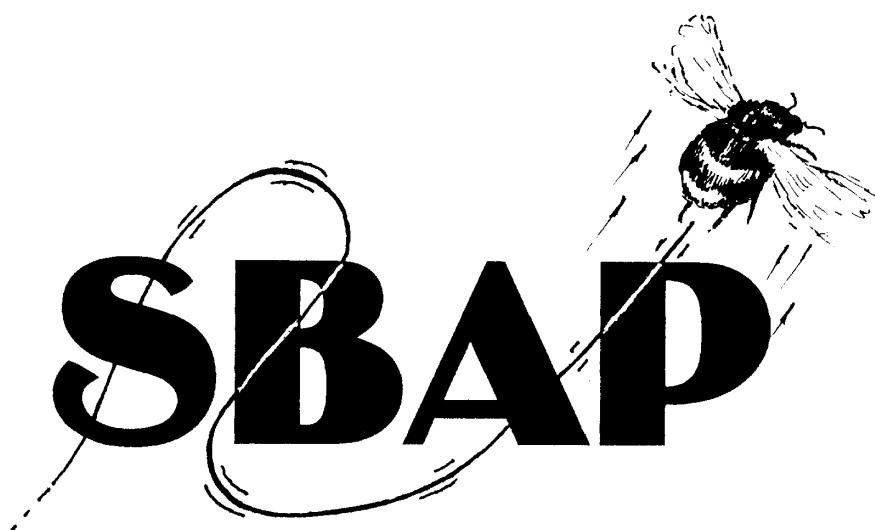


Staffordshire Biodiversity Action Plan



2nd Edition
(November 2001)

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on behalf of the
Staffordshire Biodiversity Action Plan Steering Group

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Foreword

Welcome to the 2nd Edition Staffordshire Biodiversity Action Plan (SBAP) and its new look. The SBAP has been laid out differently to the 1st Edition as all of the information is now held in an electronic format. We have, however, reproduced the Action Plans in paper format as well.

The SBAP 2nd Edition Consists of:

- 1 A paper version of the SBAP
- 2 A CD containing electronic versions of: The Staffordshire Biodiversity Action Plan 2nd Edition; SBAP Audit (updated 2001); SBAP 2000 Annual Report; SBAP 2001 Annual Report

The enclosed CD-ROM includes the BAP in several different formats as follows (with the start document to the right):

Word2000 (.DOC)	D:\word\index.doc
Adobe Acrobat® (.PDF)	D:\acrobat\index.pdf
Web Pages (.HTM)	D:\index.htm

(Where "D:" is the letter for your CD-ROM drive)

For further information and instructions please insert the CD-ROM in your Drive and select the relevant start document from the above list.

Note: the PDF files can be accessed from the web pages. The latest information is included in ReadMe.txt

Every effort has been made to ensure the CD-ROM is free of viruses, but Staffordshire Wildlife Trust and the SBAP Steering Group recommend you have an up-to-date virus-checker installed on your computer.

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The 2nd edition has seen some other changes. The species and habitats have been slimmed down and re-structured, with information such as current extent, status and key species now being presented within the Audit. The Audit also contains species not in the SBAP, such as several bat species, butterflies, dragonflies and many more. It was felt that the action plans should be as short and snappy as possible so that people could get to the required targets and actions straight away. If you require the extra information then please look in the SBAP Audit or Annual Reports on the CD.

There are also five new Species Action Plans, added as a result of further information becoming available. Two Species Action Plans, Red-eyed Damselfly and Cowslip, have now been removed as we feel that these are best catered for under appropriate Habitat Action Plans and they have been included in 'Ponds, Lakes and Canals' and 'Unimproved Grassland' Habitat Action Plans respectively.

How This Action Plan Should Be Used

The targets and objectives laid out in the SBAP should be seen as key aspirations. It is intended that this document should be used by various organisations to help produce a focused response towards furthering biodiversity in the County.

Government organisations such as DEFRA, EN, FC and EA are already committed to various aspects of Biodiversity Action Planning. Their role is to ensure that they undertake all actions that they have already 'signed up' to, and, where feasible, to provide extra support for other actions as and when applicable.

Developers, landowners, land managers and mineral / landfill operators should use this document as the key to defining what types of habitats and species should be taken into account when managing, restoring and creating wildlife habitats.

Local Authorities all have a duty towards Biodiversity and should be mindful of their duties to control environmental damage to sites that are important for biodiversity. They should also endeavour to ensure that developers are more proactive in the way they approach site development. Local Authorities also have further duties concerning public education, sustainable development and appropriate land management.

Nature conservation organisations such as BTCV, RSPB, FWAG and SWT should all use the SBAP to reach shared goals. It is the key strategy document for the management, restoration and creation of further wildlife habitat for the foreseeable future in Staffordshire.

VISION

The natural resources of Staffordshire have yielded prosperity to its many human inhabitants. More modern development has been indiscriminate and headlong, leaving many people with a physical and psychological isolation from the natural environment. There is growing demand that the damage done to landscapes and natural habitats during economic growth is now repaired. Local people seek a high quality environment and this should be the goal of sustainable development.

The Staffordshire Biodiversity Action Plan aims to address these issues. It is a project that has set most of its initial targets to be reached by 2010. As well as preventing further loss and degradation to our wild places, it aims to reverse the trends of fragmentation and isolation by enhancing areas and restoring these to semi-natural habitats. These habitats should be in such a condition as to support a host of species, both rare and common, which are characteristic of Staffordshire.

The vision of the SBAP is for a Staffordshire much richer in wildlife than it is today. This wildlife will also be more integrated with other aspects of human life. New building developments will contain wildlife-friendly balancing pools and will incorporate Sustainable Drainage Systems. Schools and businesses will have hay meadows and native woodland in their grounds. All towns will manage certain areas of land as green networks and wildlife corridors.

In the rural environment, pastoral grazing will be evident over much of the County, much of the farming being organic and less-intensive. Many meadows will be ablaze with wildflowers over the summer, and, in turn support high numbers of insects and bird life. Large arable farms will provide broad field margins and use less intensive farming methods, allowing for the skylark, grey partridge and brown hare to live alongside modern agriculture. Well-managed hedgerows will still be an integral characteristic of the farmland in the County. These will help to link up a network of farm woods and spinneys throughout the wider countryside.

The reinstatement of river valley meadows through changes in land management between now and 2010 will mean that lapwing and snipe will have returned in high numbers. Drumming snipe will be heard and lapwings seen displaying amongst the fringing wet grassland along many stretches of river in the County. The otter will continue its comeback and a stable population will be present within Staffordshire, breeding within all the river catchments in the County.

Heathland will have increased so that small, isolated sites are connected with larger areas. On the wild heath, trees are infrequent amid the heather and bilberry, but lone trees, scrub patches and grassland provide variation. In the dry heath, nightjars, adders and sand wasps multiply. Bog bush-crickets and fritillaries breed in the damper heath and black darters dragonflies can be found flying over the pools. The heathland will be grazed by itinerant livestock such as sheep and cattle.

By 2010, the direction of key policies towards the environment will have meant that sustainable development is one of the key over-arching principles governing all future decisions within the County. All further development and land-use from this time onwards will ensure that the County's wildlife interest is never again diminished.

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Introduction

What is Biodiversity?

The term biodiversity is derived from the words **biological diversity** by the entomologist Edward O. Wilson and simply refers to the variety of life. This includes the whole range of mammals, birds, reptiles, amphibians, fish, invertebrates, plants, fungi and micro-organisms. It includes both common and rare species as well as the genetic diversity within species.

Biodiversity also refers to the habitats that support these species.

The Biodiversity Convention

In June 1992, the **Earth Summit** was held in Rio de Janeiro. Over 150 countries including the United Kingdom signed the Convention on Biological Diversity. The main aim of the Convention is essentially a commitment to conserving and sustaining global biodiversity.

The UK Biodiversity Action Plan

As part of its response to the 1992 Rio Earth Summit, the government established Biodiversity Steering Group in 1994. **Biodiversity: The UK Steering Group Report** was published in 1995 and sets out national biodiversity objectives.

This report recommends that the best way forward is the production of local Biodiversity Action Plans (local BAPs). It also provides guidance for the development of local BAPs, which has been followed closely in the preparation of the Staffordshire Biodiversity Action Plan. Since this initial report, a further six volumes of 'Tranche 2' have now been published, these now detail over 400 species action plans and 40 habitat action plans.

Local Biodiversity Action Plans in the UK

In the past two years large numbers of local BAPs have been written to implement the recommendations of the UK Steering Group Report. These have mainly been produced at the county or local authority level. These Local Biodiversity Action Plans (LBAPs) identify priority habitats and species, setting targets for their conservation and outlining the mechanisms for achieving these targets.

The emphasis is very much on a planned, partnership approach, but clearly some organisations and individuals will be able to contribute more than others. It is also essential that there is a feeling of ownership amongst local people and organisations or the Plan will fail.

Why do we need a Biodiversity Action Plan for Staffordshire?

There is overwhelming evidence that Staffordshire, in common with the rest of the UK, has suffered huge losses of habitats and species, mainly due to post-war agricultural change. One of the main aims of the Staffordshire Biodiversity Action Plan (SBAP) is to assess how the limited resources available can best be used to protect and enhance what remains as well as recreating lost habitats.

What the SBAP accomplishes

- It assesses the biodiversity resource of Staffordshire, and highlights gaps in our knowledge.
- It identifies which national targets are relevant to Staffordshire and translates them to a local level.
- It identifies local priorities for nature conservation in Staffordshire, allowing resources to be targeted.
- It ensures that priorities in Staffordshire are consistent with those in neighbouring counties.
- It promotes the partnership approach, allowing resources and effort to be combined for maximum effect.

This Plan is intended to provide the basis for a conservation strategy for the county. This is an evolving process and the SBAP will need to be continuously revised and updated in response to new information and new changes within the county. This is the first revision following on from the 1st Edition SBAP produced in 1998.

An Introduction to Staffordshire: Plans, Processes and Policies

Coverage

The Staffordshire Biodiversity Action Plan (SBAP) covers the whole of Staffordshire **outside the Peak Park**. The Peak Park is considered to be a separate ecological unit and is therefore the subject of a separate BAP (published 2001) and references to Staffordshire in this document do not include the area of Staffordshire within the Peak Park. The Staffordshire BAP area is partly overlapped by the **National Forest**. This organisation also has its own BAP (published 1998) which covers the south-eastern part of Staffordshire around Burton-on-Trent and extends into Derbyshire and Leicestershire. There is therefore considerable overlap between the National Forest BAP and the Staffordshire BAP.

Districts

Staffordshire is divided into 9 districts, eight of which are administered by district or borough authorities and one, Stoke-on-Trent, which is a unitary City Council. These districts cross many natural boundaries and are not ecological units. However, as local authorities will implement many of the recommendations in this report, much information is presented on a district-by-district basis.

General Land Use

The BAP area covers approximately 251,000 hectares, which represents 92% of Staffordshire (The remaining 8% of the county is within the Peak Park and not included in this BAP).

The dominant land use is agriculture occupying 81% of the County. While Urban land, mainly the conurbation of Stoke-on-Trent, accounts for 11% of the total area. The remaining 8% comprises heathland, woodland, forest, reservoirs, mineral workings and amenity land such as golf courses.

Permanent pasture is the dominant agricultural land use, accounting for 47% of the total, and dairy farming is the main enterprise on 55% of all full-time farms. Arable crops account for 31% of the total, and this is the dominant land use in South Staffordshire and Lichfield Districts.

Most agricultural land in the BAP area is described by DEFRA as being Grade 3 (average quality), with small amounts of Grade 2 land (very good quality) in the south and west.

Significant amounts of Grade 4 (poor quality) and Grade 5 (very poor quality) land are also present. This is concentrated in the north-east of the SBAP area, in Staffordshire Moorlands District and the northern part of East Staffordshire District. This land has severe limitations, restricting the range of crops that can be grown.

Most of the area between Stoke-on-Trent and the Peak Park is designated as a Less Favoured Area by DEFRA. The South-west Peak Environmentally Sensitive Area (ESA) also extends beyond the Peak Park boundary and covers a small part of the BAP area.

Nature Conservation Sites

There is no completely natural habitat left in Staffordshire as it has all been influenced to some extent by human activity. Most has been heavily modified, for example, agriculturally improved grassland, arable fields and conifer plantations. These habitats support only a limited range of plant and animal species and so have low biodiversity.

The habitats which often support greatest biodiversity are those which have been affected the least by recent human activity such as ancient and semi-natural woodlands and traditionally managed grasslands.

Much of the remaining semi-natural habitat in Staffordshire occurs within designated wildlife sites, which are described below.

Wildlife Sites

Sites of Special Scientific Interest (SSSIs) and Special Areas of Conservation (SACs)

Sites of Special Scientific Interest (SSSIs) are the finest sites for wildlife and natural features, supporting many characteristic, rare and endangered species, habitats and natural features. The purpose of SSSIs is to safeguard for present and future generations a series of sites that are individually of high natural heritage importance. They make a vital contribution to the ecological processes upon which we all depend.

The SSSIs cover approximately 8% of England, and alone they cannot fulfil national biodiversity and geological targets. Many SSSIs are small and isolated, and have to be managed as an integral part of the surrounding landscape. Conservation action is required throughout England if wildlife and natural features are to flourish and enrich our lives. Supportive land use and sustainable development policies, and active conservation management, are vital to the well-being of SSSIs. The majority of SSSIs are privately owned, and those in a favourable condition owe their continued importance to the way in which their owners and occupiers have managed and cared for them.

Selecting and designating SSSIs under Section 28 of the Wildlife and Countryside Act, 1981 (as amended) is a key function of the Council of English Nature, whose members are appointed by the Secretary of State for Environment, Food and Rural Affairs. Sites are selected after detailed scientific survey and evaluation against published guidelines.

Within the area covered by the Staffordshire Biodiversity Action Plan there are 57 SSSIs of which eight are notified purely for their geological features. The biological SSSIs cover some 3900 ha, 1.5% of area.

Special Areas of Conservation (SACs) are sites of European importance designated under the Conservation (Natural Habitats, &c.) Regulations 1994 (Habitats Regulations) that implement Council Directive 92/43/EEC (Habitats Directive). All sites designated under this European legislation are already SSSIs and in the Biodiversity Action Plan area include Cannock Chase, Cannock Extension Canal, Chartley Moss, Motte Meadows, Pasturefields Salt Marsh and the River Mease.

Ramsar Sites are designated under the terms of the Convention on Wetlands of International Importance. Again, all sites are also SSSIs and include Aqualate Mere, Betley Mere, Black Firs & Cranberry Bog, Chartley Moss and Cop Mere. There are three National Nature Reserves within the Plan area, all being managed by English Nature. A further eight SSSIs are partly or wholly managed by the Staffordshire Wildlife Trust as nature reserves.

Sites of Biological Importance (SBIs)

These are sites of local importance and contain most of the best remaining areas of semi-natural habitat in the county.

These are sites selected as the result of a series of County Biological and habitat surveys, carried out mainly between 1979 and 1984 and resurveys between 1995 and 2000. The surveys and resurveys were designed to identify and evaluate the best remaining areas of semi-natural vegetation within Staffordshire, together with as much information as possible about their associated fauna. Selection was carried out on similar criteria to those employed by English Nature for the selection of SSSIs, only applied less rigorously, and on a County rather than a regional or national basis.

This exercise has resulted in the recognition of a series of County SBIs, ranked into two categories of value, namely Grade 1 and Grade 2. Information on all these sites is held by the County Council, Staffordshire Wildlife Trust and the Potteries Museum, Stoke-on-Trent, and these bodies co-operate in servicing, monitoring and updating the record system as far as possible, within the available resources. It must also be noted that Stoke-on-Trent City Council has its own wildlife site system. These are referred to as Natural Heritage Sites and are equivalent to Grade 1 SBIs. This designation has been set up primarily to reflect the City Council's recent unitary status.

Natural Heritage Sites and sites with a higher designation, such as SSSIs, are considered to represent 'good examples' of the various habitat types.

The grading of SBIs may be described as follows:



Grade 1 Sites / Natural Heritage Sites

Generally these sites are the best remaining examples within the County (or City) of habitats which rate highly on the basis of such factors as naturalness, diversity, or rarity of species or communities. These sites are frequently the remnants of larger areas of semi-natural vegetation, which may not be either sufficiently extensive or undisturbed to warrant SSSI status, but they are important examples of characteristic or notable vegetation types or habitat complexes, sometimes with associated dependant plant or animal species. As such, they provide an invaluable complement to the SSSIs and contribute the most significant element in the County's nature conservation resource, much of which is irreplaceable in the event of loss or damage.

Grade 2 Sites

These sites are of lesser significance on a County basis, because of lower intrinsic quality, smaller size or damage or disturbance. Nevertheless they collectively form a significant part of the County's nature conservation resource, and in some cases a valuable 'reserve series' for some of the Grade 1 sites.

The degree of protection merited by each site needs to be assessed on an individual basis and in the light of prevailing circumstances. Both Grade 1 and 2 sites contribute significantly to the maintenance of biodiversity in the wider countryside, now recognised as a major local and national objective.

The BAP area currently contains about 800 Grade 1 SBIs, covering a total of 6945 hectares (2.8% of the total land area). There is currently a policy of combining adjacent SBI sites, so there are now fewer SBIs in those areas that have been re-surveyed.

There are also likely to be a number of other sites that may be of Grade 1 SBI standard, but have not been recognised. They may be Staffordshire Wildlife Trust Nature Reserves, sites which have not yet been surveyed, or sites that have not yet been incorporated into the data system.

Natural Areas and Character Areas

English Nature has divided England into ninety-two Natural Areas based on their wildlife, natural features and land use. These are detailed in a series of Natural Area Profiles, which also highlight conservation priorities. Where possible, the issues raised in these profiles have been incorporated into the habitat action plans in this BAP.

Staffordshire contains nearly all of one complete natural area (Potteries and Churnet Valley) and lesser parts of six others (see map enclosed). This reflects the high diversity of landscapes and wildlife habitats within the county.

Natural Areas in Staffordshire

Natural Area (NA)	% NA in SBAP	% of Staffordshire total
Potteries and Churnet Valley	100	21.7
Needwood and South Derbyshire Claylands	59	20
Midlands Plateau	19	21
Mosses and Meres	17	27.6
Trent Valley and Rises	3	6.7
South West Peak	4	2
White Peak	1	1

The Countryside Commission's Character Areas differ only slightly from the Natural Areas above. In many instances the names and areas covered are the same, but often a number of Character Areas have been combined to form a larger Natural Area.

The relationship between Natural Areas and Character Areas within the Staffordshire Biodiversity Action Plan.

Natural Area (English Nature)	Character Area (Countryside Commission)
Potteries and Churnet Valley	Potteries and Churnet Valley
Needwood and South Derbyshire Claylands	Needwood and South Derbyshire Claylands
Midlands Plateau	Mid Severn Sandstone Plateau Cannock Chase and Cank Wood
Mosses and Meres	Shropshire, Cheshire and Staffordshire Plain <i>Cheshire Sandstone Ridge</i>
Trent Valley and Rises	Trent Valley Washlands Meece / Sence Lowlands <i>Melbourne Parklands</i> <i>Leicestershire and Nottinghamshire Wolds</i>
South West Peak	South West Peak
White Peak	White Peak

NB: Those Character Areas in *italics* do not occur in Staffordshire.

Potteries and Churnet Valley

Located within northern Staffordshire, this is a natural area of strong contrasts: the sprawling conurbation of the Potteries sandwiched between the wild landscape of the uplands around Biddulph to the north, the sheltered, wooded valleys and pastures of the Churnet Valley to the south-east, and the rural landscape of the Staffordshire/Cheshire plain to the south and west. Despite the considerable impact of industry, substantial areas of semi-natural habitat remain; principally in the steep sided valleys of the River Churnet and its tributaries. This natural area holds some of the richest sites for wildlife in Staffordshire.

Needwood and South Derbyshire Claylands

This rolling plateau is located half within Staffordshire and half in Derbyshire. The area within Staffordshire contains the remnants of the Needwood Forest. This was once chase or woodland and is now characterised by a managed, rectilinear landscape of fields, straight roads and woodlands. Parklands and wood-pasture make a locally significant contribution to the landscape and have veteran trees of considerable ecological value to fungi and invertebrates.

Midlands Plateau

The Midlands Plateau is a distinctive incised plateau of predominantly sedimentary rock 100m-300m above sea level marking the division in central England between southern lowland and northern upland, and demonstrating west-east transitions. The plateau is evident in the southern half of the county extending as far north as Stafford. It contains significant tracts of nationally important lowland heathland notably within the county at Cannock Chase, Highgate Common and Kinver Edge.

Mosses and Meres

The Mosses and Meres natural area covers most of Cheshire, the northern half of Shropshire and part of Staffordshire. The area within Staffordshire consists of a gently rolling plain dominated by intensive dairy farming, beef and arable production. At the end of the last ice age, glacial meltwater trapped by the surrounding hills and moraines caused the creation of large lakes (Meres) and peatlands (Mosses), many of which still survive today and include the internationally important Aqualate Mere.

