countryside or conservation work, and the amount of time they are willing to contribute, is a direct indicator of commitment and understanding.

Most organisations concerned with nature conservation use volunteers to a greater or lesser degree. Volunteers are mainly used for practical conservation management tasks (such as tree planting or nature reserve management) but may also be involved in office based work or in ecological surveys.

### Current status:

No information is yet available for this indicator.

### Data sources:

Data on volunteer numbers and hours will be collated by the North East Biodiversity Forum from information provided by the organisations represented on the Forum. While this data will not be comprehensive, it should be representative of the volunteer activity in the Region.

### Links to indicators in the EBS:

P2: Volunteer time spent in conservation activity.



*Volunteers building a wheelchair ramp at Joe's Pond*

# PART 2

Biodiversity Targets  
for the North East of England

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## INTRODUCTION TO THE BIODIVERSITY TARGETS

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The process of producing biodiversity targets was initiated by the UK Biodiversity Action Plan (UK BAP). This was published as part of the Government's commitment to the Convention on Biological Diversity, signed by the UK Prime Minister and over 150 other heads of Government at the 1992 Rio Earth Summit. The UK Biodiversity Action Plan was published in 1994, together with a series of documents detailing action plans for habitats and species of importance in a national context ('priority habitats and species'). These plans, and the national targets that they contain, have been subject to wide consultation and agreement.

The targets given in this section are derived from the national targets and represent the minimum contribution that the North East Region needs to make in order for the overall UK targets to be met. Targets have been produced for all UK BAP Priority habitats and for a selection of Priority species. UK Priority species have not been included where it is thought that the necessary actions required to meet the national targets are covered sufficiently by either the national action plan itself, or by habitat targets elsewhere in this document.

In addition to the UK BAP Priority habitats and species, targets have been produced for a number of the Regionally important habitats and species identified in *A Biodiversity Audit of the North East*, published by the North East Biodiversity Forum in 2001. The absence of the remaining habitats and species identified in the audit does not signify that they are of no importance, but rather that their conservation requirements do not sufficiently require specific action beyond the targets already produced.

### Monitoring of Targets

A national monitoring system for BAP activity, the Biodiversity Action Reporting System (BARS), is currently under development and will be launched in 2004. This should allow progress on most of the targets listed below to be assessed and quantified. For a limited number of the targets, information may also have to be gathered from other national recording schemes or directly from relevant organisations.

Progress on all targets will be measured from 1995, the date of the first tranche of UK Action Plans. In some cases a single action may 'count' towards more than one target, for example, action to improve riverbanks might be reported as delivery against the targets for rivers and streams, otter and white-clawed crayfish.

Baseline data for monitoring targets will be taken from the information contained in *A Biodiversity Audit of the North East*. Other information sources are referenced under the relevant targets.

The North East Biodiversity Forum will keep the targets under constant review and update them as necessary. A triennial 'State of the Region' will be produced that will outline progress towards meeting the targets.

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## Favourable Management

The outcome of a number of these targets is to ensure that a particular habitat is in 'favourable management'. Favourable management should be taken to mean that a particular habitat is being managed in such a way that it will achieve, be maintained in, or recovering towards favourable condition as defined by the UK Common Standards produced by JNCC (see page 28 on favourable condition for more information). It is not intended to assess the condition of large tracts of land when monitoring progress on these targets. Instead an assessment will be made as to whether the management regimes in place are likely to produce the desired habitat condition.

## Delivery of the Targets

Local Biodiversity Action Plans (LBAPs) will form the primary mechanism for achieving both the UK BAP targets and these Regional targets. There are currently six local BAPs within the North East and these cover the whole of the Region. LBAPs identify and set targets for UK priority habitats and species within their areas and also for other habitats and species of local importance. These Regional BAP targets form a natural link between the local and national BAP process.