Trent Valley and Rises

Comprising the south-eastern border area of Staffordshire, this natural area produces fertile soil ideal for agriculture. Despite a large area being under intensive agriculture there are a number of important habitats remaining. These include neutral grassland, wet meadows, wet woodland, reservoirs, rivers and streams. There is also great scope to improve the quality of the land for wildlife in a strategic manner, for example restoring gravel pits and other mineral workings along the Trent catchment.

South West Peak and White Peak

Only a small area of both the South West Peak Natural Area and White Peak Natural Area can be found within the Staffordshire BAP boundary. This is located along the political boundary between Staffordshire County Council and the Peak Park Planning Authority, which has prepared its own BAP.

The South West Peak is characterised by acidic soils dominated by moorland vegetation, whereas the White Peak consists of a gently rolling plateau dominated by meadows and pastureland enclosed by dry stone walls.

Landscape Character Types

The most appropriate level at which to describe the overall character of the landscape is generally the Regional Character Area, but this is too broad to be helpful in informing many land-based decisions. A finer grain of classification is needed, and this has led to the recognition of the Landscape Character Type in recent landscape studies. This is a generic term for landscapes that show a particular combination of landscape elements (landform and land-cover) and land uses that create a particular character. An example of these could be riparian alluvial lowland farmlands, representing all examples of farmed landscapes on the alluvial soils associated with floodplains of lowland rivers. Such a Landscape Character Type could be found within many different Regional Character Areas. In Staffordshire these Landscape Character Types have been mapped on the basis of smaller Land Description Units derived from field survey and consultation with environmental specialists. These Land Description Units are the basic units on which assessment, evaluation and decision-making are based.

Staffordshire County Council, in partnership with the Countryside Agency, has built upon this character based approach to landscape assessment, as advocated in current Planning Policy Guidance note 7, to map the quality or effective strength of character of the landscapes of the Structure Plan Area. In addition, a method for assessing and mapping general sensitivity to change of landscape units has been developed. This relationship between sensitivity and quality provides a means of determining the most appropriate measures for the conservation, enhancement or regeneration of landscapes. This has resulted in the identification of five types of landscape policy zones, covering the whole of the plan area, which now replace the previous non-statutory Special Landscape Area designation. The statutory designations of the Cannock Chase Area of Outstanding Natural Beauty and that part of the County falling within the Peak National Park, (which is outside this Plan's area), is unaffected by this process. This approach to landscape policy has now been adopted as Supplementary Planning Guidance to support Policies NC1 and NC2 in the current Staffordshire and Stoke on Trent Structure Plan (1996-2011).

The Supplementary Planning Guidance includes details of the visual and ecological character of the landscapes of the Structure Plan Area and details BAP targets for those areas. Achieving BAP targets for individual Landscape Character Types has therefore become an integral part of the assessment of development proposals within rural Staffordshire.

County Structure Plans and Local Plans

In England, the policy framework for planning control is provided by the development plan system. In Staffordshire this comprises the Staffordshire and Stoke-on-Trent Structure Plan 1996-2011, together with subject local plans for minerals and waste (prepared by the County and Stoke-on-Trent City Councils) and district-wide local plans prepared by the eight district local authorities within the County. The Structure Plan provides a broad planning framework in the form of a comprehensive, sustainable strategy relating to land-use, transportation and the environment. Included in this are a series of policies and proposals for safeguarding and enhancing the County's natural and cultural assets.

Among these policies there are 13 that have a direct or indirect bearing on nature conservation. The policy which is directly concerned with biodiversity is NC 5, which states:

"Planning authorities will seek to further the objectives of the UK and Staffordshire Biodiversity Action Plans through appropriate policies and proposals for safeguarding and increasing key habitats and species. Opportunities will be sought to achieve UK and Staffordshire Biodiversity Action Plan targets for key habitats and species."

A significant parallel policy (NC6) on important semi-natural habitats reads as follows:

"In considering or formulating proposals for development or land use change, planning authorities will ensure, wherever possible, that damage to important semi-natural habitats or other features or sites of significant nature conservation or geological value is avoided. Particular care will be taken to safeguard and consolidate the integrity of linear and other landscape features which are of major importance for wild fauna and flora. Where damage is unavoidable, measures to mitigate or compensate through establishment of replacement habitat or features should be taken, wherever possible."

These two general policies are supplemented by more specific policies relating to individual sites and specific habitats of nature conservation importance, and to the safeguard of legally protected species.

The Structure Plan Policies are in turn developed, as appropriate, in the various district-wide local plans, and in the subject based local plans, for example in relation to mineral working and restoration.

Other Local Biodiversity Action Plans

The Staffordshire Biodiversity Action Plan area overlaps with five other BAPs. These are:

Severn Trent Water BAP, South Staffordshire Water BAP, British Waterways BAP These three company BAPs set out what they intend to achieve, mostly on their landholdings, over the next 10 year timescale. Many of the actions laid out within these Action Plans will help to achieve actions and reach targets within the Staffordshire BAP.

Peak Park BAP

The Peak Park BAP includes all of the White Peak and South West Peak Natural Areas and so there is a slight overlap with the SBAP. Where this overlap occurs, all efforts will be made to coordinate actions in accordance with both LBAPs.

The National Forest BAP

This covers the east of the County within East Staffordshire and Lichfield in the Needwood and Derbyshire Claylands Natural Area. As should be expected, a large number of actions and targets in the National Forest BAP are either the same, or very similar to those in the Staffordshire BAP. This has allowed for a partnership approach to be used towards achieving many of the goals set out in both Action Plans. The National Forest and Staffordshire Wildlife Trust have already collaborated on a number of projects within this area to reach their respective BAP targets. The National Forest also contribute to biodiversity through grant aid, land purchase and land lease.

Implementation

The Partnership Approach

A successful Biodiversity Action Plan involves various partners with a shared agenda working to a shared goal. Biodiversity planning is both a product and a process that involves a wide range of partners who both help develop plans and facilitate delivery of those plans. For the Staffordshire Biodiversity Action Plan to be implemented successfully, wide support is essential.

The more partners who become actively involved, including those from industry, landowners and local authorities, then the more successful the BAP will be. Without the support of some of these key partners some Habitat / Species Action Plans will not be successful.

Implementing specific Habitat and Species Action Plans will be determined by:

- Agreed partnerships / key champions and lead bodies or groups to forward each particular Habitat / Species Action Plan
- The availability of funds and resources
- The ability to capture the interest of landowners, local people, communities, business and other organisations

Priorities for implementing the Actions within each plan will be determined by:

- The greatest need for action
- The willingness of the key implementers
- The likelihood of success given known constraints and opportunities
- The resources available at a given time

Key Organisations

SBAP Steering Group

It is imperative that the project is managed by a core group of partner organisations. These organisations form the Staffordshire Biodiversity Action Plan Steering Group (SBAPSG).

Key group members include representatives from:

British Trust for Conservation Volunteers
Department of Environment, Food and Rural Affairs
English Nature
Environment Agency
Farming and Wildlife Advisory Group
The Forestry Commission
Royal Society for the Protection of Birds
Staffordshire County Council
Staffordshire Wildlife Trust
Stoke City Council

The SBAPSGs **key role** is outlined as:

- Coordination of the work of the project officer
- Yearly review
- Four progress meetings per year

SBAP Project Officer

For the Staffordshire BAP to be successful, a full time project officer needs to be in place to meet the demands of the Plan. The main remit of this position is to help achieve the various targets outlined in the BAP for both Habitat and Species Action Plans.

Specifically, the SBAP Officer's **key role** is to:

- Complete and publish the various editions of the Staffordshire Biodiversity Action Plan.
- Establish and co-ordinate support for a wider biodiversity partnership and integrate it with LA21 activity.
- Promote, involve and consult the wider BAP partnership and the public on the BAP process through publicity, talks and seminars.
- Monitor progress towards SBAP targets by setting up a review system.
- Provide information to the national biodiversity process.
- Generate and manage funded projects that help achieve various targets specified in the SBAP.

Government Organisations

Key government organisations involved with implementing the SBAP include Department of Environment, Food and Rural Affairs (DEFRA), English Nature (EN), Environment Agency (EA), Forestry Commission (FC) and Forest Enterprise (FE). These bodies are involved in various tasks in the biodiversity process including funding, advice, legal enforcement and management. The Government Office for the West Midlands (GOWM) is also involved at a regional policy level.

Key Roles of Government Organisations in the SBAP Process: (SBAP Steering Group Members)

Department of Environment, Food and Rural Affairs (DEFRA)

- To be an active partner in the promotion of biodiversity within Staffordshire
- To assist in the delivery of biodiversity targets within Staffordshire through the government's 'agri-environment' schemes (e.g. Countryside Stewardship).
- To assist with the production of the Staffordshire Biodiversity Action Plan.
- To be an active member of the SBAP Steering Group.

English Nature (EN)

- To be an active member of the SBAP Steering Group
- To assist in the production of the Staffordshire BAP
- To be an active partner in the promotion of biodiversity within Staffordshire
- To assist in the delivery of biodiversity targets within Staffordshire by achieving the positive management and favourable condition of SSSIs, delivering the species and habitat targets in the Government's Biodiversity Action Plan for which English Nature are the lead agency and by the direct support of specific biodiversity projects.

Environment Agency (EA)

- To be an active member of the SBAP Steering Group.
- To assist in the production of the Staffordshire BAP.
- To be an active partner in the promotion of biodiversity within Staffordshire.
- To assist in the delivery of biodiversity targets within Staffordshire through the Agency's regulatory and operational activities and through partnership projects.

Forestry Commission (FC)

The Forestry Commission is the national lead organisation in the delivery of national targets for five UK priority woodland habitats.

- Wet woodland
- Upland woodland
- Upland mixed ashwoods
- Lowland beech and yew woodland
- Native pinewoods

An additional UK priority woodland HAP is in preparation, and will deal with particularly important special types within the broad category "lowland mixed broadleaved woodlands". (A sixth UK priority woodland HAP is also significant in Staffordshire, Lowland wood-pasture and parkland, for which EN is the lead organisation). The national targets for expansion and restoration for all of these priority habitats are regionally targeted and are based on the Natural Areas described previously. By far the most relevant national target in the county is for wet woodlands, and the local importance of this is reflected in this habitat having a separate HAP. The FC's involvement goes beyond the national targets, and will be actively involved in helping to achieve the targets of the Native Woodland HAP.

The FC's role in SBAP will be to work with partners in identifying and delivering both national and local targets through consultation, advice, grant support and the control of felling and other operations in the important semi-natural woodlands. In particular, the FC expects to make a significant contribution to the improvement of the 'woodland' SBIs by funding ecological surveys and management plans, which will be particularly relevant for woods in private ownership. (For a full overview of the work of the FC, visit the Commission's web-site at www.forestry.gov.uk).

Non-Government Organisations and Nature Conservation Bodies

Within Staffordshire, the main NGOs consist of the British Trust for Conservation Volunteers (BTCV), Farming and Wildlife Advisory Group (FWAG), National Trust (NT), Royal Society for the Protection of Birds (RSPB) and Staffordshire Wildlife Trust (SWT). These bodies undertake actions such as site survey, management, monitoring as well having an input into the planning system. Many of these organisations also directly lobby the government to help bring about changes in policy and law.

A shared goal between these organisations is important for the future as resources, time and effort can then be pooled to form a stronger coalition. A lot of project work is also carried out in partnership with other organisations, in particular government organisations and local authorities.

Key Roles of Nature Conservation Organisations in the SBAP Process: (SBAP Steering Group Members)

Farming and Wildlife Advisory Group (FWAG):

- FWAG operates to provide farmers, landowners and other clients with the following:
- Farm conservation advice that embraces wildlife, landscape, archaeology, history, and public issues, through a whole farm approach which raises awareness of the importance of all parts of the holding.
- Advice on environmentally responsible farming and the availability of agri-environment grant schemes that will provide conservation benefits to identified SBAP species and habitats on the farm.

Royal Society for the Protection of Birds (RSPB):

- To be an active partner in the promotion and delivery of biodiversity in Staffordshire
- To assist in delivery of the action plans relating to priority birds and habitats through pro-active measures such as project management and direct advisory work.
- To assist with the production of the SBAP.
- To be an active member of the SBAP steering group.

Staffordshire Wildlife Trust (SWT):

- Provide co-ordination for the SBAP
- Provide secretariat for the SBAP
- Manage land for SBAP objectives
- Main fundraising organisation for the SBAP
- Lead organisation on SBAP

Local Authorities

The support from Staffordshire County Council, Stoke-on-Trent City Council and all the District Councils is a key aspect of the SBAP process. District Councils and the County Council both wield considerable power through the planning process. This operation, through both long-term planning (Structure and Local Plans) and development control of individual planning applications, provides an opportunity for both site safeguard and for mitigation / enhancement where necessary. These authorities also manage large areas of land some of which consist of important wildlife habitat. Appropriate management of these areas can lead to overall wildlife enhancement that can be steered towards achieving relevant SBAP targets.

The LA21 process is also a key area in which the SBAP process can be implemented. The Biodiversity Action Plan can be seen as a measure of the success of many of the LA21 processes and it is very important that both these projects take an integrated approach as each has a shared goal.

Key Roles of Staffordshire County Council in the SBAP Process: (SBAP Steering Group Members)

- To be an active member of the SBAP Steering Group.
- Major contributor towards SBAP heathland targets e.g. on Cannock Chase.
- Joint lead Organisation for Black Poplar.
- Provider of funding for survey and research on target species / groups e.g. solitary bees and wasps; lowland wood pasture.
- Major contributor towards realisation of SBAP targets for heathland species such as hybrid bilberry, bog-bush cricket, small pearl-bordered fritillary, natterjack toad, nightjar and woodlark.
- Habitat management in country parks for target species such as dyer's greenweed, grass snake and lapwing.
- Joint partner / Steering Committee member and funding contributor for Staffordshire Ecological Record and first contact for the supply of ecological data.
- Promoter of biodiversity and sustainability issues through the County Council Website.
- Promoter of biodiversity through Structure Plan and Minerals Local Plan Policies.
- Promoter of target habitat creation (e.g. reedbed, grassland, woodland) as part of mineral restoration.

Staffordshire Ecological Record

Staffordshire Ecological Record (SER), the Local Records Centre for the Staffordshire County is an invaluable tool for the implementation and monitoring of the SBAP.

SER is operated as a partnership between Staffordshire County Council, Staffordshire Wildlife Trust and Stoke-on-Trent City Council and took over the duties of maintaining the Biological & Geological Records Centre from the Potteries Museum in January 2001. The Museum will continue to maintain, conserve and record the voucher collections in its care, many of which are for biodiversity target species. Staffordshire Ecological Record employs one member of staff, based at the Wildlife Trust, to maintain and update the database and geographical information system.

By April 2001 SER built on the existing computerised database and now holds over 220,000 sightings of species throughout Staffordshire including the important datasets for the forthcoming Staffordshire Flora and the recently published Dragonfly and Spider Atlases. A further estimated 200,000 paper records remain to be entered onto computer. A significant amount of which will be addressed by the forthcoming New Opportunities Fund lottery project 'Sense of Place' which will also contribute to the Staffordshire Biodiversity Action Plan.

SER holds details of all the known nature conservation sites and records for SBAP priority species, particularly those supplied on the Recording Cards produced following the first edition of the SBAP. This produced a large number of records, increasing the knowledge of the distribution of these species in Staffordshire.

SER now has the facilities for producing alert maps for a variety of factors, including nature conservation sites and BAP priority species.

Landowners

Probably the single most important group in terms of implementation are the landowners. They have the potential to make a large and lasting impact on biodiversity. A number of primary targets of the Action Plans involve the creation and reinstatement of various habitats and every encouragement needs to be given to landowners who can help to achieve these goals. Without their endorsement, and help, little can be achieved.

Incentives will also play a major role in gaining support from landowners. Schemes such as Countryside Stewardship can provide landowners with the resources and funding to carry out various tasks that can lead to achieving BAP targets.

Industry and Business

The responsibility for wildlife and the environment is not just the concern of conservation bodies. Business and industry must also now take its responsibility seriously and should be encouraged to support the SBAP process. Where applicable, these business partners can champion various habitat and species. This involvement may be through raising funds, offering services and staff, and assisting biodiversity projects on land they own.



Public & Community Involvement

Local communities can benefit the BAP in a number of ways. Community and public support is a crucial component of the BAP. An increased awareness of these groups means a greater support at both the local and national level. Local knowledge and expertise can also be a very important source of information. Other benefits include involvement in practical work and increased communication.

Other possible support includes specialist groups such as the bat groups, fungus group, invertebrate group, conservation volunteers etc. These volunteers and specialist groups can provide the important specialist knowledge needed and help in achieving actions for their specific interest. Making these organisations aware of the SBAP is a primary task.

Action Plans

Introduction

The Action Plans listed have been split into two main groups; Species Action Plans (SAPs) and Habitat Action Plans (HAPs). The new format used in the 2nd Edition has been designed to provide quick and easy to read information for the key implementers of the action plan.

A large amount of information from the 1st Edition SBAP has now been removed and placed in the accompanying Audit (on CD). This includes the introductory paragraph, key species found within habitats and the main threats. If additional information is required on species and habitats then it is strongly suggested that readers search through this accompanying Audit information on the CD.

The new Habitat / Species Action Plan format is as follows:

Objectives

What the plan sets to achieve

Targets

Sets 'smart' targets within specific time scales to measure the success of each Habitat / Species Action Plan

Achievements to Date (November 1998 – March 2001)

Details any achievements that have been made towards reaching the targets and objectives above in the given timescale.

NB: It must also be noted that, due to the completion and production of the Audit in 2000, a large number of actions concerning data collection were completed. These have not been listed under each Action Plan and any specific actions relating to these have now been removed.

Current Action

List any actions currently underway that directly or indirectly benefit the habitat.

Protection & Policy

Includes formal designations, legislation and plan policies.

Management, Research and Survey

Includes beneficial management, current surveys and monitoring programmes.

Action Plan

Sets out the action required if the objectives and targets are to be met. The main implementing bodies are outlined after each specific action.

It must be noted that a number of key organisations are involved throughout the whole Biodiversity process. To avoid repetition throughout the Action Plan and to ensure clarity, these have been omitted from the text unless they are the sole implementing body.

These key organisations are all part of the SBAP Partnership and include:

British Trust for Conservation Volunteers
English Nature
Environment Agency
Department of Environment Food and Rural Affairs
Farming and Wildlife Advisory Group
The Forestry Commission
Royal Society for the Protection of Birds
Staffordshire County Council
Staffordshire Wildlife Trust
Stoke City Council*

*only a Key Organisation within its unitary authority boundary

Some, if not all, of these organisations could be listed after nearly every single action as each one performs a number of duties including site management, providing advice, funding and providing comment on various initiatives which could have an affect on biodiversity in the County.

Where the 'SBAP Partnership' is listed as a key implementer, then it is assumed that the exact responsibility would depend on the circumstances.

Complementary Plans

Details both UK Action Plans and Staffordshire Action Plans that relate to the specific species / habitat.

The Staffordshire Habitat Action Plans are linked to those in the UK BAP. In many instances they are the same, there are some differences however. For example Staffordshire's 'unimproved neutral grassland HAP' is linked to the 'UK Lowland Meadows HAP' and 'UK Upland Hay Meadows HAP' but also includes other important grassland types present in Staffordshire not covered by the UK BAP.

Two other habitats within the SBAP have not been covered at a UK level, these are 'inland saltmarsh' and 'rivers and streams'.

The table below summarises the links between SBAP HAPs and UK HAPs.

Staffordshire HAP	United Kingdom HAP
Native Woodland	UK 'Lowland Broadleaved Woodland HAP' (in prep)
Wet Woodland	UK Wet Woodland HAP
Lowland Wood-pasture and Parkland	UK Lowland Wood-pasture and Parkland HAP
Arable Field Margins	UK Arable Field Margins HAP
Ancient / Diverse Hedgerows	UK Hedgerows HAP
Lowland Acid grassland	UK Lowland Dry Acid Grassland HAP
Lowland Calcareous Grassland	UK Upland Calcareous Grassland HAP UK Lowland Calcareous Grassland HAP
Lowland Wet Grassland	UK Coastal and Floodplain Grazing Marsh HAP
Unimproved Neutral grassland	UK Lowland Meadows HAP UK Upland Hay Meadows HAP
Lowland Heathland	UK Lowland Heathland HAP
Ponds, Lakes and Canals	UK Eutrophic Standing Water HAP
Inland Saltmarsh	
Mosses	UK Raised Bog HAP
Reedbeds	UK Reedbed HAP
Rivers and Streams	

Implementing Organisations

BASC	British Association for Shooting & Conservation
BC	Butterfly Conservation
BCT	Bat Conservation Trust
BDS	British Dragonfly Society
BHS	British Herpetological Society
BRC	Biological Records Centre (Monks Wood)
BSBI	Botanical Society of the British Isles
BTCV	British Trust for Conservation Volunteers
BTO	British Trust for Ornithology
BW	British Waterways
BWB	British Waterways Board
CLA	Country Land and Business Association
CRP	Central Rivers Project
DEFRA	Department of Environment, Food and Rural Affairs
EA	Environment Agency
EH	English Heritage
EN	English Nature
F	Froglife
FC	Forestry Commission
FE	Forest Enterprise
FoM	Forest of Mercia
FWAG	Farming and Wildlife Advisory Group
GCT	Game Conservancy Trust
HA	Highways Agency
HCT	Herpetological Conservation Trust
IDB	Internal Drainage Board
LAs	Local Authorities
NFU	National Farmers Union
NGOs	Non Government Organisations
NT	National Trust
RC	Rodbaston College
RSPB	Royal Society for the Protection of Birds
SBAPSG	Staffordshire Biodiversity Action Plan Steering Group
SBG	Staffordshire Bat Group
SCC	Staffordshire County Council
SEB	Staffordshire South East Bat Group
SER	Staffordshire Ecological Record
SFG	Staffordshire Fungus Group
SMG	Staffordshire Mammal Group
SWT	Staffordshire Wildlife Trust
SWMHP	Staffordshire and West Midlands Heathland Partnership
TNF	The National Forest
WMBC	West Midland Bird Club

Glossary

BAP	Biodiversity Action Plan
BBS	Breeding Bird Survey
CRoW	Countryside Rights of Way Act
CSS	Countryside Stewardship Scheme
ESA	Environmentally Sensitive Area
GOWM	Government Office for the West Midlands
HAP	Habitat Action Plan
JNCC	Joint Nature Conservation Committee
IEC	Index of Ecological Continuity
LBAP	Local Biodiversity Action Plan
LEAP	Local Environment Agency Plan
NFTS	National Forest Tender Schemes
NGO	Non Government Organisation
SAC	Special Areas of Conservation
SAP	Species Action Plan
SBAP	Staffordshire Biodiversity Action Plan
SBAPSG	Staffordshire Biodiversity Action Plan Steering Group
SBI	Site of Biological Importance
SQI	Saproxyllic Quality Index
SSSI	Site of Special Scientific Interest
SuDS	Sustainable urban Drainage Systems
SWQOs	Statutory Water Quality Objectives
TPO	Tree Preservation Order
WIGS	Woodland Improvement Grant Scheme

HABITAT ACTION PLANS

WOODLAND

Lowland Wood-pasture and Parkland
Native Woodland
Wet Woodland

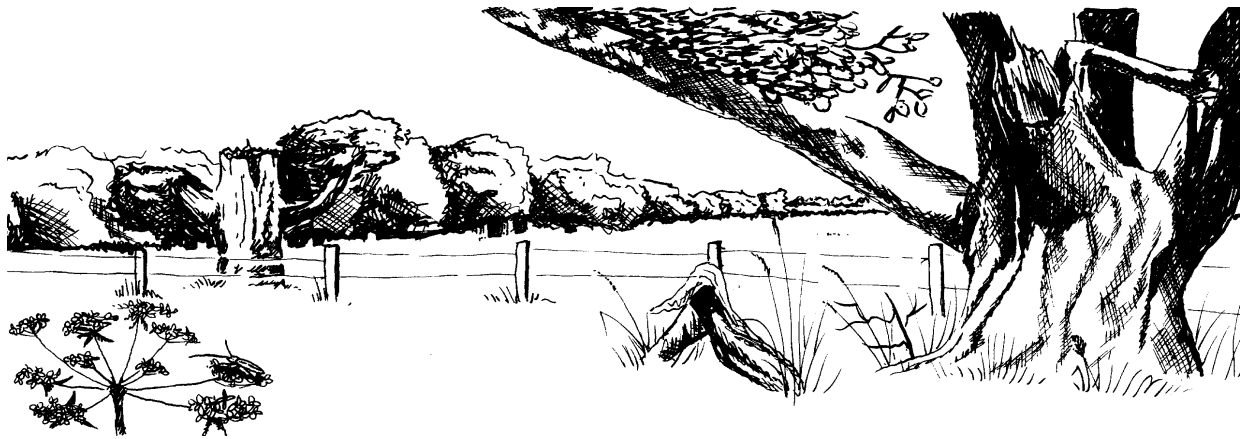
FARMLAND, GRASSLAND AND HEATHLAND

Ancient / Diverse Hedgerows
Arable Field Margins
Lowland Acid grassland
Lowland Calcareous Grassland
Lowland Heathland
Lowland Wet Grassland
Unimproved Neutral grassland

WETLAND

Inland Saltmarsh
Mosses
Ponds, Lakes and Canals
Reedbeds
Rivers and Streams

Lowland Wood-pasture and Parkland



Objectives

- Maintain the existing important areas of lowland wood-pasture and parkland.
- Restore degraded areas of lowland wood-pasture and parkland by promoting appropriate management.
- Increase the amount of lowland wood-pasture and parkland in appropriate areas by expansion.

Targets

- Ensure long-term sustainable management for 1000ha of parkland and wood-pasture by 2010.
- Restore 150 hectares of former wood-pasture and parkland back from plantation and/or arable by 2005.
- Expand existing sites by 100ha of new wood-pasture and parkland by 2010.

Achievements to Date (November 1998 - March 2001)

- 15.1ha of new wood-pasture/parkland created.
- 9.96ha of wood-pasture/parkland in management.
- Invertebrate survey work on four key sites complete using Saproxyllic Quality Index (SQI) and Index of Ecological Continuity. (IEC)
- Staffordshire has been surveyed for its parkland and an inventory has been produced; over 1,200ha of Grade1 SBI / SSSI intact parkland is known to occur in the County.

Current Action

Protection & Policy

- Lowland wood-pasture and parkland has been listed as a costed Key Habitat in the UK Steering Group report.
- A number of wood-pasture and parkland sites have been notified as SSSIs.
- A number of wood-pasture and parkland sites have been classified as Grade 1 SBIs.
- Species such as bats and some birds, which may utilise old trees, receive protection under the Wildlife & Countryside Act 1981 and the EC Habitats and Species Directive.
- Felling licences are required for removal of over five cubic metres in any calendar quarter but do not protect against safety felling.

Management, Research & Survey

- The Forestry Authority's new scheme under the Woodlands Improvement Grant - Eligible habitats include wood pasture and parkland.
- A number of wood-pasture and parkland sites are managed for their nature conservation interest (Staffordshire County Council and Staffordshire Wildlife Trust).
- The Countryside Stewardship Scheme provides grant aid for the management of parkland.

Action Plan

UK Lead Organisation: English Nature

Policy

- Ensure any examples of parkland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate parkland sites meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to restore and expand further areas of lowland wood-pasture and parkland in appropriate areas. (**FoM, TNF, SWT, LAs, Landowners and Developers**)
- Seek to implement long-term site management plans for appropriate key sites using schemes such as Countryside Stewardship and the National Forest Tender Scheme. (**DEFRA, FWAG, TNF**)
- Where veteran trees still remain, encourage the restoration of former parkland using incentives such as Countryside Stewardship. (**DEFRA, FWAG, TNF, FoM**)
- Where feasible, restore appropriate Forest Enterprise plantations back to wood-pasture. (**FE**)

Monitoring and Research

- Carry out further survey work on key sites to identify interest and seek site designation. (**SWT, SCC, EN**)
- Seek to resurvey all wood-pasture and parkland sites by 2010. (**SBAP Partnership**)
- Monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Advise landowners on aspects of parkland and veteran tree management. (**SWT**)
- Promote the biodiversity and landscape value of lowland wood-pasture and parkland to the public and landowners. (**SBAP Partnership, English Heritage**)

Complementary Plans

UK Lowland Wood-pasture and Parkland HAP
Staffordshire Lowland Broadleaved Woodland HAP
Staffordshire Grassland and Heathland HAPs
Staffordshire Noctule Bat SAP
Staffordshire Brown Hare SAP

Native Woodland



Objectives

- Maintain existing areas of important native woodland.
- Contribute to all the UK Woodland Habitat Action Plans that are relevant to Staffordshire.
- Restore degraded areas of important native woodland by promoting appropriate management.
- Re-create, or promote the natural regeneration of native woodland in areas traditionally occupied by this habitat, and not currently supporting vegetation of greater importance, in order to expand and link the existing resource.

Targets

- Maintain and enhance all good examples of woodland through appropriate management by 2010.
- Restore and / or improve 300ha (10% of County resource) of all replanted ancient woodland by appropriate natural regeneration / planting regimes by 2010.
- Increase the area of native woodland by 300ha in appropriate areas by 2010.
- Contribution to UK Upland Oak HAP; expansion of 20ha in Midlands Plateau; restoration of 20ha in Midlands Plateau by 2010.

Achievements to Date (November 1998 – March 2001)

- 22.81ha of Ancient woodland placed into management, (various sources).
- 62.24ha of woodland planted through NF Tender Schemes.

Current Action

Protection & Policy

- A 'lowland broadleaved woodland' costed UK Habitat Action Plan is currently being prepared.
- Some sites have statutory protection through SSSI designation.
- Most known remaining good examples of woodland have been designated Grade 1 SBIs.
- The Forestry Commission exercises control in respect of tree felling under the 1967 Forest Act.
- There is a national policy in place to protect ancient semi-natural woodland.
- Some woodland is protected by tree preservation orders administered by Local Authorities.

Management, Research and Survey

- A number of conservation bodies actively manage woods for their nature conservation value.
- DEFRA and the Forest Authority provides guidance on woodland management.
- The Forestry Commission runs a number of Grants Schemes, including the Woodland Improvement Grant under the Woodland Grant Scheme and the Native Woodland Plan Pilot Project.
- EN provides specific guidance to local authorities and has produced a report entitled 'Local Authorities and the protection and management of ancient woodland' (ENRR 250).
- An England Forestry Strategy has been produced by the Forestry Commission.
- The National Forest Company and Forest of Mercia actively promote woodland planting and conservation within their areas.
- An Ancient Woodland Inventory for Staffordshire (including the Peak Park) has been produced by English Nature.

Action Plan

UK Lead Organisation: [Forestry Commission - Upland Oak]

The FC is lead organisation for those woodland types which have UK priority targets. At present this is restricted to 'Upland Oak Woodland' in the Midlands Plateau Natural Area, but may be extended following the publication of a new woodland priority UK HAP for some types of lowland deciduous woodland.

Policy

- Ensure any examples of native woodland of high enough quality are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate lowland broadleaved woodland sites meeting the SSSI criteria are designated. (**EN**)
- Identify prime areas for the restoration and planting of native woodlands within the County through a partnership approach. (**FC, SCC, EN, SWT**)

Land Management

- Seek to restore and create further areas of native woodland in appropriate areas. Creation of such woodland would take place on land of low conservation value. (**FC, FE, LAs, FoM, TNF, Developers and Landowners**)
- Seek to restore and create further areas of woodland featured as UK HAPs (Upland Oak and Upland Mixed Ash) in appropriate areas in line with current guidelines. (**FC, EN**)
- Prior to approval of a WGS or Felling Licence, ensure that a suitable management plan for appropriate native woodlands is in place that seeks to maintain the nature conservation interest. (**FC**)
- Seek to promote the uptake of the Native Woodland Management Plan Pilot Scheme to woods with known nature conservation interest, targeting landowners of SBIs. (**SCC, FC, SWT**)

Monitoring and Research

- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT, FC**)
- Identify the amount of Upland Oak and Upland Mixed Ash Woodland in the County. (**SWT, FC**)

Advisory

- Promote the biodiversity and landscape value of lowland broadleaved woodland to the public and landowners. (**SBAP Partnership, TNF, FoM, FC**)
- Seek to ensure that all landowners are aware of any management grants that may be available for woodland. (**FC, FoM, TNF**)

Complementary Plans

UK 'Lowland Broadleaved Woodland HAP' (in prep)
Staffordshire Wet Woodland HAP
Staffordshire Noctule SAP
Staffordshire Pipistrelle SAP

Wet Woodland



Objectives

- Maintain the existing areas wet woodland where other key habitats would not be compromised.
- Restore degraded areas of wet woodland by promoting appropriate management.
- Re-create, or promote the natural regeneration of wet woodland in areas traditionally occupied by this habitat, and not currently supporting vegetation of greater importance, in order to expand and link the existing resource.

Targets

- Ensure that there is no further loss of important wet woodland.
- In line with current UK Guidelines, expand wet woodland within Staffordshire by 65ha; 17ha in Mosses and Meres; 27ha in Potteries & Churnet Valley; 16ha in Needwood; and 5ha in Midlands Plateau Natural Areas respectively.
- In line with current UK Guidelines, restore wet woodland within Staffordshire by 32ha; 8ha in Mosses and Meres; 13ha in Potteries & Churnet Valley; 8ha in Needwood; and 3ha in Midlands Plateau Natural Areas respectively.
- Seek appropriate management for 400ha of wet woodland by 2010.

Achievements to Date (November 1998 - March 2001)

- 10.5ha of wet woodland has been created via various sources.

Current Action

Protection & Policy

- Wet woodland has been listed as a costed Key Habitat in the UK Steering Group report.
- A number of appropriate wet woodland sites have been notified as SSSIs.
- Most known remaining good examples of wet woodland sites have been classified as Grade 1 SBIs.
- Residual alluvial alder woodland is listed as a priority habitat in the EC Habitats Directive.
- Broadleaved semi-natural woodland is protected under the felling licence system.
- Wet woodland restoration / creation is targeted in various LEAPs that operate within the County.

Management, Research and Survey

- A number of wet woodlands are managed for their nature conservation interest (English Nature, Staffordshire County Council and Staffordshire Wildlife Trust).
- The National Forest Company has a policy of linking existing areas of woodland, including wet woodland.
- The Countryside Stewardship Scheme provides grant aid for the establishment of willow and alder carr.
- An initial audit of wet woodland has been completed. This identified c.500 hectares of wet woodland present within Sites of Biological Importance.
- A 'Restoring Power to the Wetlands' project (managed by Staffordshire Wildlife Trust and funded by Powergen) operates in the East of Staffordshire.

Action Plan

UK Lead Organisation: Forestry Commission

Policy

- Ensure any examples of native woodland of high enough quality are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate wet woodland sites meeting the SSSI criteria are designated. (**EN**)
- Identify prime areas for the restoration and planting of native woodlands within the County through a partnership approach. (**FC, SCC, EN, SWT**)

Land Management

- Seek to restore and create further areas of wet woodland in appropriate areas in line with current guidelines. Creation of such woodland would take place on land of low conservation value. (**FC, FE, LAs, EN, EA, FoM, TNF, Developers and Landowners**)
- Seek to ensure that no inappropriate management e.g. drainage or heavy grazing, occurs in wet woodland. (**EA, FC**)
- Seek to raise the water table in wet woods that have suffered from drying due to drainage and ground water abstraction. (**EA**)
- Seek to promote the natural regeneration on land of little conservation value by fencing areas to stop grazing pressures. (**SBAP Partnership**)
- Prior to approval of a WGS or Felling Licence, ensure that a suitable management plan for appropriate wet woodlands is in place that seeks to maintain the nature conservation interest. (**FC**)
- Seek to promote the uptake of the Native Woodland Management Plan Pilot Scheme to woods with known nature conservation interest, targeting landowners of SBIs. (**SCC, FC, SWT**)

Monitoring and Research

- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT, FC**)
- Seek to ensure that any future Phase 1 surveys distinguish between wet and dry woodland. (**SBI Grading Committee**)
- Carry out research into the local impact of *Phytophthora* root disease in alder. (**Forest Research**)

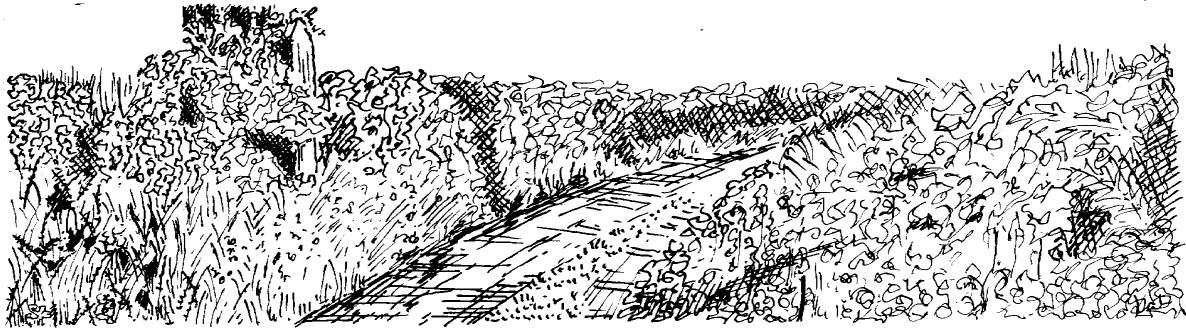
Advisory

- Promote the biodiversity and landscape value of wet woodlands to the public and landowners. (**SBAP Partnership**)
- Ensure that all landowners are aware of any management grants that may be available for wet woodland. (**FC, FoM, TNF**)

Complementary Plans

Staffordshire Semi-natural Broadleaved Woodland HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Reedbed HAP
Staffordshire Grass Snake SAP

Ancient / Diverse Hedgerows



Objectives

- Halt the net loss of ancient and diverse hedgerows and achieve a favourable level of management for such hedges.
- Increase the net length of native, species rich hedgerows within the County.

Targets

- Prevent any further net loss of ancient/diverse hedgerows within Staffordshire.
- Increase the net amount of diverse hedgerow by 200km through new planting by 2010.
- Maintain overall numbers of hedgerow trees and ensure that there are no net losses from 2001 onwards.
- Achieve favourable management for 200km of all ancient/diverse hedgerows by 2010.

Achievements to Date (November 1998 - March 2001)

- 12km of hedgerow planted by National Forest Tender Schemes, DEFRA, SWT, BTCV and National Trust in Staffordshire.
- 2.5km of hedgerow retained through Hedgerow Regulation applications.

Current Action

Protection & Policy

- Implementation of the Hedgerow Regulations 1997 that leads to some hedgerows being protected by law.
- Some hedgerow systems are classified as wildlife sites (SBIs) and are recognised by local authorities to be of some importance for development control purposes.

Management, Research & Survey

- A number of agri-environment schemes offer grant aid for maintenance and creation of hedgerows.
- Hedgerow management and hedge laying is carried out by a number of organisations throughout the County.
- Ancient and/or Species rich Hedgerows has been listed as a costed, key habitat in the UK Steering Group Report.

Action Plan

UK Lead Organisation: DEFRA

Policy

- Ensure development plans provide for the protection and management of species rich hedges. (**LAs**)
- Ensure all hedges under threat of destruction are surveyed for their importance. (**LAs**)
- Seek to ensure that all future hedgerow planting is either species rich or is in accordance with the area in which it is to be created. (**DEFRA, FWAG**)

Land Management

- Encourage favourable hedgerow management e.g. codes of practice on cutting time, leaving a strip of un-sprayed land along hedgerow edge etc. (**DEFRA, FWAG**)
- For hedgerows along roads, canals and railways, seek to ensure that the controlling agency practises appropriate management. (**Highways Agency, BWB, Railtrack**)
- Promote the restoration of defunct old hedgerows wherever possible. (**DEFRA, FWAG**)
- Encourage planting of new diverse hedgerows using locally native species. (**DEFRA, FWAG**)
- Encourage planting and/or regeneration of more hedgerow trees. (**DEFRA, FWAG**)
- Seek to restore and create native, species rich hedgerows in appropriate areas. (**DEFRA, FWAG, FoM, TNF, Developers and Landowners**)

Monitoring and Research

- Carry out research into the extent and quality of Staffordshire hedgerows. (**SWT, Universities**)
- Review annual figures for hedgerow removal notices to monitor success / failure of the Hedgerow Regulations 1997. (**SWT**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Promote the biodiversity and landscape value of ancient diverse hedgerows to the public and landowners. (**SBAP Partnership**)

Complementary Plans

UK Hedgerows HAP
Staffordshire Arable Field Margins HAP
Staffordshire Pipistrelle Bat SAP
Staffordshire Noctule Bat SAP
Staffordshire Grey Partridge SAP

Arable Field Margins



Objectives

- To maintain the biodiversity of appropriate cereal field margins within the county.

Targets

- To create and maintain 600km of 2-metre field margin strips and beetle banks within arable fields by 2010.
- To create and maintain 500km of 6-metre field margin / wildlife buffer strips within arable fields by 2010.

Achievements to Date (November 1998 - March 2001)

- 327.5km of 2-metre strips and beetle banks have currently been created and are maintained.
- 196.9km of 6-metre field margin / wildlife buffer strips have currently been created and are maintained.