*Great crested newt*

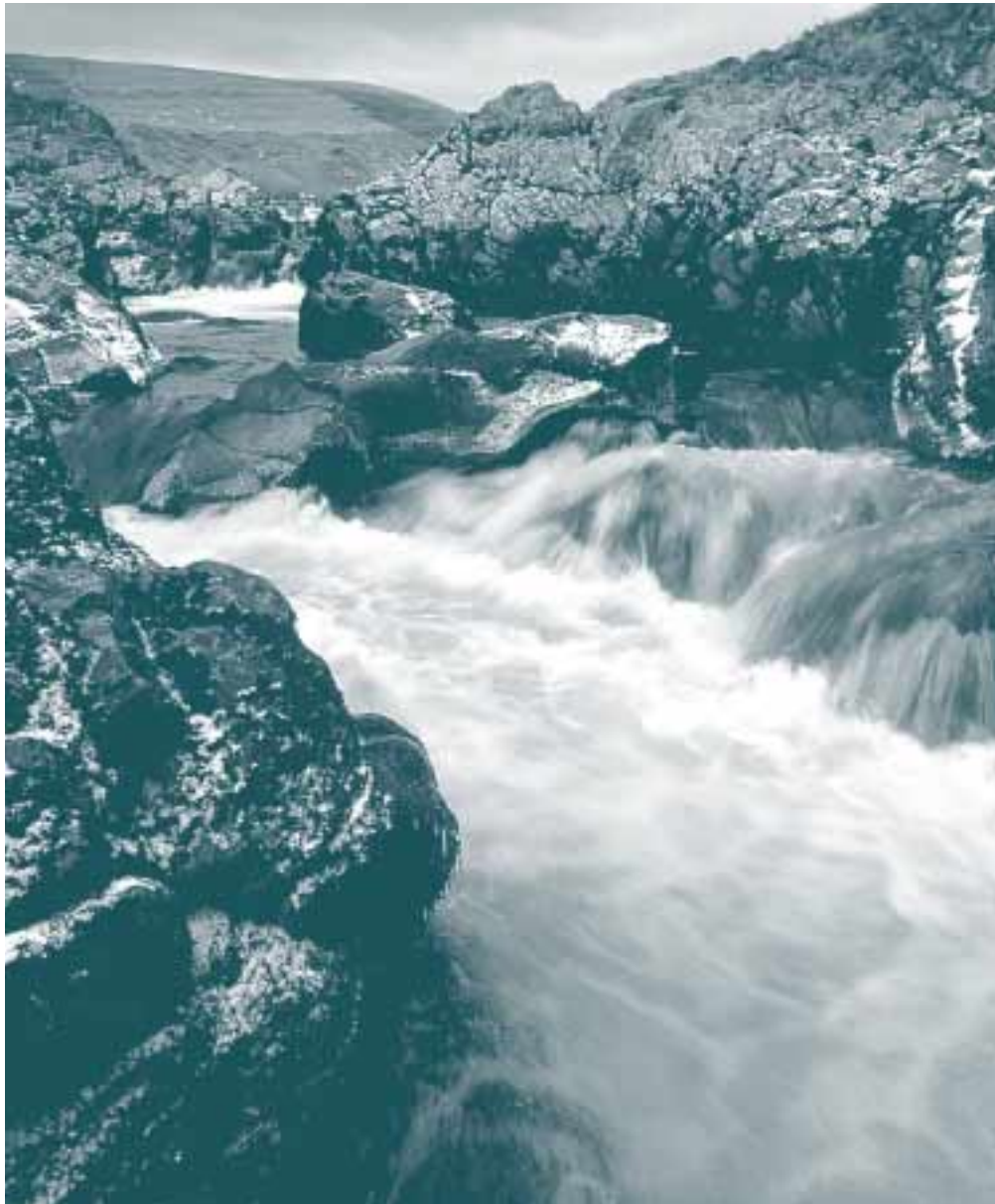
# 1. HABITATS

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In addition to the targets given below, there is an overarching target covering all of the relevant habitat types. This is:

**Ensure that 95% of the area of Sites of Special Scientific Interest (SSSIs) in the Region is maintained in or recovering towards favourable condition by 2010**

*Note on favourable condition:* Condition of SSSIs is assessed using common standards agreed at a UK level. For every habitat type there exists a set methodology for assessing condition. These methodologies are based around a number of habitat attributes, each of which has certain targets attached to it. For example, attributes that the condition of grasslands are assessed against include, sward height, herb:grass ratio, and cover of scrub. When the habitat attributes do not meet the specified targets then they are assessed as being in unfavourable condition. Condition of SSSIs is assessed on a six-year cycle by English Nature.