Current Action

Protection & Policy

- Some compounds have statutory label exemptions preventing their use on the outermost six metre strips of crops to prevent over-spraying of watercourses and protect non-cropped habitats.
- Under the Food & Environment Act 1985 it is currently illegal to spray directly into hedge bottoms unless they have off-label exemptions.

Management, Research & Survey

- Funding for arable field margin enhancements is available under the Countryside Stewardship scheme.
- RSPB have set up a bird aid project, looking at food sources within arable field margins for farmland birds.
- Arable Field Margins has been listed as a costed, key habitat in the UK Steering Group Report.

Action Plan

UK Lead Organisation: DEFRA

Policy

- Lobby for positive conservation incentives and further grant aid for the creation and sympathetic management of field margins. (**SWT, RSPB and other NGOs**)
- Seek to encourage the placement of 2-6 metre field margins along streams and brooks adjacent to or within arable fields. (**DEFRA, FWAG**)

Land management

- Seek to restore and create further areas of arable field margins in appropriate areas. (**DEFRA, FWAG, FoM, TNF**)
- Seek to focus restoration in areas of high biodiversity (e.g. barn owl sites) to increase the network of field margins. (**DEFRA, FWAG**)

Monitoring and Research

- Determine key areas (e.g. barn owl sites) for improvement of field margins. (**SWT, RSPB, WMBC**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Seek to ensure that all landowners are aware of any management grants that may be available for arable field margins e.g. Countryside Stewardship. (**DEFRA, FWAG**)
- Promote the biodiversity and landscape value of arable field margins to the public and landowners. (**SBAP Partnership**)

Complementary Plans

Staffordshire Hedgerow HAP
Staffordshire Barn Owl SAP
Staffordshire Seed-eating Birds SAP
Staffordshire Grey Partridge SAP
Staffordshire Skylark SAP
UK Arable Field Margins HAP

Lowland Acidic Grassland



Objectives

- Maintain the existing important areas of acidic grassland, encouraging appropriate management and promoting environmentally sensitive management of adjoining land.
- Restore degraded areas of acidic grassland by promoting appropriate management.
- Increase the amount of acidic grassland in appropriate areas by creation and re-creation.

Targets

- Prevent any further net losses of good examples of unimproved acidic grassland by 2005.
- Increase the amount of semi-natural acidic grassland by 20 hectares by 2010.
- Seek appropriate management for 120ha (30%) of unimproved acidic grassland by 2005 and 400ha (100%) by 2015.

NB: For heathland / acid grassland mosaics see Lowland Heathland Action Plan.

Achievements to Date (November 1998 - March 2001)

- See also Lowland Heathland HAP.

Current Action

Protection & Policy

- Lowland dry acidic grassland has been listed as a costed, key habitat in the UK Steering Group Report.
- A number of sites containing unimproved lowland acidic grassland have been notified as SSSIs.
- A number of sites containing unimproved lowland acidic grassland have been classified as Grade 1 SBIs.

Management, Research & Survey

- Funding is for grassland management; restoration and creation are available under the Countryside Stewardship scheme.
- Ongoing research plots carried out by Staffordshire County Council to test methods of bracken eradication.

Action Plan

UK Lead Organisation: English Nature

Policy

- Ensure any examples of lowland acid grassland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate lowland acid grassland sites meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to restore and create further areas of lowland acid grassland in appropriate areas. (**DEFRA, FWAG, Mineral Companies, SWMHP, Developers, FoM, TNF, Landowners**)
- Ensure that no tree planting occurs in unimproved acidic grassland. (**FC**)
- Seek to ensure that all good examples of lowland acidic grassland are appropriately managed through the uptake of agri-environment schemes. (**DEFRA, FWAG**)
- Attempt to control the spread of bracken on acidic grassland sites. (**Landowners**)
- Identify opportunities for habitat creation, giving priority to those that link existing sites. (**SWT**)
- Create acidic grassland buffer zones, where necessary, around heathland sites. (**SWMHP**)
- Identify prime areas of acidic grassland within heathland sites so that these areas can be retained and enhanced. (**SWMHP**)

Monitoring and Research

- Re-survey all good examples of unimproved acidic grassland in 2005 and 2010 to assess their condition. (**SBAP Partnership**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Seek to ensure that all landowners are aware of any management grants which may be available for acidic grassland e.g. Countryside Stewardship. (**DEFRA, FWAG, EN**)
- Promote the biodiversity and landscape value of unimproved acidic grassland to the public and landowners. (**SBAP Partnership**)

Complementary Plans

UK Lowland Dry Acid Grassland HAP
Staffordshire Unimproved Neutral Grassland HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Heathland HAP
Staffordshire Brown Hare SAP
Staffordshire Grass Snake SAP
Staffordshire Solitary Bees & Wasps SAP
Staffordshire Dyer's Greenweed SAP
Staffordshire Skylark SAP
Staffordshire Lapwing SAP

Lowland Calcareous Grassland



Objectives

- Maintain the existing important areas of lowland calcareous grassland, encouraging appropriate management and promoting environmentally sensitive management of adjoining land.
- Restore degraded areas of lowland calcareous grassland by promoting appropriate management.
- Increase the amount of lowland calcareous grassland in appropriate areas by creation and re-creation.

Targets

- Prevent any further loss of unimproved calcareous grassland in Staffordshire from 2001 onwards.
- Place 100ha of calcareous grassland in target areas into appropriate management by 2010.
- Create 20ha of calcareous grassland by 2010.

Achievements to Date (November 1998 - March 2001)

- 5ha of calcareous grassland improved in diversity through DEFRA and the Countryside Stewardship Scheme.

Current Action

Protection & Policy

- Lowland calcareous grassland has been listed as a costed Key Habitat in the UK Steering Group report.
- A number of sites containing unimproved lowland acidic grassland have been notified as SSSIs.
- A number of sites containing unimproved lowland acidic grassland have been classified as Grade 1 SBIs.
- The Weaver Hills, which contain most calcareous grassland in the BAP area, has been designated a Less Favoured Area by DEFRA.

Management, Research & Survey

- The Countryside Stewardship Scheme provides grant aid for the management of unimproved calcareous grassland.
- A grassland restoration strategy (unpublished) has been produced by SWT to determine areas of potential restoration for the County.

Action Plan

UK Lead Organisation: English Nature

Policy

- Ensure any examples of lowland calcareous grassland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate lowland calcareous grassland sites meeting the SSSI criteria are designated. (**EN**)
- Where existing quarry planning permissions threaten SSSI grasslands, seek to revoke them. (**SWT**)

Land Management

- Seek to restore and create further areas of lowland calcareous grassland in appropriate areas. (**DEFRA, FWAG, Mineral Companies and Developers**)
- Encourage the restoration of limestone workings to species-rich grassland using a local seed source. (**SBAP Partnership**)
- Seek to ensure that all good examples of lowland calcareous grassland are appropriately managed through the uptake of agri-environment schemes (**DEFRA, FWAG**)
- Identify opportunities for habitat creation, giving priority to those that link existing sites. (**SWT**)

Monitoring and Researching

- Identify a suitable local seed source for use in calcareous grassland restoration schemes. (**SWT**)
- Re-survey all good examples of lowland calcareous grassland in 2005 and 2010 to assess their condition. (**SBAP Partnership**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County (**SWT**)

Advisory

- Seek to ensure that all landowners are aware of any management grants which may be available for calcareous grassland e.g. Countryside Stewardship. (**DEFRA, FWAG**)
- Promote the biodiversity and landscape value of calcareous grassland to the public and landowners. (**SBAP Partnership**)

Complementary Plans

Staffordshire Unimproved Neutral Grassland HAP
Staffordshire Brown Hare SAP
Staffordshire Skylark SAP
Staffordshire Lapwing SAP

Lowland Heathland



Objectives

- Maintain the existing important areas of lowland heathland by encouraging appropriate management.
- Restore degraded areas of lowland heathland by promoting appropriate management.
- Increase the amount of lowland heathland in appropriate areas by creation and re-creation.

Targets

- Protect all known important (Grade 1 SBI or better) heathland sites from further development by 2005.
- Restore through appropriate management 800ha of heathland by 2010.
- Create and recreate 100 hectares of heathland by 2010; targeting forestry, minerals and landfill sites in appropriate areas.
- Prevent any further losses of important (Grade 1 SBI or better) areas of heathland by 2005.
- Ensure that all important heathland sites are in favourable or recovering condition by 2005.

Achievements to Date (November 1998 - March 2001)

- 64ha placed into restoration and enhancement management via the Countryside Stewardship Scheme (DEFRA), local authorities, SWT, other organisations and private landowners.
- 2.3ha of heathland has been re-created (various sources).
- Staffordshire and West Midlands Heathland Partnership reported that for the County of Staffordshire: 80ha of bracken spraying has been completed, 28ha of scrub clearance, 8ha of woodland thinning, 14ha of plantation removal and 30.2ha of turf scrapes created.

Current Action

Protection & Policy

- 63% of all Staffordshire heathlands by area are currently notified as SSSIs.
- A number of sites containing unimproved lowland acidic grassland have been classified as Grade 1 SBIs.
- A programme of publicity and public events are run every year. This includes the annual 'Heath Week'.
- Protective and enhancement policies for heathland have been included within statutory local plans etc.
- Lowland Heathland has been listed as a costed, key habitat in the UK Steering Group Report.
- The Staffordshire & West Midland Heathland Partnership (SWMHP) is Lead Organisation for Lowland Heathland in Staffordshire.

Management, Research & Survey

- £¾ million has been raised through the HLF, Staffordshire County Council and English Nature for the 'Saving Cannock Chase' project. A large proportion of these funds will be towards heathland restoration, with an element of re-creation also included (5 year project).
- A number of heathland sites have been surveyed for their invertebrate, bird and herpetile interest.
- Over the last decade the Staffordshire and West Midlands Heathland Partnership have helped to get a significant proportion of heathland into appropriate management.

Action Plan

UK Lead Organisation: English Nature

Regional Lead Organisation: Staffordshire and West Midlands Heathland Partnership

Policy

- Ensure any examples of lowland heathland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate lowland heathland sites meeting the SSSI criteria are designated. (**EN**)
- Seek changes in Common Land Legislation to enable grazing re-introduction. (**SWMHP**)

Land Management

- Seek to restore and create further areas of lowland heathland in appropriate areas. (**Developers, FoM, DEFRA, Landowners**)
- Target heathland creation in restoration plans for mineral workings, landfill sites and within commercial forestry in appropriate places. (**Mineral Companies, Landfill Companies, FE**)
- Liaise with leisure interest groups to incorporate heathland conservation into their site management or to re-direct their activities to more robust locations. (**SWMHP**)
- Ensure all heathland management plans include a consideration of sustainability issues and fire protection. (**SWMHP**)
- Seek to re-introduce grazing on all local authority owned heathland using appropriate breeds by 2005. (**SWMHP**)
- Seek to ensure all heathlands with management plans that are eligible for Countryside Stewardship Schemes are entered into the scheme. (**SWMHP, DEFRA**)
- Encourage restoration of heathland on publicly owned land with surviving heathy fragments such as for example re-establishment of heathland from encroaching scrub. (**SWMHP**)
- Liaise with forestry landholders to restore heathland from coniferous woodland. (**SWMHP**)
- Encourage heathland conservation and management on land in private ownership through active liaison and the promotion of appropriate land management grant schemes e.g. Countryside Stewardship. (**SWMHP**)

Monitoring and Research

- Re-assess the current condition of all lowland heath in Staffordshire within the next five years. (**SWMHP**)
- Develop a programme of regular site survey and monitoring of management for all managed heaths to ensure best practice and species safeguard. (**SWMHP**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT, EN**)

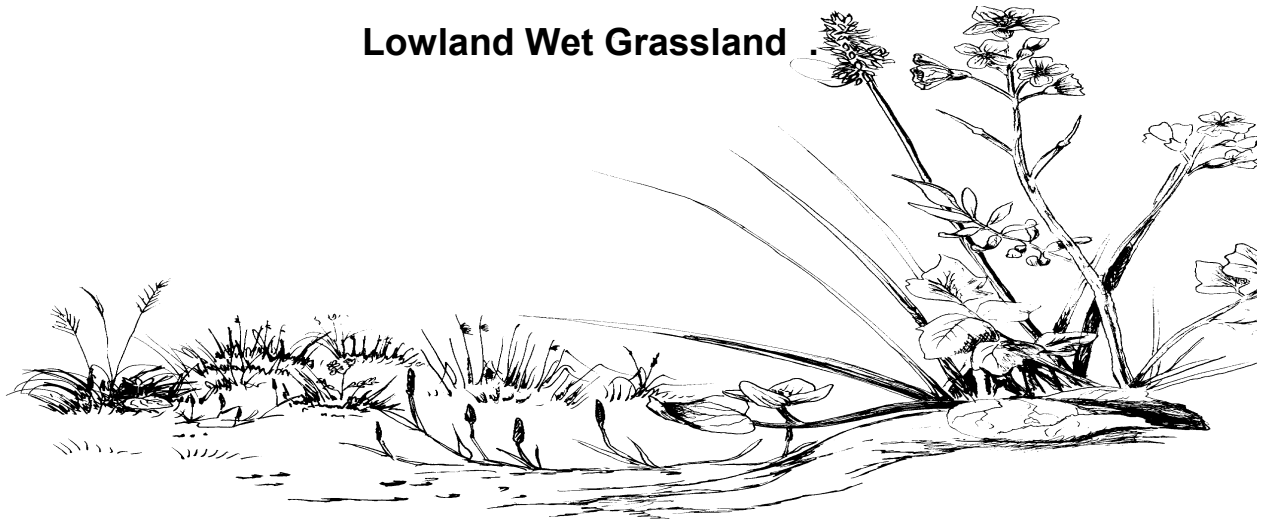
Advisory

- Advise on heathland management and restoration. (**SWMHP**)
- Promote the biodiversity and landscape value of heathland to the public and landowners. (**SWMHP, SBAP Partnership**)
- Maintain ongoing liaison with relevant agencies to ensure best practice in heathland management and re-creation. (**SWMHP**)

Complementary Plans

The UK Lowland Heathland HAP
Staffordshire Grassland HAP
Staffordshire Solitary Bees & Wasps SAP
Staffordshire Nightjar SAP
Staffordshire Woodlark SAP
Staffordshire Mosses HAP

Lowland Wet Grassland



Objectives

- Maintain the existing important areas of lowland wet grassland by encouraging appropriate management.
- Restore degraded areas of lowland wet grassland by promoting appropriate management.
- Increase the amount of lowland wet grassland in appropriate areas by creation and re-creation.

Targets

- Prevent any further loss of important (grade 1 SBI or better) lowland wet grassland.
- To place into management 1500ha of lowland wet grassland by 2010.
- Create 500ha of lowland wet grassland in target areas by 2010.
- Of the above: create sixty hectares of wet grassland (in extensive blocks over twenty hectares) in the Trent / Tame valley through restoration of mineral workings and the Central Rivers Project.

Achievements to Date (November 1998 - March 2001)

- 282.63ha of wet grassland have been created so far with the 2010 target of 200ha complete.
- 412ha have been placed into appropriate management through the Countryside Stewardship, and National Forest Tender Schemes and by various organisations.

Current Action

Protection & Policy

- Lowland wet grassland has been listed as a costed Key Habitat in the UK Steering Group report.
- A number of sites containing unimproved lowland wet grassland have been notified as SSSIs.
- A number of sites containing unimproved lowland wet grassland have been classified as Grade 1 SBIs.

Management, Research & Survey

- A Staffordshire Wildlife Trust and FWAG project has targeted landowners of wet grassland in the Sow and Trent Valley to take up Countryside Stewardship Schemes.
- Severn Trent and EA are undertaking wet grassland restoration along the Trent in Stafford Borough.
- Countryside Stewardship Scheme provides grant aid for the management of wet pasture.
- An RSPB scheme (in partnership with English Nature) currently operates within the County providing information and part-funding to landowners wishing to manage wet grassland for wading birds through Countryside Stewardship.
- A grassland restoration strategy (unpublished) has been produced by SWT to determine areas of potential restoration for the County.
- A 'Restoring Power to the Wetlands' project (managed by Staffordshire Wildlife Trust and funded by Powergen) operates in the east of Staffordshire.

Action Plan

UK Lead Organisation: English Nature [Coastal and Floodplain Grazing Marsh]

Policy

- Ensure any examples of lowland wet grassland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate lowland wet grassland sites meeting the SSSI criteria are designated. (**EN**)
- Promote the use of Sustainable Drainage Systems in all new development from 2001. (**SBAP Partnership**)

Land Management

- Seek to restore and create further areas of lowland wet grassland in appropriate areas. (**DEFRA, FWAG, Mineral Companies, SWMHP, Developers, FoM, TNF, Landowners**)
- Seek to target all remaining lowland wet grassland for grant aid, such as Countryside Stewardship. (**DEFRA, FWAG**)
- Seek restoration / creation of grassland at a strategic level through restoration of gravel pits along the Trent and Tame corridors. (**CRP**)
- Identify four hydrological units in excess of ten hectares for restoration. (**Minerals Companies**)
- Seek to reinstate 'natural washlands' through flood storage. (**EA, IDB**)
- Ensure that flood defence schemes are undertaken in an ecologically sensitive manner. (**EA, IDB**)
- Identify opportunities for habitat creation, giving priority to those that link existing sites. (**SWT**)

Monitoring and Research

- Repeat Lowland Breeding Wader Survey at regular intervals to assess population changes on lowland wet grassland. (**WMBC**)
- Re-survey all good examples of lowland wet grassland in 2005 and 2010 to assess their condition. (**SBAP Partnership**)
- Carry out research into the effect of ground water abstraction on marshy grassland and review abstraction licences accordingly. (**EA**)
- Ensure water level management plans are produced for all lowland wet grassland SSSIs. (**EN, IDB**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Ensure that all landowners are aware of any management grants available for lowland wet grassland. (**DEFRA, FWAG**)
- Promote the biodiversity and landscape value of lowland wet grassland to children, the public and landowners. (**SBAP Partnership**)

Complementary Plans

UK Coastal and Floodplain Grazing Marsh HAP
Staffordshire Reedbed HAP
Staffordshire Streams & Rivers HAP
Staffordshire Lakes, Ponds & Canals HAP
Staffordshire Small Pearl-bordered Fritillary SAP
Staffordshire Grass Snake SAP
Staffordshire Lapwing SAP
Staffordshire Skylark SAP
Staffordshire Snipe SAP

Unimproved Neutral Grassland



Objectives

- Maintain the existing important areas of unimproved neutral grassland, encouraging appropriate management and promoting environmentally sensitive management of adjoining land.
- Restore degraded areas of unimproved neutral grassland by promoting appropriate management.
- Increase the amount of unimproved neutral grassland in appropriate areas by creation and re-creation.

Targets

- Prevent any further loss of unimproved neutral grassland within Staffordshire from 2001 onwards.
- Create 250ha of unimproved neutral grassland by 2010.
- Place into management 500ha of semi-improved neutral grassland and increase its floristic diversity by encouraging appropriate ongoing management by 2010.

Achievements to Date (November 1998 - March 2001)

- A total of 74.62 hectares of unimproved neutral grassland has been restored and / or created through the Countryside Stewardship Scheme, National Forest Tender Schemes, SWT and Millennium Greens.
- 147.53ha of hay meadow created through Countryside Stewardship.

Current Action

Protection & Policy

- A number of unimproved grassland sites have been notified as SSSIs.
- A number of unimproved grassland sites have been classified as Grade 1 SBIs.
- Lowland hay meadow has been listed as a key habitat in the UK Steering Group report.
- Lowland hay meadows are listed in the EC Habitats directive, for special attention.

Management, Research & Survey

- A number of unimproved grassland SSSIs are managed for their nature conservation interest (both English Nature and Staffordshire Wildlife Trust).
- The Countryside Stewardship Scheme provides grant aid for the management of hay meadows.
- English Nature support the positive management of grassland SSSIs through their Wildlife Enhancement Scheme.
- A grassland restoration strategy (unpublished) has been produced by SWT to determine areas of potential restoration for the County.

Action Plan

UK Lead Organisation: **Countryside Council for Wales (CCW) [Lowland Meadows]**

The CCW leads on a particular habitat (Lowland Meadows). This does not include other habitats within the Unimproved Neutral Grassland Action Plan such as upland hay meadows.

Policy

- Ensure any examples of unimproved neutral grassland that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate unimproved neutral grassland sites meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to restore and create further areas of unimproved neutral grassland in appropriate areas. (**DEFRA, FWAG, Mineral Companies, Developers, FoM, TNF and Landowners**)
- Ensure that no inappropriate tree planting occurs in unimproved neutral grassland. (**FC**)
- Seek to ensure that all good examples of unimproved neutral grassland are appropriately managed through the uptake of agri-environment schemes. (**DEFRA, FWAG, TNF**)
- Identify opportunities for habitat creation, giving priority to those that link existing sites. (**SWT**)

Monitoring and Research

- Re-survey all good examples of unimproved neutral grassland in 2005 and 2010 to assess their condition. (**SBAP Partnership**)
- Identify sources of seed within the BAP area (i.e. existing hay meadows) for use in habitat creation schemes. (**SWT**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Ensure that all landowners are aware of any management grants which may be available for neutral grassland e.g. Countryside Stewardship. (**DEFRA, FWAG**)
- Promote the biodiversity and landscape value of unimproved neutral grassland to the public and landowners. (**SBAP Partnership**)

Complementary Plans

Staffordshire Acid Grassland HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Calcareous Grassland HAP
Staffordshire Skylark SAP
Staffordshire Lapwing SAP
Staffordshire Dyer's Greenweed SAP
Staffordshire Pink Meadow Cap SAP

Inland Saltmarsh



Objectives

- Maintain the extent and quality of inland saltmarsh in Staffordshire.

Targets

- Ensure that there is no net loss of saltmarsh in Staffordshire by 2000.
- Ensure that management of Pasturefields and Astonfields takes account of hydrological conditions by 2001.

Achievements to Date (November 1998 - March 2001)

- Ongoing management of Pasturefields SSSI by Staffordshire Wildlife Trust.
- Hydrological study of Pasturefields.

Current action

Protection & Policy

- Pasturefields Saltmarsh is designated an SSSI and is a candidate Special Area of Conservation.
- Pasturefields is owned and managed by the Staffordshire Wildlife Trust.
- Astonfields is designated a Grade 1 Site of County Biological Importance.
- Astonfields is owned and managed by Stafford Borough Council.
- A scoping exercise has been undertaken by Staffordshire County Council to determine other possible sites with saline influences.

Management, Research & Survey

- Astonfields SBI actively managed for nature conservation.
- Pasturefields SSSI actively managed for nature conservation.

Action Plan

UK Lead Organisation: **English Nature [Coastal and Floodplain Grazing Marsh]**

Protection & Policy

- Ensure any examples of inland saltmarsh that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate inland saltmarsh sites meeting the SSSI criteria are designated. (**EN**)

Land Management

- Continue appropriate management on all known sites. (**SWT, MEB, SBC**)

Monitoring and Research

- Conduct further investigation to determine the exact origins of the saline influence. (**SBAP Partnership**)
- Carry out research and survey into the occurrence of other saltmarsh sites in Staffordshire. (**SBAP Partnership**)
- Carry out research into the hydrology of Pasturefields and Astonfields. (**SBAP Partnership**)
- Seek to monitor the management of this habitat throughout the County. (**SBAP Partnership**)

Advisory

- Promote the biodiversity and landscape value of inland saltmarsh to the public and landowners. (**SBAP Partnership**)

Mosses



Objectives

- Maintain existing mosses by resisting further losses or degradation, promoting appropriate, sustainable management and encouraging environmentally sensitive management of adjoining land.
- Restore degraded mosses by promoting appropriate management, including the restoration of water levels and the clearance of scrub.

Targets

- Ensure all existing mosses are maintained in a favourable condition by 2010.
- Initiate restoration on all degraded mosses by 2005.

Achievements to Date (November 1998 - March 2001)

- SWT have purchased 23.33ha of land adjacent to Loynton Moss SSSI with a view to restoration and protection of the current peat bog of 13ha. A hydrological monitoring survey has been commissioned at Loynton Moss SSSI for the protection of the bog. Expected completion 2002.

Current Action

Protection & Policy

- All the current intact mosses within Staffordshire are notified as SSSIs.
- Two degraded mosses are classed as Grade 1 SBIs.
- Biodiversity and landscape value have been promoted to local parish councils via presentations through SWT.
- A Regional Mosses and Meres Group has been established.

Management, Research & Survey

- All three intact Mosses are managed for their nature conservation interest (one by English Nature and two by Staffordshire Wildlife Trust).
- The landowners of two former peat bogs have been contacted to ask if they would allow feasibility studies to be carried out on their land. Limited progress to date.

Action Plan

Regional Lead Organisation: **Meres and Mosses Forum**

Policy

- Ensure any examples of mosses that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Continue to manage all active peat bogs and ensure that these sites keep their integrity as active raised bogs. (**EN, SWT**)
- Secure appropriate management of the 'buffer zone' land surrounding Loynton Moss. (**EN, SWT**)
- Seek to restore two former mosses within the Mosses and Meres Natural Area. (**EN**)

Monitoring and Research

- Maintain inventory of Staffordshire mosses. (**EN**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT, EN**)

Advisory

- Promote the biodiversity and landscape value of mosses to the public and landowners. (**SBAP Partnership**)

Complementary Plans

Staffordshire White-faced Darter SAP
Staffordshire Snipe SAP
Staffordshire Lowland Heathland HAP
UK Raised Bog HAP

Ponds, Lakes and Canals



Objectives

- To maintain the nature conservation value of existing ponds, lakes and their catchment areas through favourable management.
- Increase the number of open water bodies with nature conservation potential within the county.

Targets

- Aim to establish favourable conservation management on all good examples by 2010.
- Create 200 new non-recreational (not stocked with fish) ponds on land of low conservation value by 2010.
- Restore 200 non-recreational ponds on land of low conservation value by 2010.
- Create 80 hectares of shallow, sinuous pools in four blocks of c.20ha in gravel pits. These should also include numerous small islands for breeding and wintering wildfowl.
- Restore one farm pond per Parish by 2010.
- Seek to achieve all appropriate biodiversity targets in the British Waterways Action Plan within the County.

Achievements to Date (November 1998 - March 2001)

- Five lakes have been created (various sources).
- Over eighty ponds have been created in the County by various organisations.
- Ten balancing pools of unknown quality to wildlife have been created throughout the County (data from the Environment Agency).
- Seventeen ponds have been restored through the Countryside Stewardship Scheme.

Current Action

Protection & Policy

- A number of canals, lakes and pools have been notified as SSSIs.
- A number of sites have been classified as grade 1 SBIs.
- Law protects species such as great crested newts. This protection includes their surrounding habitat.
- Pond and lake creation / restoration is targeted in various LEAPS which operate within the County.
- Standing Eutrophic Water has been listed as a costed, key habitat in the UK Steering Group Report.

Management, Research & Survey

- A number of SSSIs, Local Nature Reserves and other nature reserves are actively managed.
- DEFRA's Countryside Stewardship Scheme includes an option for pond management.
- The County Council have produced a pond pack to help creation and management of ponds and FWAG produces an advisory booklet for landowners that include a section on ponds.
- British Waterways has completed a full survey of all canals in the county with a management plan produced.
- Inventory of ponds for Staffordshire Moorlands completed by Staffordshire Wildlife Trust.
- A 'Restoring Power to the Wetlands' project (managed by Staffordshire Wildlife Trust and funded by Powergen) operates in the east of Staffordshire.

Action Plan

UK Lead Organisation: Environment Agency [Eutrophic Standing Waters]

Policy

- Ensure any examples of standing water bodies that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate standing water bodies meeting the SSSI criteria are designated. (**EN**)
- Promote the use of Sustainable Drainage Systems in all new development from 2001. (**SBAP Partnership**)

Land Management

- Seek to restore and create further lakes and ponds in appropriate areas. (**Mineral Companies, EA, Developers, FoM, TNF and Landowners**)
- Promote best practices in farming and encourage the implementation of Farm Waste Management Plans. (**DEFRA**)
- Prepare water level management plans in respect of key sites. (**EA**)
- Encourage landowners to construct and sympathetically manage new pools by using agri-environment schemes such as Countryside Stewardship. (**DEFRA, FWAG, TNF**)
- Development of integrated catchment management plans. (**EA**)
- Reduce sheet piling of canals to a minimum. Incorporate mitigation works where necessary and research best mitigation techniques. (**BWB**)
- Ensure abstraction procedures do not affect key sites. (**EA**)
- Ensure the restoration of gravel pits incorporates priority nature conservation interests. (**CRP, Minerals Companies**)

Research and Monitoring

- Identify all key sites and create an inventory of all key standing water sites within the county by 2005. (**SBAP Partnership**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

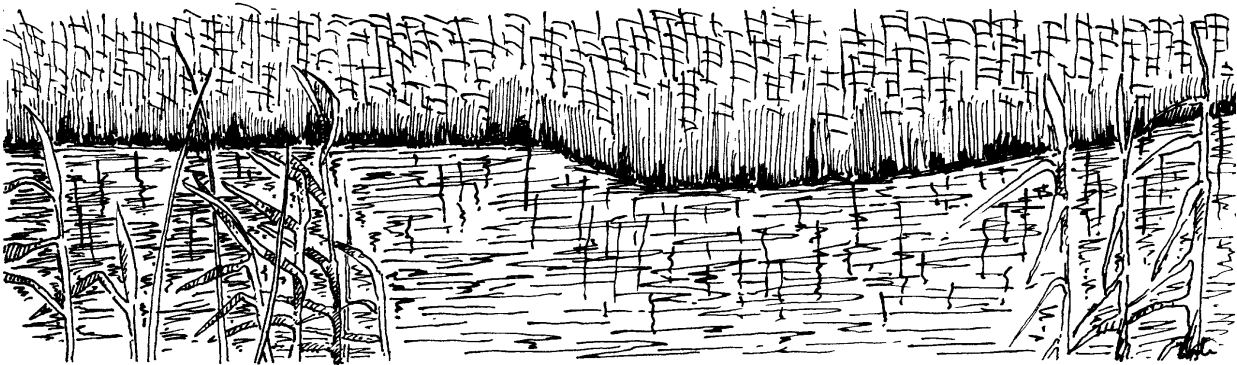
Advisory

- Promote the biodiversity and landscape value of canals, lakes and pools to the public and landowners. (**SBAP Partnership, BWB**)

Complementary Plans

UK Eutrophic Standing Water HAP
Staffordshire Reedbed HAP
Staffordshire Streams & Rivers HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Water Vole SAP
Staffordshire Floating Water-plantain SAP
Staffordshire Grass Wrack Pondweed SAP
Staffordshire Great Crested Newt SAP
Staffordshire Grass Snake SAP
Staffordshire Natterjack Toad SAP
Staffordshire White-clawed Crayfish SAP
Staffordshire Pipistrelle Bat SAP

Reedbeds



Objectives

- Maintain the existing important areas of reedbed by encouraging appropriate management.
- Increase the amount of reedbed in appropriate areas by creation and re-creation.

Targets

- Ensure all reedbeds over 0.5ha in size are managed for wildlife interest by 2005.
- Create 100ha of reedbed by 2010.
- Of the above: Create at least four reedbeds (in 20-hectares or greater blocks) along the Trent and Tame valley, through restoration of gravel pits and the Central Rivers Project.

Achievements to Date (November 1998 - March 2001)

- 3 hectares of reedbed have been created by Hanson Aggregates at Middleton and Barton Quarries.

Current Action

Protection & Policy

- Two sites containing small areas of reedbed have been notified as SSSIs.
- Reedbed has been listed as a costed key habitat in the UK Steering Group Report.
- The Central Rivers Project has now been launched. This includes a strategy to increase the amount of wetland and riparian habitat along some of the riverways in Staffordshire.
- Reedbed creation is targeted in various LEAPS that operate within the County.

Management, Research & Survey

- A number of sites containing reedbeds are managed actively for their conservation.
- Funding is available through the Countryside Stewardship scheme for management of reedbeds.
- A 'Restoring Power to the Wetlands' project (managed by Staffordshire Wildlife Trust and funded by Powergen) operates in the east of Staffordshire.

Action Plan

UK Lead Organisation: English Nature

Policy

- Promote the strategy for the creation of large reedbeds in the Trent and Tame Valleys. (*CRP*)
- Ensure that all creation is carried out in a strategic manner on a region wide basis that fits in with national targets. (*RSPB, EN, EA*)
- Promote the inclusion of reedbed habitat in after-use schemes as a condition of mineral extraction where appropriate. (*SBAP Partnership*)
- Promote the sustainable use of reedbeds by local thatching and craft industries. (*SBAP Partnership*)
- Promote the use of Sustainable Drainage Systems in all new development from 2001. (*SBAP Partnership*)
- Ensure any examples of reedbed that meet the required criteria are given SBI status. (*SBI Grading Committee*)
- Ensure appropriate reedbed sites meeting the SSSI criteria are designated. (*EN*)

Land Management

- Seek to create and manage further areas of reedbed in appropriate areas. (*Mineral Companies, CRP*)
- Encourage the development of sympathetic water abstraction and water level management policies in order to protect existing reedbeds. (*EA, IDB*)
- Where appropriate, seek to install reedbeds and use reedbeds as filters and for nitrate removal at water treatment sites. (*Water Companies*)
- Lobby for expansion of existing schemes such as Countryside Stewardship to encourage reedbed creation. (*Nature Conservation Organisations*)
- Prepare and implement water level management plans for all priority sites. (*EA, IDB*)
- Promote the use of reedbeds in balancing pond schemes to reduce adverse effects from urban run-off and further research into flow rates through reedbeds to maximise filtering benefits. (*EA*)

Monitoring and Research

- Survey new sites for signs of colonisation by key species on a once yearly basis. (*RSPB, WMBC*)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (*SWT*)
- Produce a County reedbed inventory by 2005. (*SBAP Partnership*)

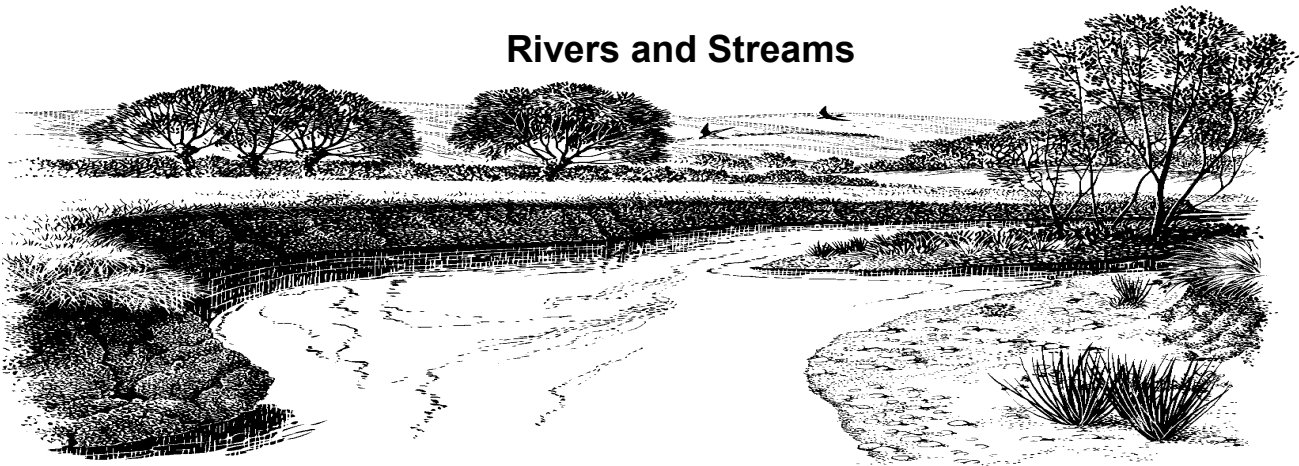
Advisory

- Promote the biodiversity and landscape value of reedbed to the public and landowners. (*SBAP Partnership*)
- Promote reed bed creation to minerals companies. (*SBAP Partnership*)

Complementary Plans

UK Reedbed HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Lakes, Pools and Canals HAP
Staffordshire Wet Woodland HAP
Staffordshire Streams and Rivers HAP
Staffordshire Water Vole SAP
Staffordshire Otter SAP

Rivers and Streams



Objectives

- Maintain and improve the quality of water in Staffordshire's rivers and streams so that they can support a higher biodiversity.
- Maintain existing important natural river features.
- Restore and create further 'natural' river features in key areas.

Targets

- Restore 30km of river corridor by 2010.
- Restore the Trent and Tame river corridors between Burton-upon-Trent and Tamworth (through the Central Rivers Project) to achieve multi-purpose use by 2018. Include provisions to increase the level of habitats in the area - in particular, lowland wet grassland, reedbeds and associated woodlands to specifically meet the regional habitat / species action plan targets.
- Ensure that all rivers reach their appropriate Statutory Water Quality Objectives (SWQOs) by 2010.
- Install 50km of riverside fencing by 2010.
- Create 50 off-channel and in-channel features by 2010.
- 50km of river with bank side re-profiling by 2010.

Achievements to Date (November 1998 - March 2001)

- Hanson Aggregates, Environment Agency, BTCV and National Forest Tender Schemes have restored 7.65km of river corridor at various locations.

Current Action

Protection & Policy

- Some key stretches of rivers have been notified as SSSIs.
- Certain riverine species such as otters, water voles and white-clawed crayfish plus their occupied habitat are legally protected under The Wildlife & Countryside Act, 1981 and The Conservation (Natural Habitats & Countryside) Regulations, 1994.
- River Trent Action Plan has been produced for the City of Stoke-on-Trent.
- River improvements are targeted in various LEAPS that operate within the County.

Management, Research & Survey

- EA departments manage rivers to balance interests of conservation, water resources, flood defence, pollution control fisheries and sustainable development. LEAPs provide a framework for public consultation regarding management work based on major river catchment areas.
- Statutory Water Quality Objectives (SWQOs) are set for all river stretches.
- Agri-environmental grant schemes e.g. Countryside Stewardship (DEFRA) provide incentives for conservation based management of river corridors. FWAG, SWT (Otter & Water Vole Project) and RSPB also provide recommendations for landowner management options.
- A 'Restoring Power to the Wetlands' project (managed by Staffordshire Wildlife Trust and funded by Powergen) operates in the east of Staffordshire.

Action Plan

Policy

- Ensure that SWQOs will support ecosystems and species of that river type and geographic and topographic location, with no deterioration in quality. (**EA**)
- Review consents that allow excessive abstraction. (**EA**)
- Ensure that Drought Orders and Permits do not compromise the wildlife and ecology of affected watercourses. (**EA**)
- Develop and implement strategies to protect headwaters. (**EA**)
- Promote the use of Sustainable Drainage Systems in all new development from 2001. (**SBAP Partnership**)
- Ensure any examples of rivers or streams that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate rivers or streams meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to restore river courses and create further 'natural' river features in key areas. (**Mineral Companies, Developers, Water Companies**)
- Promote the sympathetic management of rivers and their corridors through existing projects, including buffer zones and wildlife corridors. (**EA, SWT**)

Monitoring and Research

- Reassess the potential damage to groundwater fed wetland features due to groundwater abstractions in exempt areas. (**EA**)
- Identify and survey headwater streams. (**EA**)
- Seek to survey rivers and streams with a view to incorporating good stretches into the SBI site system. (**SBAP Partnership**)
- Seek to carry out invertebrate surveys of key stretches or river supporting exposed riverine sediment. (**EA, SWT**)
- Seek to monitor the creation, restoration and management of this habitat throughout the County. (**SWT**)

Advisory

- Promote the biodiversity and landscape value of rivers and streams to the public and landowners. (**SBAP Partnership**)
- Promote good advice on best approaches to river corridor, catchment management and agricultural practices. (**EA, SWT**)

Complementary Plans

Staffordshire Wet Woodland HAP
Staffordshire Reedbed HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Otter SAP
Staffordshire Water Vole SAP
Staffordshire White-clawed Crayfish SAP

SPECIES ACTION PLANS

MAMMALS

Brown Hare
Noctule Bat
Otter
Pipistrelle Bat
Water Vole

BIRDS

Barn Owl
Farmland Seed-eating Birds
Grey Partridge
Lapwing
Nightjar
Skylark
Snipe
Woodlark

REPTILES, AMPHIBIANS AND FISH

Atlantic Salmon
Grass Snake
Great Crested Newt
Natterjack Toad

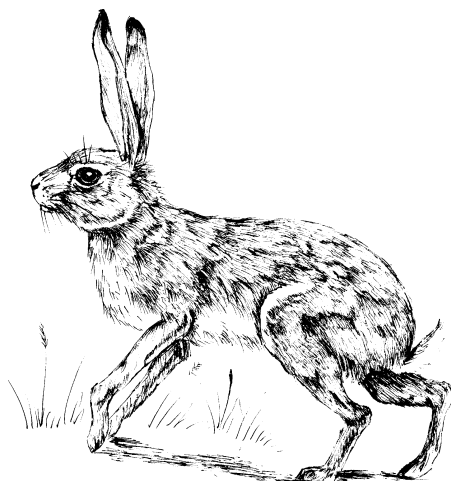
INVERTEBRATES

Bog bush-cricket
Ground Nesting Solitary Bees & Wasps
Small Pearl-bordered Fritillary
White-faced Darter
White-clawed Crayfish

PLANTS AND FUNGI

Dyer's Greenweed
Hybrid Bilberry
Floating Water-plantain
Grass Wrack Pondweed
Native Black Poplar
Pink Meadow Cap

Brown Hare (*Lepus europaeus*)



Objectives

- To maintain the current existing populations within Staffordshire.
- To expand the existing populations in Staffordshire.

Targets

- Double the spring numbers in Staffordshire by 2010.