*River Coquet, Northumberland*

## 1.1 UK BAP HABITATS

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The targets listed below deal largely with the restoration and expansion of individual habitats. In addition to these there is an overarching maintenance target:

**On an annual basis, ensure that there is no loss in the extent or quality of the North East Region's existing resource of UK BAP habitats.**

This takes precedent over the targets for restoration and expansion. While the maintenance target is relevant to all UK BAP priority types it is of particular relevance to the grassland and maritime habitat types, as these are thought to be under particular threat of loss.

### **Lowland calcareous grassland**

Produce a provisional inventory of lowland calcareous grasslands of conservation value by 2004. Update annually as new information becomes available.

Outside of SSSIs, secure favourable management on 30% of the remaining habitat resource by 2005, and 100% of the resource by 2010.

Create at least 200 ha of calcareous grassland of nature conservation value by 2010.

### **Lowland dry acid grassland**

Produce a provisional inventory of remaining lowland dry acid grassland sites of conservation value by 2004. Update annually as new information becomes available.

Outside of SSSIs, secure favourable management on 30% of the remaining habitat resource by 2005, and 100% of the resource by 2010.

Create at least 10 ha of lowland dry acid grassland of conservation value by 2010.

### **Lowland hay meadows**

Produce a provisional inventory of remaining areas of neutral grassland of conservation value by 2004. Update annually as new information becomes available.

Outside of SSSIs, secure favourable management on 30% of remaining habitat resource by 2004, and 100% of the resource by 2010.

Create at least 50 ha of lowland neutral grassland of nature conservation value by 2010.

### **Coastal and floodplain grazing marsh**

Produce a provisional inventory of coastal and floodplain grazing marsh sites by 2005. Update annually as new information becomes available.

Restore 30 ha of degraded grazing marsh through management regimes by 2010.

Create at least 15 ha of new grazing marsh by 2010.

### **Lowland heathland**

Secure favourable management on remaining lowland heathland by 2010.

Create at least 100 ha of lowland heathland by 2010.

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### **Cereal field margins**

By 2010 have at least 5% of the regions arable land managed under agri-environment scheme options that will maintain, increase or restore their biodiversity value.

### **Upland oak woodland**

Restore\* through management at least 400 ha of damaged/degraded upland oak woodland by 2010.

Increase\*\* total area of upland oak woodland by at least 1000 ha through planting and natural regeneration by 2015, principally through expansion of existing sites.

### **Upland mixed ashwoods**

Restore\* through management at least 200 ha of damaged/degraded upland mixed ashwoods by 2010.

Increase\*\* total area of upland mixed ashwoods by at least 600 ha through planting and natural regeneration by 2015.

### **Wet woodland**

Restore\* through management at least 100 ha of damaged/degraded wet woodland by 2010.

Increase\*\* the total area of wet woodland by at least 400 ha through planting and natural regeneration by 2015.

### **Lowland wood pasture and parkland**

Agree and implement restoration plans for at least 25 ha of former or degraded parkland/wood pasture by 2010.

By 2005, identify parkland/wood pasture sites suitable for expansion. Initiate expansion on two key sites by 2010.

### **Lowland mixed deciduous woodland**

Restore\* through management at least 400 ha of locally native damaged/degraded lowland mixed deciduous woodland by 2010.

Increase\*\* total area of lowland mixed deciduous woodland by at least 800 ha through planting and natural regeneration by 2015.

### **Ancient and/or species-rich hedgerows**

Produce provisional inventory of ancient and/or species-rich hedgerows within the Region by 2004. Update annually as new information becomes available.