Achievements To Date (November 1998 - March 2001)

- Countryside Stewardship Schemes may be benefiting this species and may be a good mechanism for reaching the targets set above although this is not currently being monitored.
- An initial data search was undertaken and a distribution map has been produced. The brown hare is generally widespread, found throughout the County but with a large number of records in the northern uplands.
- A desktop survey of local farmers found that 80% had "good" numbers of brown hare.

Current Action

Protection & Policy

- Hares are game species and enjoy some limited protection through the Ground Game Act 1880 and the Hare Protection Act 1911. They may not be offered for sale between 1 March and 31 July, a discouragement to shooting during the main breeding period.
- Brown hare has been listed as a costed, key species in the UK Steering Group Report.
- Rodbaston College is lead organisation for the brown hare in Staffordshire.
- The Mammal Society and The Game Conservancy Trust are the lead organisations for the brown hare in the UK.

Management, Research & Survey

- Survey and recording is undertaken by Staffordshire Mammal Group.
- Game Conservancy Trust study on the effects of field sports and fox predation on hares, in conjunction with regular spring census of hare numbers.
- Advice on habitats available from Staffordshire Wildlife Trust, the Staffordshire Mammal Group and FWAG.
- An SBAP Species Recording Card has been produced and circulated for the brown hare.

Action Plan

UK Lead Organisations: **The Mammal Society & The Game Conservancy Trust**
County Lead Organisation: **Rodbaston College**

Policy

- Seek to ensure that policy makers for agricultural land are 'Hare Aware'. (**SBAP Partnership, SMG**)

Management

- Seek to target long term set-a-side to increase hare numbers, especially on the fringe of current distribution. (**DEFRA, FWAG**)
- Seek to manage non-agricultural land e.g. amenity grassland and parkland to encourage hares. (**Landowners, Developers**)
- Seek to incorporate beneficial brown hare management practices into Staffordshire County Council farms estate tenancy agreements. (**County Farm Estates**)

Monitoring and Research

- Establish the past and current range of the brown hare population in Staffordshire through desktop study and field surveys. (**SMG, SER, Rodbaston College**)
- Undertake second national hare survey within Staffordshire. (**SMG**)
- Collate Game Bag Data collected by the Game Conservancy for Staffordshire. (**SMG, Rodbaston College**)
- Collate Game Conservancy spring hare census for Staffordshire. (**SMG, Rodbaston College**)
- Continual monitoring of the species in Staffordshire via local mammal atlases. (**SER, SMG**)

Advisory

- Contact with landowners to make them 'Hare Aware' as well as distributing the 'Hare Aware' fact sheet. (**SMG, Rodbaston College**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

UK Brown Hare SAP
Staffordshire - All Grassland HAPs
Staffordshire Arable Field Margins HAP
Staffordshire Lowland Wood-pasture & Parkland HAP

Noctule Bat (*Nyctalus noctule*)



Objectives

- To maintain all known current populations.
- To safeguard all known roost sites.
- To retain and enhance suitable habitat to increase the distribution and population density.

Targets

- To maintain all known existing populations of Noctule within the County from 2001 onwards.

Achievements To Date (November 1998 - March 2001)

- Noctules been recorded at 25 locations since 1998.
- Records of Noctules have now been entered onto the biological database, giving year 2000 base-line data for this species.
- 13 potential roosts have been created through National Forest Tender Schemes.
- 46 promotional events and walks held (various sources).

Current Action

Protection & Policy

- The species is protected by national legislation and European treaties including the Wildlife and Countryside Act (1981) and the Conservation / Natural Habitats, Regulations 1994, the Bern and Bonn conventions, CRoW Act 2000 and the EC Habitats and Species Directive.
- The Staffordshire Bat Group and the South East Staffordshire Bat Group are the lead organisations for this species.

Management, Research & Survey

- The species is included in the UK National Bat Monitoring Programme.
- The species is proposed for international collaboration on migration studies and population monitoring under the Agreement on the Conservation of Bats in Europe (Bonn Convention).
- The Bat Conservation Trust is carrying out research to identify roosting and foraging requirements of this species.
- Staffordshire Bat Group and South East Staffordshire Bat Group collect data on distribution in the county.

Action Plan

County Lead Organisations: **Staffordshire Bat Group and South East Staffordshire Bat Group**

Policy

- Seek support for SBG and SEB to continue monitoring of roosts, survey of areas affected by proposed development and the provision of advice to tree surgeons, local authority forestry officers, foresters etc. (**SBAP Partnership**)
- Continue to develop the current training procedures for bat workers and other people whose occupational activities may bring them into contact with bats. (**BCT, SBG, SEB**)
- Adopt and develop management policies outlined in BCTs *Bats and Trees leaflet* and the *Aboricultural Association's Guidance Note 1: Bats*. Ensure minimum tree surgery required to meet obligations (e.g. safety) to trees suitable for roosting bats. (**BCT, SBG, SEB**)
- Ensure woodland incentive schemes (e.g. WIGS, and other relevant forestry schemes) and tree management policies (e.g. TPOs) cater for the conservation needs of Noctule bats. (**FC, LAs, TNF, FoM**)
- Liaison with local authorities to ensure the guidelines in PPG9 are followed and considered in local plans and development control. (**BCT, SBG, SEB, SWT**)
- Target developers, planning authorities and other key decision makers regarding the current procedures concerning developments that may affect bats. (**BCT, SBG, SEB, SWT**)

Land Management

- Ensure that appropriate survey work is carried out for any development proposal that may affect Noctules. (**LAs, Developers, EN**)
- Use bat boxes where appropriate to enhance suitable habitat e.g. coniferous woodland and woodland with few or no mature trees. (**SBG, SEB, TNF, FoM, Developers, Landowners**)
- Consider providing potential hibernacula by converting pillboxes and icehouses on sites. (**Landowners**)

Monitoring and Research

- Continue participation in the National Bat Monitoring Programmes. Increase survey work to identify summer roosts. (**SBG, SEB**)
- Carry out a review of current collection, handling and dissemination of bat distribution and roost data with the aim to improve the current database and access to the data it holds. (**SER, SBG, SEB**)
- Investigate habitat requirements and ecology in Staffordshire to assist in the formulation of management plans and enable appropriate advice. (**BCT, SBG, SEB**)
- Seek to target appropriate habitat for potential roosts using GIS. (**SBG, SEB**)

Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Undertake 15 promotional events and walks each year promoting the conservation of Noctule by 2010. (**SBG, SEB**)
- Improve the communication process for people wanting to contact national / local batline and registered bat workers. (**SBG, SEB, BCT**)

Complementary Plans

Staffordshire Lowland Wood-pasture & Parkland HAP

Staffordshire Ancient & Semi-natural Broadleaved Woodland HAP

Otter (*Lutra lutra*)



Objectives

- To maintain and enhance current populations through good habitat management.
- To promote expansion of populations by the natural re-colonisation of river catchments.

Targets

- Restore breeding otters through natural re-colonisation to all Staffordshire river catchments by 2010.

Achievements To Date (November 1998 - March 2001)

- Otters are now present within all river catchments within Staffordshire.
- 39 artificial otter holts have been installed since November 1998.

Current Action

Protection & Policy

- Otters and their places of shelter (i.e. holts) are protected under Schedule 5 of the Wildlife & Countryside Act 1981 and Schedule 2 of the Conservation Regulations 1994.
- Otters are given European protection under the Bonn convention.
- The JNCC has prepared a Framework for Otter Conservation in the UK 1995-2000.
- The Water for Wildlife Project and the Environment Agency are the lead partners for the delivery of the Species Action Plan at a county level.

Management, Research & Survey

- The Habitat Scheme Water Fringe Option administered by DEFRA and the Countryside Stewardship Scheme are being used to manage habitat in pilot areas. DEFRA provides advice on creating otter havens on land within agri-environment schemes.
- FA, FE and the National Forest promote management to favour otter conservation.
- An SBAP Species Recording Card has been produced and circulated for the otter.

Action Plan

UK Lead Organisations: **The Water For Wildlife Project & Environment Agency**

Policy

- To ensure all Staffordshire LEAPs include specific measures for otter conservation including the creation of otter safe havens. (**EA**)
- Seek to reduce the number of accidental otter mortalities: all new bridges to be designed to allow otter passage at all water levels and mitigation schemes to install otter underpasses at identified accident black spots (**HA, SCC, EA**); the provision of otter guards on fyke nets. (**EA**).
- To resist culverting of watercourses and seek to open up culverts where possible. (**EA, LAs**)

Land Management

- Seek to gain landowner agreements on targeted areas using the Countryside Stewardship scheme where appropriate. (**DEFRA, FWAG, SWT**)
- To work with water companies to modify the grounds of suitable water treatment works and non-operational sites for otter habitat. (**SWT, Water Companies**)
- To ensure that all flood defence and routine river maintenance work is compatible with otter habitat needs. (**EA, Sow and Penk IDB, LAs**)
- To liaise with mink hunts to avoid disruption of occupied otter habitats. (**SWT**)
- To provide and / or protect a series of otter havens every five kilometres of river stretch and to install 100 artificial underground holts. (**Developers, Landowners, CLA, EA, SWT**)

Monitoring and Research

- To analyse Environment Agency Fisheries data for otter prey. (**EA, SWT**)
- To maintain a holt monitoring scheme. Check any possible impacts on holts such as disturbance, destruction etc. Ensure Environment Agency and EN are aware of holt sites. (**SWT**)
- To investigate potential danger points/ blocks to expanding distribution within the catchments - e.g. weirs, road / watercourse crossings. (**EA, SWT, SCC**)
- To ensure that all dead otters found are sent to EA for post-mortem and pesticide analysis. (**EA, SWT**)
- Seek to develop a standard methodology to analyse the level of pollution accumulation in Staffordshire's otter population. (**EA, Universities**)
- Seek to develop and implement methods to estimate otter numbers and permit population modelling e.g. DNA spraint analysis. (**EA, Universities, SWT**)
- Research into the effect on fishery lakes by otters to minimise possible conflicts between fisheries and otter conservation. (**EA, SWT**)

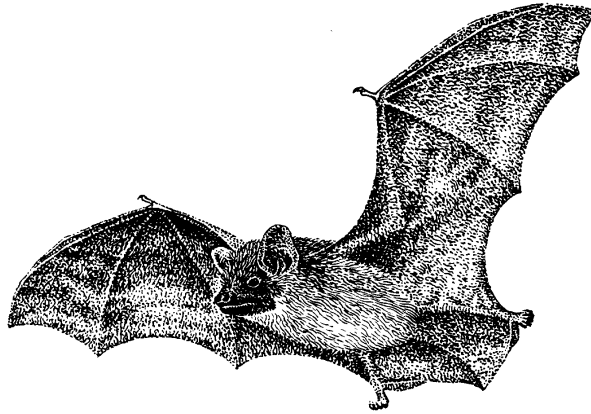
Advisory

- To set up, train and support an Otter Volunteer Network and run training days for key angling clubs, landowners, EA and water company conservation staff. (**SWT**)
- To inform the Highways Agency, consultancies and colleges training potential highways engineers and architects of the needs of otters in road schemes. (**SCC, EA**)
- To continue to raise awareness of otters and their needs with farmers, riparian owners, anglers and river users. (**EA, SWT**)
- To use the otter to continue to publicise the importance of water quality and riparian habitats to biodiversity. (**EA, Water Companies, SWT**)

Complementary Plans

UK Otter SAP
Staffordshire Rivers and Streams HAP
Staffordshire Canals, Lakes and Ponds HAP
Staffordshire Reedbeds HAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Wet Woodland HAP
Staffordshire White-clawed Crayfish SAP
Staffordshire Water Vole SAP

Pipistrelle Bat (*Pipistrellus pipistrellus* and *P. pygmaeus*)



Objectives

- To maintain all known current populations.
- To safeguard all known roost sites.
- To retain and enhance suitable habitat to increase the distribution and population density.

Targets

- To maintain the current population of Pipistrelle within the County from 2001 onwards.

Total Achievements To Date (November 1998 - March 2001)

- Records of Pipistrelle have now been entered onto the biological database, giving year 2000 base-line data for this species.
- 38 bat walks and 32 talks / presentations and displays have been held via various sources.
- 49 new Pipistrelle roosts have been found.

Current Action

Protection & Policy

- Bats and their roosts are protected by national and European legislation including the Wildlife and Countryside Act (1981) and the Conservation (Natural Habitats, etc) Regulations 1994, the Berne and Bonn conventions, CRoW Act 2000 and the EC Habitats and Species Directive.
- The Staffordshire Bat Group and the South East Staffordshire Bat Group are the lead organisations for this species.
- Pipistrelle has been listed as a costed, key species in the UK Steering Group Report.
- The Bat Conservation Trust is the Lead Organisation for this species in the UK.

Management, Research & Survey

- Use of bat boxes at selected sites e.g. Cannock Chase, Hem Heath Wood, Tittensor Wood.
- English Nature, Staffordshire Bat Group and South East Staffordshire Bat Group provide advice on bats in the county.
- The species is included in the UK National Bat Monitoring Programme.
- Staffordshire Bat Group and South East Staffordshire Bat Group collect data on distribution in the county.

Action Plan

UK Lead Organisation: **Bat Conservation Trust**
County Lead Organisations: **Staffordshire Bat Group and South East Staffordshire Bat Group**

Policy

- Seek support for SBG and SEB to continue monitoring of roosts, survey of areas affected by proposed development and the provision of advice to householders. (**SBAP Partnership**)
- Continue to develop the current training procedures for bat workers and other people whose occupational activities may bring them into contact with bats. (**BCT, SBG, SEB**)
- Liaison with local authorities to ensure the guidelines in PPG9 are followed and considered in local plans and development control. (**BCT, SBG, SEB, SWT**)
- Target developers, planning authorities and other key decision makers regarding the current procedures concerning developments that may affect bats. (**BCT, SBG, SEB, SWT**)

Land Management

- Promote the use of timber treatment chemicals that are non-toxic to bats. (**Building Materials Suppliers, SBG, SEB**)
- Provide advice on the integration of bat-compatible design features in appropriate buildings. (**EN, SBG, SEB**)
- Seek to encourage sympathetic management of land near to known roosts so as to support foraging bats. (**Householders, SWT, SBG, SEB, LAs**)
- Use bat boxes where appropriate, to enhance suitable habitat e.g. coniferous woodland. (**Landowners**)
- Consider providing potential hibernacula by converting pillboxes and ice-houses on sites. (**Landowners**)

Monitoring and Research

- Continue participation in the National Bat Monitoring Programmes. Increase survey work to identify summer roosts. (**SBG, SEB**)
- Improve species determination and data collection to distinguish both phenotypes. (**SBG, SEB**)
- Carry out a review of current collection, handling and dissemination of bat distribution and roost data with the aim to improve the current database and access to the data it holds. (**SER, SBG, SEB**)
- Investigate habitat requirements and ecology in Staffordshire to assist in the formulation of management plans and enable appropriate advice. (**BCT, SBG, SEB**)

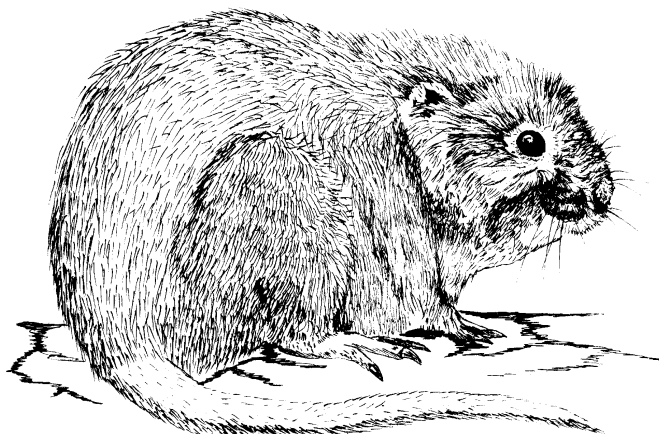
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Undertake 15 promotional events and walks each year promoting the conservation of Pipistrelle by 2010. (**SBG, SEB**)
- Improve the communication process for people waiting to contact national / local batline and registered bat workers. (**SBG, SEB, CT**)

Complementary UK Plans

UK Pipistrelle SAP

Water Vole (*Arvicola terrestris*)



Objectives

- To arrest the decline of the Water Vole population in Staffordshire.

Targets

- Restore 50 targeted sites within the county (particularly where recent local extinctions have occurred) to encourage natural re-colonisation by 2003.

Achievements To Date (November 1998 - March 2001)

- Management agreements currently exist with landowners on fifteen key sites.
- 106 Key sites have been identified in Staffordshire (1996-1999). Monitoring of these sites confirmed 32 extinctions and a complete cessation of breeding at a further 38 sites of the 106.
- 29 Key breeding sites remain in the county (73% decline since 1996).

Current Action

Protection & Policy

- Water vole is a protected species under Schedule 5 of the Wildlife and Countryside Act 1981, Section (a).
- Environment Agency and SWT are Lead Organisations for the Water Vole in Staffordshire.
- Water Vole has been listed as a costed, key species in the UK Steering Group Report.

Management, Research & Survey

- Staffordshire Wildlife Trust has recruited a Water Vole Project Officer, with help from funds from English Nature Species Recovery Programme.
- An SBAP Species Recording Card has been produced and circulated for the Water Vole.
- Advice on habitat management is available from SWT and EA.
- EA and EN have produced a Water Vole habitat management and conservation handbook.
- Water Vole conservation measures are now included on some of the latest LEAPs (e.g. Staffordshire Trent Valley).
- The EA is funding research into Water Vole ecology led by the Wildlife Conservation Research Unit, University of Oxford.

Action Plan

UK Lead Organisation: Environment Agency
Staffordshire Lead Organisations: Staffordshire Wildlife Trust and Environment Agency

Policy

- To ensure policy makers are aware of the need to retain the integrity of river corridors for the movement of species such as the Water Vole. (**EA, SWT, EN**)
- Seek to include actions to promote water vole conservation in catchment management and LEAPs for catchments with suitable habitat. (**EA**)
- Seek to enforce speed limits on navigable waterways. (**BW**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Management

- Where bank side and bed works are planned, seek to undertake a full survey for water voles. (**EA, IDB, BW**)
- To include Water Vole conservation in management plans for post-mineral extraction areas and initiatives. (**Mineral Companies, CRP**)
- To inform fisheries managers of water vole colonies to ensure their protection during fisheries management works, and to ensure beneficial enhancements are incorporated into fisheries and flood defence schemes and projects. (**EA, SWT**)
- Seek to restore suitable water vole habitat on watercourses at identified sites where there is a possibility of natural re-colonisation from existing colonies. (**EA, DEFRA, FWAG, BW**)
- Seek to provide riparian buffer strips adjacent to intensive agricultural land. (**EA, DEFRA, FWAG, BW**)

Monitoring and Research

- To survey and monitor all known sites to define the Staffordshire water vole distribution. (**SWT, EA**)
- To set up 'Key Sites' for Water Voles with an appropriate ongoing management and monitoring programme. (**SWT**)
- To monitor the distribution of mink in the target areas. (**SWT, EA**)
- To recruit, train and co-ordinate a network of voluntary surveyors to monitor water vole colonies and identify new populations. Target voluntary survey work for areas outside catchment surveys where knowledge is limited e.g. canals, farm ponds, marl pits, gravel pits etc. (**SWT**)
- To coordinate university based research projects into water vole ecology and the effects of potential limiting factors in a local context (**SWT, EA, BW, Universities**)
- Monitor all water vole key sites in Staffordshire every 12 months (during the breeding season March-October). (**SWT**)

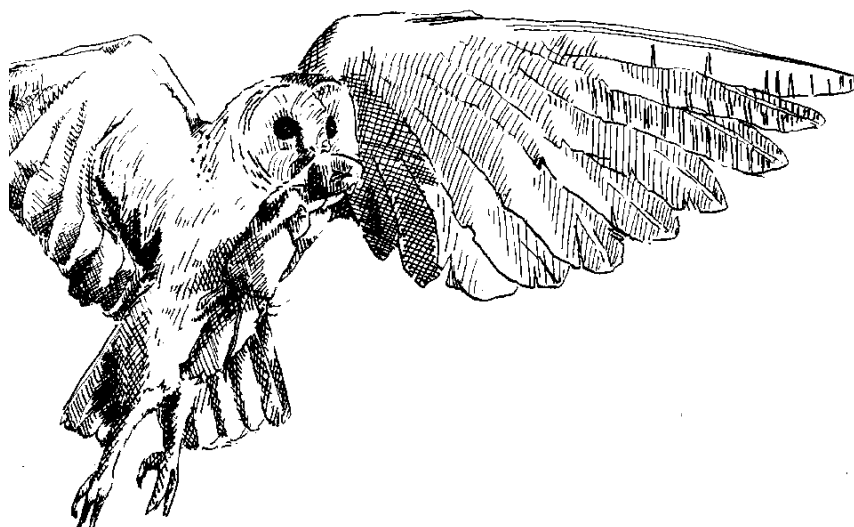
Advisory

- To advise riparian landowners and managers about the vulnerability of water voles to inappropriate riparian management, and give advice on suitable management. (**EA, SWT**)
- Increase species awareness of water vole for the public and landowners through education, promotion and events. (**EA, SWT**)

Complementary Plans

UK Water Vole SAP
Staffordshire Otter SAP
Staffordshire Lowland Wet Grassland HAP
Staffordshire Streams and Rivers HAP
Staffordshire Canals, Lakes and Pools HAP
Staffordshire Reedbed HAP

Barn Owl (*Tyto alba*)



Objectives

- To reverse the decline in the Staffordshire barn owl population.

Targets

- To double the Staffordshire population by 2010, and to have increased it to 100 pairs by 2020.

Total Achievements To Date (November 1998 - March 2001)

- The Environment Agency has been providing nest boxes to landowners along stretches of floodplain in East Staffordshire.

Current Action

Protection & Policy

- The barn owl receives special protection as a Schedule 1 species under the UK Wildlife and Countryside Act, 1981 (amended by the CRow Act, 2000).

Management, Research & Survey

- DEFRA's Countryside Stewardship Scheme is available across the county, and includes measures such as management of hedgerows and arable grass margins, provision of beetle banks, reversion of arable land to grassland, extensive management of pasture and wet meadows, hay meadow management and the provision of fenced grass margins within improved grasslands. Areas of set-aside with high conservation status can also be entered into the scheme. All these measures can help provide suitable hunting habitat for barn owls.
- Habitat management prescriptions within the South-West Peak ESA, help provide suitable habitats for barn owls.
- Set-aside can be managed to provide permanent rough grass cover. A new Multi-Annual Set-Aside option allows for 5 year environmental management plans with an assured income for landowners.

Action Plan

Policy

- Lobby DEFRA to change the Countryside Stewardship Scheme so that the provision of barn owl nest-boxes is through a general payment and not only available through a 'special project'. (**Nature Conservation Organisations**)
- Seek to ensure CSS county target statement identifies key areas for barn owl habitat and nest box provision. (**DEFRA**)
- Seek to incorporate beneficial farmland bird management practices into Staffordshire County Council farms estate tenancy agreements. (**County Farm Estates**)

Management

- Seek to ensure Countryside Stewardship Scheme applications cater for barn owls, i.e. target CSS at known barn owl locations; ensure applications with extensive grass margins or in floodplains include nestbox provision. (**DEFRA, FWAG, CRP**)
- Seek to develop a programme of CSS promotional and training events in farmland bird 'hotspot' areas. (**CLA, DEFRA, FWAG, Nature Conservation Organisations**)
- Promote full use of the new Multi-Annual Set Aside option to deliver 5 year management plans to benefit farmland birds including barn owl. (**RSPB, DEFRA**)
- Develop links with major landowners in the county to advise on management issues to benefit farmland birds. (**RSPB, FWAG, SCC, Water Companies**)
- Consider developing a county wide network of volunteer barn owl groups, to promote habitat and nest box provision in key areas, floodplains etc. (**RSPB, WMBC, SWT, CRP**)
- Seek to ensure existing nest sites and foraging areas are protected from damage by informing planning authorities of their locations. (**SWT, RSPB**)

Monitoring and Research

- Ensure bird recording in the county continues to highlight key sites. (**WMBC, RSPB, SWT**)
- Publicise the need for barn owl records and encourage the public to report sightings. (**SWT, RSPB**)
- Ensure all barn owl records collected are passed to SER. (**SWT, RSPB**)

Advisory

- Amongst the farming community increase awareness of the decline that this species has suffered, and the measures that can be taken to reverse the decline. (**SBAP Partnership, WMBC, CLA, NFU**)
- Make use of existing literature to promote conservation measures for these species. (**SBAP Partnership**)
- Promote barn owl conservation to developers by advising on the preservation and creation of nesting sites and other habitat features. (**SWT, LA**)
- Among planning authorities, raise awareness of legislation protecting barn owls and opportunities for barn owl conservation within the planning process. (**SWT**)

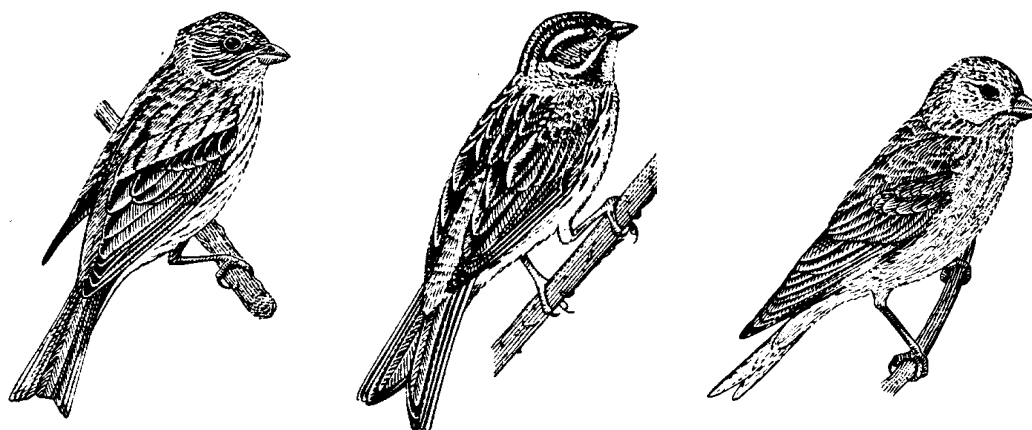
Complementary Plans

Staffordshire - All Grassland HAPs

Staffordshire Arable Field Margins HAP

Staffordshire Ancient / Diverse Hedgerows HAP

Farmland Seed-eating Birds



Including - Tree sparrow, reed bunting, corn bunting, linnet, bullfinch (UK BAP Priority Species), Yellowhammer (UK BAP Species of Conservation Concern) and House Sparrow.

Objectives

- To reverse the decline in farmland seed-eating birds.

Targets

- To see a 50% increase in numbers recorded by the Breeding Bird Survey (BBS) in the county by 2010, i.e. Staffordshire will be contributing to a regional or national index increase of these species as recorded by BBS.

Achievements To Date (November 1998 - March 2001)

- The Countryside Stewardship Scheme and the Pilot Arable Stewardship Scheme will have benefited this species and provides the best mechanism currently for reaching the targets set above.

Current Action

Protection & Policy

- All the species covered receive protection under the UK Wildlife and Countryside Act, 1981.

Management, Research & Survey

- DEFRA's Countryside Stewardship Scheme is available across the county, and includes measures which can help farmland seed-eating birds.
- DEFRA's pilot Arable Stewardship Scheme operated across parts of north and west Staffordshire. Elements of this scheme will be rolled out more widely via inclusion in mainstream Countryside Stewardship in 2002.
- Set-aside can be managed to provide rotational stubbles, or more permanent rough grass cover, and also includes the option to sow a wild bird cover mix. A new Multi-Annual Set Aside option allows for 5 year environmental management plans with an assured income for landowners.
- The RSPB is running an intervention project, targeted at known key sites for tree sparrows and corn buntings. Through the provision of seed or sacrificial crop areas, the project will aim to monitor the effectiveness of providing winter food to increase the winter survival of these populations.
- The BTO / RSPB / JNCC Breeding Bird Survey is carried out across the county.
- The RSPB has a research project based in nearby Shropshire studying the use made by farmland birds of grassland systems.

Action Plan

UK Lead Organisations: **Corn Bunting (RSPB / EN);
Linnet, Reed Bunting, Tree Sparrow, Bullfinch (RSPB).**

Policy

- Seek to ensure agri-environment schemes are appropriately targeted to include measures to benefit these species. Specifically the targeted roll out of new arable options into Countryside Stewardship in 2002 and the inclusion of a tree sparrow and corn bunting objective in the CSS county target statement. (**DEFRA**)
- Lobby for development of a pilot Dairy Stewardship Scheme, to deliver benefits for these species and other farmland wildlife into intensive dairy areas. (**Nature Conservation Organisations**)
- Seek to incorporate beneficial farmland bird management practices into Staffordshire County Council farms estate tenancy agreements. (**County Farm Estates**)

Management

- Seek to target Countryside Stewardship Scheme at areas known to be farmland bird 'hot-spots'. (**DEFRA, FWAG, CRP**)
- Seek to develop a programme of CSS promotional and training events in farmland bird 'hot-spot' areas. (**CLA, DEFRA, FWAG, Nature Conservation Organisations**)
- Seek to ensure the Countryside Stewardship Scheme is used effectively to deliver good quality habitat for seed-eating birds. (**DEFRA, FWAG**)
- Promote full use of multi-annual set aside to deliver 5 year management plans to benefit seed-eating birds in 'hot-spot' areas. (**RSPB, DEFRA, FWAG**)
- Develop links with major landowners in the county to advise on management issues to benefit seed-eating birds. (**RSPB, FWAG, SCC, Water Companies**)
- Use RSPB intervention project as an emergency measure to target over-winter feeding at key sites for tree sparrow and corn bunting. (**RSPB, WMBC**)
- Consider developing of a county wide network of feeding sites, in suitable locations, using local community and youth groups, parish councils, schools etc. (**RSPB, WMBC, SWT, SCC**)

Monitoring and Research

- Ensure adequate coverage of the Breeding Bird Survey within Staffordshire, for purposes of monitoring these species. (**RSPB, WMBC, BTO**)
- Ensure bird recording in the county continues to highlight key sites. (**WMBC, RSPB, SWT**)
- Provide DEFRA with details of hot-spot areas for effective targeting of CSS. (**RSPB, WMBC**)

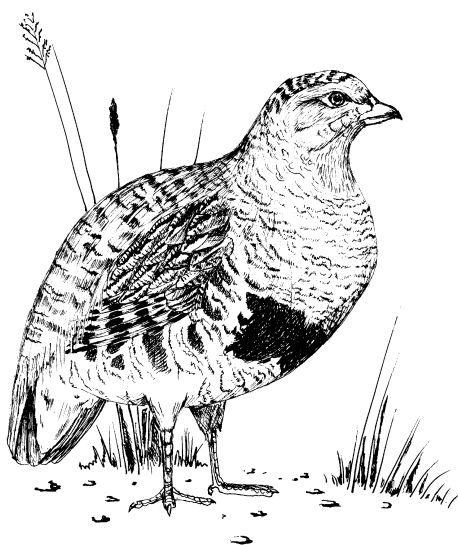
Advisory

- Increase awareness amongst the farming community of the decline that this species has suffered, and the measures that can be taken to reverse the decline. (**SBAP Partnership, WMBC, CLA, NFU**)
- Make use of existing literature to promote conservation measures for these species. (**SBAP Partnership**)

Complementary Plans

UK Bullfinch, Corn Bunting, Linnet, Reed Bunting and Corn Bunting SAPs
Staffordshire - All Grassland HAPs
Staffordshire Arable Field Margins HAP
Staffordshire Ancient / Diverse Hedgerows HAP

Grey Partridge (*Perdix perdix*)



Objectives

- To halt the decline, in both numbers and range, of the grey partridge.
- To maintain and where possible enhance the current range of this species.
- To restore a proportion of the population to its previous level.

Targets

- To halt the county decline in numbers and range by 2005.
- Increase the range and distribution of grey partridge by 20% by 2010.

Total Achievements To Date (November 1998 - March 2001)

- The Countryside Stewardship Scheme and the Pilot Arable Stewardship Scheme will have benefited this species, and provides the best mechanism currently for reaching the targets set above.

Current Action

Protection & Policy

- Grey partridge has been listed as a costed, key species in the UK Steering Group Report.
- Rodbaston College is the lead organisation for this species within Staffordshire.
- The Game Conservancy Trust is the lead organisation for this species in the UK.

Management, Survey & Research

- The DEFRA Countryside Stewardship Scheme provides grant aid for farmers. A range of options under this scheme (i.e. grass margins, hedge planting, conservation headlands) has the potential to benefit grey partridge and from 2002, this scheme will include new arable options which will benefit this species. DEFRA and FWAG actively promote this scheme throughout the county. RSPB 'Bird Aid' (intervention) project established at 3 sites in Staffordshire, looking at provision of food for farmland birds in field margins. Ongoing for 3 years.
- An SBAP Species Recording Card has been produced and circulated for the Grey Partridge.

Action Plan

UK Lead Organisation: **The Game Conservancy Trust**
Staffordshire Lead Organisation: **Rodbaston College**

Policy

- Seek to consider the requirements of grey partridge when establishing and reviewing agri-environment schemes. (**DEFRA**)
- To lobby for increased funding to support organic and mixed farm systems. (**Nature Conservation Organisations**)
- Seek to incorporate beneficial farmland bird management practices into Staffordshire County Council farms estate tenancy agreements. (**County Farm Estates**)

Land Management

- Seek to target appropriate land management measures at areas with recent or current populations of grey partridge. (**GCT, RSPB**)
- Seek to promote field margins, conservation headlands and beetle banks as valuable wildlife habitats and encourage the retention, management and planting of hedgerows. (**DEFRA, FWAG, GCT**)
- Seek to target the new arable options within the Countryside Stewardship Scheme to benefit grey partridge. (**DEFRA, FWAG, RSPB**)
- Seek to encourage targeted use of pesticides on farmland and promote the value of integrated crop management. (**DEFRA**)
- Seek to encourage the retention of over wintered stubble's, the late cutting of silage and the provision of insect rich chick feeding areas, through agri-environment schemes. (**DEFRA, FWAG**)
- Seek to encourage the use of the wild bird cover set aside option and other game cover mixes. (**GCT, BASC, DEFRA, FWAG**)
- Promote full use of the new multi-annual set aside option to deliver 5 year management plans to benefit farmland birds including grey partridge. (**RSPB, DEFRA, FWAG**)
- To encourage the small scale planting of arable crops (i.e. barley as whole field silage, or kale as a forage crop) in predominantly pastoral areas. (**GCT, BASC, RSPB**)
- To use the grey partridge example in agricultural courses, to illustrate the impact intensive farming may have on wildlife. (**Rodbaston College**)
- To promote grey partridge on game estates and shooting estates. (**Rodbaston College, GCT**)

Monitoring, Research & Survey

- To establish base line data and to monitor the numbers and range of grey partridge in the county. (**Rodbaston College, RSPB, BTO**)
- To promote volunteer participation in national monitoring schemes currently operating in the county i.e. Breeding Bird Survey. (**Rodbaston College, BTO, WMBC, RSPB**)

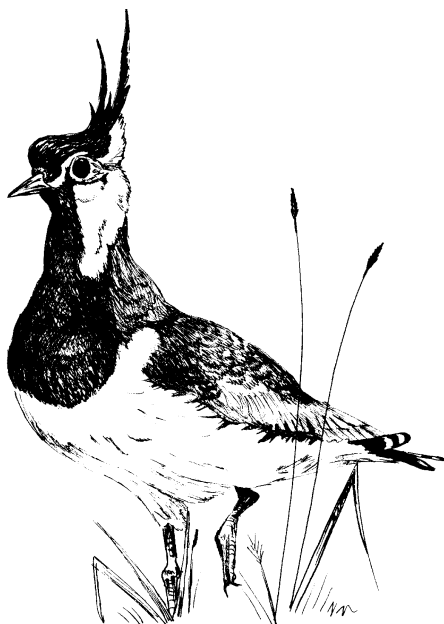
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Arable Field Margins HAP
Staffordshire Ancient / Species Rich Hedgerows HAP
Staffordshire - all unimproved grassland HAPs
Staffordshire Farmland seed-eating birds SAP

Lapwing (*Vanellus vanellus*)



Objectives

- In the short term, to maintain the present breeding population and range, as estimated by the 1998 BTO and WMBC surveys.
- In the medium term, to increase the numbers and breeding distribution of lapwing.

Targets

- To ensure that breeding populations are increasing on all reserves/ statutory designated sites, that historically, currently, or have the potential to support lapwing, by 2005.
- To increase the current breeding population by 50% by 2015.
- To restore the breeding population to at least the 1982 level, in the Sow, Penk and Trent valley stronghold, through the restoration of lowland wet grassland and sympathetic grassland management.
- To create three areas of lowland wet grassland, in blocks in excess of 20 hectares, in the Trent-Tame valley, by 2015.

Achievements To Date (November 1998 - March 2001)

- A Breeding Waders in Staffordshire report was produced by WMBC in 1998, showing that this species is still in decline.

Current Action

Protection & Policy

- West Midland Bird Club is the lead organisation for lapwing in Staffordshire.

Management, Research & Survey

- Work by Harper Adams University College in the pilot Arable Stewardship Scheme area has found that hatching success was higher on Option 1B Stewardship fields than others. Chick survival was poor – possibly due to lack of food or predation or both.
- RSPB have developed 'Waders of Wet Meadows' project, targeting the Countryside Stewardship Scheme at land suitable for wet meadow management/restoration across the county.
- The DEFRA Countryside Stewardship Scheme provides grant aid to farmers to encourage environmentally sensitive management. Under the waterside land option it is possible to restore or recreate a range of wetland habitats and damp fields that could support breeding lapwing. DEFRA and FWAG actively promote this scheme throughout the country.
- An SBAP Species Recording Card has been produced and circulated for the lapwing.

Action Plan

Staffordshire Lead Organisation: **West Midland Bird Club**

Policy

- Seek to consider the requirements of lapwing when establishing and reviewing agri-environment schemes. (**DEFRA**)
- To include specific targets for the restoration and recreation of lowland wet grassland within the LEAP process. (**EA**)
- When developing Capital Flood Defence Schemes, seek to consider the use of floodplain grassland as natural flood storage and seek to re-designate areas as 'washland'. (**EA**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- To target the Countryside Stewardship Scheme (waterside option) at areas of former wet grassland in the Sow, Penk, Trent and Blithe floodplain. (**DEFRA, FWAG, RSPB, EN**)
- Seek to promote an increase in the area of spring-sown crops, as opposed to autumn-sown crops, through new arable options within the Countryside Stewardship Scheme. (**DEFRA, FWAG, RSPB**)
- Seek to target the new Multi-Annual Set Aside option to maximum benefit for this species. (**DEFRA**)
- To ensure that Water Level Management Plans and their subsequent reviews for Doxey & Tillington Marshes, Baswich Meadows & Rawbones Meadow, Doley Common and Pasturefields Saltmarsh provide for the hydrological requirements of breeding lapwing. (**EA, Sow & Penk IDB, SWT**)
- To ensure effective agreed management, covering agricultural practices and water level management, are in place on all SSSIs which formerly, currently, or have the potential to, support breeding lapwing. (**EN**)
- To ensure that restoration of existing and future gravel pits in the Trent-Tame floodplain includes lowland wet grassland where appropriate. (**Mineral Companies, CRP**)
- To promote good practice (i.e. shallow profile to ditch sides) and seek to enhance habitat conditions for breeding lapwing during routine maintenance of drainage infrastructure. (**EA, Sow & Penk IDB**)
- Seek to encourage small scale 'rewetting' of individual fields, through the blocking of drains and grips, to encourage boggy conditions and shallow surface water for breeding lapwing. (**DEFRA, FWAG, SWT, RSPB, Landowners**)
- Wherever possible, seek to promote low stocking densities on current and potential lapwing breeding fields, between March and the end of May. (**DEFRA, FWAG, SWT, RSPB**)
- Promote full use of the new Multi-Annual Set Aside option to deliver 5 year management plans to benefit farmland birds including lapwing. (**RSPB, DEFRA, FWAG**)
- Seek to promote an increase in the area of spring, as opposed to autumn drilled crops via Countryside Stewardship. (**DEFRA, FWAG, RSPB**)
- To disseminate information on management for lapwing to advisors, drainage authorities, farmers and other land managers, through training and workshops. (**RSPB, FWAG**)
- To consider anti-predation measures (e.g. reduction in predator perches) in areas suitable for breeding lapwing. (**DEFRA, FWAG, RSPB**)

Monitoring & Research

- Re-survey of breeding waders of lowland wet grassland in 2001/2002 and 2006/2007. (**WMBC**)
- Encourage lapwing records from members of the public. (**WMBC**)
- To resurvey all census squares covered in the 1998 BTO survey of breeding lapwing every five years. (**WMBC, BTO, RSPB**)
- To monitor lapwing population changes within the Arable Stewardship pilot area between 1999 and 2003. (**DEFRA**)

Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

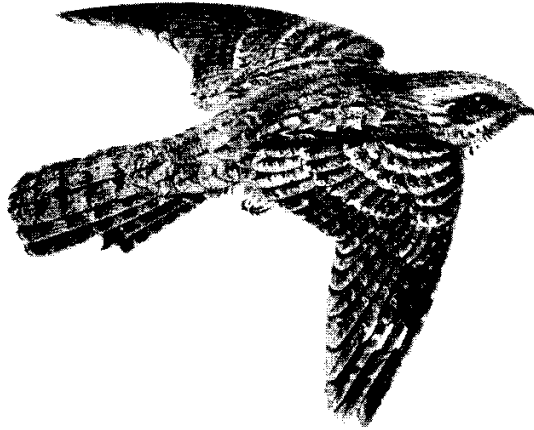
Complementary Plans

Staffordshire Lowland Wet Grassland HAP
Staffordshire Snipe SAP

Staffordshire - all other unimproved grassland HAPs
Staffordshire Skylark SAP



Nightjar (*Caprimulgus europaeus*)



Objectives

- In the short term, to increase the present breeding population on Cannock Chase.
- In the medium term, to maintain the increase on Cannock Chase and establish a breeding population on at least one other heathland site apart from the Chase where the birds usually bred.