Secure appropriate management of 50% of the known resource by 2005, and 100% of the known resource by 2010.

\* Restoration includes both the restoration of ancient woodland sites back to native species and the improvement of ancient semi-natural woodlands to favourable condition through appropriate management.

\*\* Increase includes both woodland creation on bare ground and the re-stocking with native species of plantations that are not categorised as planted ancient woodlands.



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### **Reedbeds**

Identify and rehabilitate at least 20 ha of *Phragmites* reed in key areas by 2010.

Create at least 50 ha of new reedbed habitat by 2010, one of a minimum 10 ha and the remainder each of a minimum 2 ha size.

### **Fens**

Identify priority fen sites for restoration by 2004. Initiate restoration of priority sites by 2005.

Ensure appropriate water quality and water quantity for the continued viability of all SSSI fens by 2005.

### **Lowland raised bog**

Identify areas of and assess feasibility of restoring areas of lowland raised bog not notified as SSSIs by 2007. Initiate implementation of any such restoration measures by 2010.

### **Blanket bog**

Have management in place that will result in 30% of the Region's blanket bog achieving a favourable or recovering condition by 2010.

Have management in place that will result in 75% of the Region's blanket bog achieving a favourable or recovering condition by 2020.

(Note: Favourable or recovering condition will be assessed using English Nature methodology for SSSIs).

### **Purple moor-grass and rush pasture**

Outside of SSSIs, secure favourable management on 30% of the remaining habitat resource by 2005, and 100% of the resource by 2010.

Create at least 5 ha of purple moor-grass or rush pasture at targeted sites by 2010.

### **Upland heathland**

By 2010 restore dwarf-shrub heath cover to greater than 25% on at least 4500 ha of acid grassland, where cover of dwarf shrubs has been reduced or degraded.

Increase area of upland heathland in the Region by at least 360 ha by 2005.

### **Upland calcareous grassland**

Secure favourable management on at least 210 ha of upland calcareous grassland by 2010.

Create at least 5 ha of upland calcareous grassland in targeted locations by 2010. Particular attention to be paid to linking or enlarging fragmented sites.

### **Upland hay meadows**

Secure favourable management on 30% of sites by 2005, and 100% of sites by 2010.

Create 25 ha of upland hay meadow at targeted sites by 2010.

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### **Mesotrophic lakes**

By 2005 begin restoration of mesotrophic lakes that have been damaged by human activities.

### **Eutrophic standing waters**

Identify the full extent of eutrophic standing waters within the Region by 2004, and identify sites being damaged by human activity.

By 2005 begin restoration of sites that have been damaged by human activity.

### **Maritime cliffs and slopes**

Secure favourable management of all cliff-top and slope vegetation by 2015.

Increase the area of natural cliff-top or slope vegetation by at least 10 ha by 2010.

### **Coastal sand dunes**

Secure favourable management of at least 285 ha of degraded dune grassland or dune heath by 2010.

Re-establish at least 40 ha of dune vegetation at locations where it has been lost to other land uses or to erosion by 2010.

### **Coastal saltmarsh**

Secure favourable management of all areas of saltmarsh by 2010.

Create at least 5 ha of new saltmarsh in intertidal areas to offset predicted losses due to rising sea levels by 2005. Create a further 5 ha by 2010.

### **Mudflats**

Identify opportunities to create or enhance 100 ha of intertidal flat by 2010.

Implement creation plans by 2020.

Address historic pollution of mudflats by ensuring that 90% of all mudflat has overlying water quality of GQA C or better by 2010.

### **Saline lagoons**

Create an additional 10 ha of saline lagoon by 2010.



*Grey seals, Farne Islands*

## 1.2 OTHER REGIONALLY IMPORTANT HABITATS

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### Sea-grass beds

Assess the feasibility of expanding existing sea-grass beds at Lindisfarne by 2010.

### Rivers and streams

Achieve good (class A or B) Biological Water Quality on 91% of watercourses in the region by the 2010 General Quality Assessment.

Achieve riparian improvements that will benefit wildlife on 50 km of riverbank by 2010.

### Urban managed greenspaces

Have designated in each district authority and unitary authority area, 1 ha of Local Nature Reserve (LNR) per 1000 population by 2010.

By 2010 ensure that all urban dwellers will have an area of accessible natural greenspace within 300 metres of their home.

Ensure that 50% of schools have nature conservation areas by 2006, 100% by 2011.

Ensure that 50% of parks and open spaces, within local authority management, contain areas managed in a wildlife friendly manner that will contribute to local BAP targets by 2006, 100% by 2011.

By 2007 identify or establish six parks within the North East that can be used as case studies for good biodiversity practice.

### Post-industrial land

By 2004 establish and publicise eight sites within the North East that can be used as case studies for delivery of LBAP objectives through the development/restoration of brownfield land.

On an annual basis, ensure that there is no net loss of colonies of dingy skipper and grayling butterflies through development/regeneration of brownfield land.

By 2005 have a net gain of five new dingy skipper colonies on post-industrial land.

### Calaminarian grasslands

Produce a provisional inventory of calaminarian grassland sites by 2004.

Secure favourable management of all existing calaminarian grassland sites by 2008.

Identify any additional sites capable of restoration to calaminarian grassland by 2008, and implement restoration measures by 2010.

Note: Calaminarian grasslands are grasslands that occur on soils and gravels contaminated by heavy metals such as zinc and, as a result, support a specialised flora.



*Grayling butterfly*

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### **Upland acid grasslands**

Identify key areas of upland acid grassland of importance to breeding birds by 2005.

Secure management on identified sites that will maintain, achieve or enhance conditions for upland breeding birds by 2008.

Increase the number of waders breeding on inbye land in the North Pennines by 20% by 2010.

(Baseline information on the land use by breeding waders in the North Pennines to be provided by English Nature).

### **Ponds**

Produce provisional inventory of ponds (excluding small domestic ponds) by 2004.

Undertake management that will enhance the biodiversity value of 100 ponds by 2010.

Create 400 new ponds of conservation value in appropriate areas by 2010, with emphasis given to providing stepping stones between existing ponds of particular wildlife value.



*Joe's Pond, Houghton-le-Spring, Tyne & Wear*

## 2.1 UK BAP PRIORITY SPECIES

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### **Water vole**

Establish baseline data on distribution of water voles within the North East by 2005.

By 2006 and on an annual basis thereafter, maintain the viability of existing water vole populations in the North East.

Re-establish water voles at 50 unoccupied sites by 2010.

### **Otter**

By 2010, restore breeding otters to all catchments and coastal areas where they have been recorded since 1960.

(Data on distribution of otters within Region to be provided by the Wildlife Trusts).

### **Red squirrel**

By 2005 identify priority sites for red squirrel conservation where viable populations can be maintained and protected in the long term through appropriate management.

(NB: A full red squirrel Species Action Plan for North East England has been produced by the Northumberland Wildlife Trust).

### **Farmland bird species (reed bunting, tree sparrow, corn bunting, linnet, spotted flycatcher, bullfinch, skylark)**

By 2006 have in place a North East bird monitoring scheme that will enable a Regional Breeding Bird Survey index to be produced.

From 2004, and on an annual basis thereafter, ensure that populations of farmland birds on land managed through the arable options of Countryside Stewardship are maintained or increasing.

(Note: These are interim targets that will be revised once a baseline Breeding Bird Survey index for the Region has been produced).

### **Black grouse**

Achieve re-colonisation of at least one formerly occupied area between currently isolated populations by 2005.

Restore the range of black grouse to its 1988-91 extent by 2011 as measured by BTO surveys.

By 2011 restore population of black grouse within the North East to at least its 1996 level.

### **Great crested newt**

Establish baseline data on great crested newt colonies within the North East by 2005.

Ensure that by 2006 50% of known great crested newt breeding sites are managed in a way appropriate to maintaining their viability, 100% by 2010.



*Water vole*



*Linnet*

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### **Freshwater pearl mussel**

Undertake a study of the feasibility of establishing effective recruitment of the currently senescent populations of freshwater pearl mussel by 2005.

If feasibility study shows that enhancement of populations is viable then initiate action by 2007.

(Baseline data on freshwater pearl mussel colonies held by Environment Agency).

### **White-clawed crayfish**

Halt decline in geographical distribution of this species due to factors other than crayfish plague by 2004.

Undertake 10 km of riparian habitat improvements in priority areas for white-clawed crayfish by 2006.

Undertake study to assess the feasibility of re-introducing white-clawed crayfish to river systems from which they have been lost by 2006.

If feasibility study reports that re-introduction is possible, initiate action by 2008.

(Baseline data on populations of white-clawed crayfish to be taken from Environment Agency database).

### **Dark bordered beauty moth**

Identify existing dark bordered beauty sites by 2005.

Ensure that by 2008 all sites for dark bordered beauty receive management appropriate to maintain the species.

Restore suitable habitat for breeding dark bordered beauty on two sites by 2010.

### **Juniper**

By 2008 double the number of viable native juniper bushes within the Region.

By 2008 expand populations of all existing juniper populations by 30%. Re-establish populations of native stock juniper on 10 historic sites from which it has been lost by 2008.

(Baseline data for measuring progress on targets will be taken from English Nature Research Report number 152: *The Conservation of juniper in Northumbria*. Clifton, Ranner and Ward 1995).

### **Northern brown argus butterfly**

By 2005 ensure that all sites supporting breeding colonies of northern brown argus receive management appropriate to maintaining the species.

Establish an additional two sustainable breeding populations of northern brown argus at suitable sites by re-introduction or natural colonisation by 2008.

(Baseline data on existing colonies available from Butterfly Conservation).

NB: Butterfly Conservation have produced a Regional Action Plan for this species.



*White-clawed crayfish*

## 2.2 OTHER REGIONALLY IMPORTANT SPECIES

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### **Hen harrier**

Increase the number of successfully breeding hen harriers to 10 breeding pairs by 2008.

### **Red kite**

Re-introduce the red kite to one site within the North East by 2005.

### **Small pearl-bordered fritillary**

Ensure that by 2005 all known sites containing breeding populations of small pearl-bordered fritillary receive management appropriate to maintaining the species.

Restore habitat suitable for breeding small pearl-bordered fritillary on two sites within the former range of the species by 2010.

(baseline information on small pearl-bordered fritillary colonies available from Butterfly Conservation).

NB: A Regional Action Plan for this species has been prepared by Butterfly Conservation.

### **Large heath butterfly**

Identify core sites for large heath butterfly by 2005.

Ensure that by 2008 all core sites for large heath receive management appropriate to maintaining the species.

(baseline information on large heath butterfly available from Butterfly Conservation).

NB: A Regional Action Plan for this species has been prepared by Butterfly Conservation.



*Female hen harrier*

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## Cover Photographs

### *Front Cover*

*Green-veined white butterfly on marsh orchid*

*White-clawed crayfish*

*Pine marten*

*Hen harrier*

*Great crested newt*

*Teesmouth National Nature Reserve*

*Otter*

*Cauldron Snout, Moor House - Upper Teesdale National Nature Reserve*

### *Back Cover*

*Red squirrel*

*Shillmoor, Upper Coquetdale*

*Common rock-rose*

*Golden plover flock*

### *Photography*

*Peter C Roworth*

*Ernie Janes*

*Mark Hamblin*

*Peter Wakely / English Nature*

*Chris Gomersall*

*Craig Ralston / English Nature*

*Allan Potts*

*Stephen Davis*

*Whitfield Benson*

*Mike Hammet / English Nature*

*Laurie Ramsay*

*Neil McIntyre*

*Durham Wildlife Trust*





NORTH  
EAST  
BIODIVERSITY  
FORUM