Targets

- To increase the breeding population on Cannock Chase to 50 pairs by 2005 and 70 pairs by 2015.
- To establish a viable breeding population at a heathland site other than Cannock Chase (e.g. Kinver Edge, Hednesford Hills, Gentleshaw Common) by 2015.

Total Achievements To Date (November 1998 - March 2001)

- Nightjars have been heard churring at one further site within the County in 2000.
- The West Midland Bird Club report on the population of nightjar for Cannock Chase has shown that their numbers are on the increase and have now reached over 55 pairs.

Current Action

Protection & Policy

- Nightjar has been listed as a costed, key species in the UK Steering Group Report.
- West Midland Bird Club is the lead organisation for nightjar in Staffordshire.
- RSPB is the lead organisation for nightjar in the UK.

Management, Research & Survey

- Nightjar nesting scrapes have been installed on Cannock Chase but have not yet been used by the birds.
- Ongoing management of habitat adjacent to Cannock Chase for nightjars.

Action Plan

UK Lead Organisation: **Royal Society for the Protection of Birds**
Staffordshire Lead Organisation: **West Midland Bird Club**

Policy

- Seek to ensure all appropriate Forest Design Plans take into account the habitat requirements of nightjars and that specific targets to enhance nightjar populations are included within the Plan for Cannock Chase. (**FE**)
- Take full account of nightjar requirements in considering felling and restocking proposals. (**FE**)
- Maintain and enhance support for Heathland Partnership. (**SWMHP**)
- Maintain profile of this species in all management plans affecting Cannock Chase area, ensuring that these plans address issues of habitat management and disturbance. (**SCC, FE, LAs**)

Land Management

- Restore and recreate 200 hectares of lowland heathland, in blocks in excess of ten hectares, by 2005. (**SWMHP, FE, Mineral Companies, FoM**)
- At all heathland sites, halt the decline in habitat quality by introducing appropriate management for nightjars by 2005. (**SWMHP**)
- Reinstate grazing on heathland, in order to maintain a sustainable vegetation structure and increase the available invertebrate prey through dunging. (**SWMHP**)
- Through Forest Management Plans, seek to increase the area and distribution of both clear fell and young forestry plantations under ten years of age. Felling programmes should ensure a succession of recently felled / restocked areas are available for colonisation once other sites become unsuitable. (**FE**)
- Encourage management of young plantations to benefit nightjars. Shallow, inter-row ploughing of plantations to maintain open and bare ground between the crop can increase the suitability of plantations and extend the period over which they may be used for nesting. (**FE**)
- Within coniferous plantations encourage the inclusion of unstacked bays (20 - 50m deep) on existing ride sides, to enhance the provision of suitable nest sites. (**FE**)
- Seek to promote the Countryside Stewardship Scheme (heathland recreation / restoration option) within areas of former or degraded heathland. (**DEFRA, FWAG**)

Monitoring & Research

- Repeat the 1997 WMBC survey of nightjars on Cannock Chase in 2002 and 2007. (**WMBC, BTO**)
- Carry out a complete census of nightjars throughout Staffordshire in 2002 and 2007. (**WMBC**)
- Encourage nightjar records from members of the public. (**WMBC**)

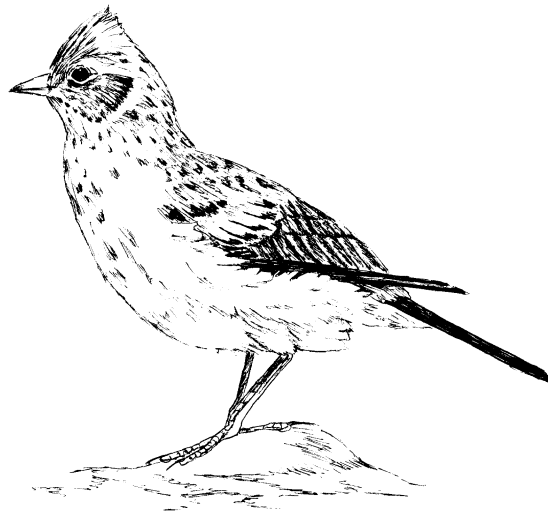
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Disseminate information on management for nightjars to advisors, FE, LA land managers and private landowners. (**RSPB, WMBC**)

Complementary Plans

UK Nightjar SAP
Staffordshire Lowland Heathland HAP
Staffordshire Semi-natural Broadleaved Woodland HAP
Staffordshire Woodlark SAP

Skylark (*Alauda arvensis*)



Objectives

- In the short term, to halt the decline in breeding numbers on lowland farmland and other habitats where found to be declining.
- In the medium term, to enhance the breeding population of skylark in all habitats in which the species occurs.

Targets

- Halt the county decline by 2005.
- Seek to increase the current population by 20% by 2015.

Achievements To Date (November 1998 - March 2001)

- Several monitoring programmes are set up and ongoing for this species and advice has been given by RSPB and WMBC.

Current Action

Protection & Policy

- The skylark is protected under the EC Birds Directive and the Wildlife & Countryside Act 1981.
- Skylark has been listed as a costed, key species in the UK Steering Group Report.
- West Midland Bird Club is the lead organisation for skylark in Staffordshire.
- RSPB is the lead organisation for skylark in the UK.

Management, Research & Survey

- The DEFRA Countryside Stewardship Scheme provides grant aid to farmers to encourage environmentally sensitive management and from 2002, this scheme will include new arable options which will benefit this species. A range of options under this scheme has the potential to provide nest sites and increase food supplies for skylarks. DEFRA and FWAG actively promote this scheme throughout the county.
- An SBAP Species Recording Card has been produced and circulated for the skylark.

Action Plan

UK Lead Organisation: Royal Society for the Protection of Birds
Staffordshire Lead Organisation: West Midland Bird Club

Policy

- Seek to consider the requirements of the skylark when establishing and reviewing agri-environment schemes. (*DEFRA*)
- Lobby for increased funding to support organic and mixed farm systems. (*Nature Conservation Organisations*)
- Lobby for changes in agri-environment schemes for the retention of stubble fields for as long as possible over winter, to provide a source of seeds. (*Nature Conservation Organisations*)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (*SBI Grading Committee*)
- Seek to incorporate beneficial farmland bird management practices into Staffordshire County Council farms estate tenancy agreements. (*County Farm Estates*)
- Lobby for development of a pilot Dairy Stewardship Scheme, to deliver benefits for this species and other farmland wildlife into intensive dairy areas. (*Nature Conservation Organisations*)

Land Management

- Encourage sympathetic management of rotational set aside, with regard to reducing the harmful effects of cutting and wide-spectrum pesticide use. (*RSPB*)
- Promote an increase in both the diversity of arable crops sown and the area under spring cereals, especially barley. (*RSPB, NFU*)
- Encourage the establishment of grass margins, beetle banks and ley grassland as both nesting sites and insect rich feeding areas. (*GCT, RSPB*)
- Seek to target the use of the new arable options within the Countryside Stewardship Scheme to benefit skylark. (*DEFRA, FWAG, RSPB*)
- Promote full use of the new multi-annual set aside option to deliver 5 year management plans to benefit farmland birds including skylark. (*RSPB, DEFRA, FWAG*)
- Seek to encourage a more targeted and cautious use of pesticides on farmland, as opposed to prophylactic treatment of crops. (*DEFRA*)
- Encourage the establishment demonstration farms to highlight beneficial management practices for skylark. (*RSPB, SWT*)

Monitoring & Research

- Establish base line data on the numbers and distribution of skylarks in relation to different habitat and crop types across the county. (*WMBC*)
- Use BTO data (Common Bird Census etc.) to monitor skylark populations. (*WMBC, BTO*)
- Promote volunteer participation in national monitoring schemes currently operating in the county i.e. Breeding Bird Survey. (*BTO, WMBC, RSPB*)
- Target surveys on known skylark concentrations in 2003. (*WMBC*)
- Encourage skylark records from members of the public. (*WMBC, SWT*)

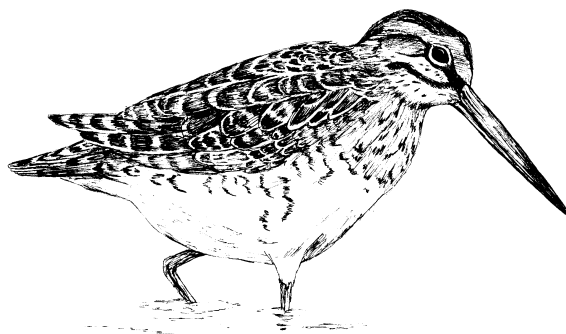
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (*SBAP Partnership*) Disseminate information on skylark conservation to farmers and other land managers. (*DEFRA, RSPB*)

Complementary Plans

UK Skylark SAP
Staffordshire Arable field margins HAP
Staffordshire All unimproved grassland HAPs
Staffordshire Grey partridge SAP
Staffordshire Farmland seed-eating birds SAP

Snipe (*Gallinago gallinago*)



Objectives

- In the short term, to maintain both the present breeding population (c. forty pairs) and the number of sites (10-15) at which breeding occurs.
- In the medium term, to increase the numbers and distribution of breeding snipe.

Targets

- Ensure that breeding populations are increasing on all reserves / statutory designated sites, that historically, currently, or have the potential to support snipe by 2005.
- To double the current breeding population to eighty pairs by 2015.
- To establish viable breeding populations at ten sites, outside of the existing reserve and statutory designated site network, by 2015.
- Restore three lowland wet grassland sites capable of supporting breeding snipe, within the Sow and Penk valley, in order to link the existing populations on SSSIs, by 2005.
- Create three areas of lowland wet grassland, in blocks in excess of 20 hectares, in the Trent-Tame valley, by 2015.

Achievements To Date (November 1998 - March 2001)

- The Breeding Waders in Staffordshire report was produced by WMBC in 1998, showing that this species was still in decline.

Current Action

Protection & Policy

- The snipe is listed under annex II of the Bonn Convention.
- West Midland Bird Club is the lead organisation for snipe in Staffordshire

Management, Research & Survey

- RSPB have developed 'Waders of Wet Meadows' project, targeting Countryside Stewardship at land suitable for wet meadow management/restoration across the county.
- The DEFRA Countryside Stewardship Scheme provides grant aid to farmers to encourage environmentally sensitive management. Under the waterside land option it is possible to restore or recreate a range of wetland habitats and damp fields that could support breeding lapwing. DEFRA and FWAG actively promote this scheme throughout the country.
- An SBAP Species Recording Card has been produced and circulated for the snipe.

Action Plan

Staffordshire Lead Organisation: **West Midland Bird Club**

Policy

- Seek to consider the requirements of snipe when establishing and reviewing agri-environment schemes. (**DEFRA**)
- Include specific targets for the restoration and recreation of lowland wet grassland within the LEAP process. (**EA**)
- When developing Capital Flood Defence Schemes, consider the use of floodplain grassland as natural flood storage and seek to re-designate areas as 'washland'. (**EA**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Seek to target Countryside Stewardship Scheme (waterside option) at areas of former wet grassland in the Sow, Penk, Trent and Blithe floodplain. (**DEFRA, FWAG, RSPB, EN**)
- Ensure that Water Level Management Plans for Doxey and Tillington Marshes, Baswich Meadows and Rawbones Meadow, Doley Common and Pasturefields Saltmarsh provide for the hydrological requirements of breeding snipe. (**EA, Sow & Penk IDB, SWT**)
- Ensure effective management agreements covering agricultural practices and water level management are in place on all SSSIs which formerly, currently, or have the potential to, support breeding snipe. (**EN**)
- Seek to restore existing and future gravel pits in the Trent-Tame floodplain to lowland wet grassland. (**Mineral companies, CRP**)
- Promote good practice (i.e. shallow profile to ditch sides) and seek to enhance habitat conditions for breeding snipe during routine maintenance of drainage infrastructure. (**EA, Sow & Penk IDB**)
- Seek to encourage small scale 'rewetting' of individual fields, through the blocking of drains and grips, to encourage boggy conditions and shallow surface water for breeding snipe. (**DEFRA, FWAG, RSPB, landowners**)
- Examine the feasibility of constructing sluice systems on potential lowland grassland sites. (**EA**)

Monitoring and Research

- Re-survey of breeding waders of lowland wet grassland in 2001/2002 and 2006/2007. (**WMBC**)
- Encourage snipe records from members of the public. (**WMBC**)
- Identify candidate hydrological units for restoration of lowland wet grassland and carry out feasibility studies. (**EA, EN, RSPB**)
- Monitor water levels at all former and current snipe breeding sites. (**EA, Sow & Penk IDB**)
- Encourage snipe records from members of the public. (**WMBC, SWT**)

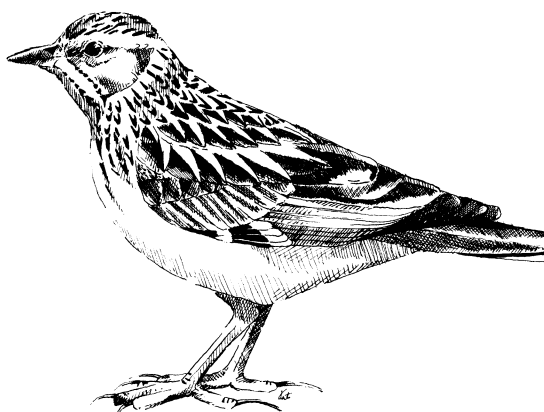
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Lowland Wet Grassland HAP
Staffordshire Lowland Raised Bog HAP
Staffordshire Inland Saltmarsh HAP
Staffordshire Lapwing SAP

Woodlark (*Lullula arborea*)



Objectives

- In the short term, to increase the present breeding population on Cannock Chase.
- In the medium term, to maintain the rate of increase on Cannock Chase and establish breeding populations on at least two other sites in the county.

Targets

- To increase the breeding population on Cannock Chase to twenty pairs by 2005 and 40 pairs by 2015.
- To establish a viable breeding population at a heathland site other than Cannock Chase, such as in the former Enville (Kinver) stronghold by 2015.
- To establish a viable breeding population on a restored open cast coal site (heath / acidic grass mix) in the Burntwood (Cannock) area by 2015.

Achievements To Date (November 1998 - March 2001)

- The last survey for woodlarks in 2000 suggested that there were 7-8 breeding pairs on Cannock Chase. This suggests that the numbers of woodlark on Cannock Chase are increasing.

Current Action

Protection & Policy

- The woodlark is fully protected at all times under Schedule 1 of the Wildlife and Countryside Act 1981.
- Most large remaining heathland sites are designated as SSSIs, with a third of the current population breeding within a heathland SSSI.
- West Midland Bird Club is the lead organisation for woodlark in Staffordshire.

Management, Research & Survey

- Research has been carried out by the RSPB in conjunction with the Forestry Authority, to determine the importance of restocked conifer plantations for woodlarks and the selection of foraging habitats in pine plantations. This enables Forest Design Plans to be modified to incorporate woodlark requirements.
- The Heathlands Partnership, a consortium of local authorities, statutory bodies and conservation NGOs, employs a Heathland Project officer. The Partnership promotes the management and restoration of lowland heathland throughout the county.
- The DEFRA Countryside Stewardship Scheme provides grant aid to landowners for the restoration and recreation of lowland heath. The scheme is actively promoted by DEFRA and FWAG throughout the county.
- Two months work of habitat creation to create scrapes in appropriate areas of Cannock Chase.

Action Plan

Staffordshire Lead Organisation: **West Midland Bird Club**

Policy

- Ensure all appropriate Forest Design Plans take into account the habitat requirements of woodlarks and specific targets for the enhancement of the existing woodlark population is included within the Plan for Cannock Chase. **(FE)**
- Maintain and enhance support for countywide heathland projects through the Heathland Partnership. **(SWMHP)**
- Take full account of woodlark requirements in considering felling and restocking proposals. **(FE)**

Land Management

- Restore and recreate 200 hectares of lowland heathland, in blocks in excess of ten hectares, by 2005. **(SWMHP, FE, Mineral Companies, FoM)**
- On all appropriate heathland sites, halt the decline in habitat quality by introducing appropriate management for woodlarks by 2005. **(SWMHP)**
- Reinstate grazing on heathland, in order to maintain a sustainable vegetation structure and increase the available invertebrate prey through dunging. **(SWMHP)**
- Through Forest Management Plans, seek to increase the area and distribution of both clear fell and young forestry plantations under ten years of age. Felling programmes should ensure a succession of recently felled / restocked areas are available for colonisation once other sites become unsuitable. **(FE)**
- Encourage management of young plantations to benefit woodlarks. Shallow, inter-row ploughing of plantations to maintain open and bare ground between the crop can increase the suitability of plantations and extend the period over which they may be used for nesting. **(FE)**
- Seek to promote the Countryside Stewardship Scheme (heathland recreation / restoration option) within areas of former or degraded heathland. **(DEFRA, FWAG)**
- Promote the use of set-aside and the Countryside Stewardship Scheme to deliver winter stubbles in the vicinity of known breeding areas. **(DEFRA, FWAG, RSPB)**
- Consider the most appropriate replanting techniques to encourage woodlarks. De-stumping and ploughing when planting create more suitable conditions than planting through harvested brush. **(FE)**
- Seek to restore heathland at appropriate mineral sites. Ensure all operations in the Cannock area are targeted as priorities. **(Mineral Companies)**

Monitoring

- Repeat the 1997 WMBC survey of woodlark on Cannock Chase in 2002 and 2007. **(WMBC, BTO)**
- Carry out a complete census of woodlarks throughout Staffordshire in 2002 and 2007. **(WMBC)**
- Encourage woodlark records from members of the public. **(WMBC)**

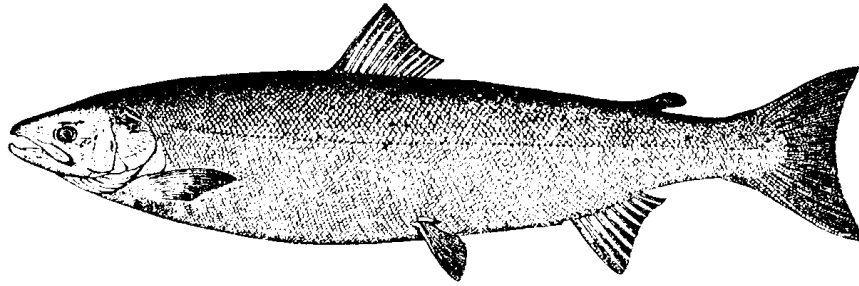
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. **(SBAP Partnership)**
- Disseminate information on management for woodlarks to advisors, FE, LA land managers and private landowners. **(RSPB, WMBC)**

Complementary Plans

Staffordshire Lowland Heathland HAP
Staffordshire Nightjar SAP

Atlantic Salmon (*Salmo salar*)



Objectives

- To reintroduce a self-sustainable population of salmon appropriate to the catchment.
- To ensure continued monitoring of the species.
- To safeguard the quality and quantity of water sufficient for the fish.
- To maintain and enhance quality fish habitat, to improve damaged fish habitats and remove barriers which prevent the free passage of fish.

Targets

- To fully restore Atlantic salmon to the River Trent and River Dove by 2028.

Achievements To Date (November 1998 - March 2001)

- The Environment Agency has been releasing salmon fry into the River Dove since 1999.
- A Trent Salmon Trust has been established to seek funds to implement the actions.

Current Action

Protection & Policy

- Atlantic Salmon are protected under the Salmon and Freshwater Fisheries Act 1975, supplemented by the Salmon Act 1986.
- The species is listed under the EC Habitats Directive Annex IIa.
- The Environment Agency is the lead organisation for Salmon in Staffordshire.

Management, Research & Survey

- The EA continues to safeguard migration routes between the river and the sea. EA maintain a monitoring programme of fish stocks and has developed fisheries strategies for river reaches in Staffordshire and across the country.

Action Plan

Staffordshire Lead Organisation: **Environment Agency**

Policy

- To raise initial stocking costs of 30k. (**EA**)
- To stock fry and parr into the River Dove below Rocester weir annually for five years, until a significant number of adult salmon return to spawn. (**EA**)
- To provide advice and publicise the conservation of the species and the correct management. (**EA**)
- To ensure that appropriate Staffordshire LEAPs (i.e. the Dove at this stage) include specific measures for the reintroduction of salmon. (**EA**)

Land Management

- To continue to consider the requirements of the salmon when developing Capital Flood Defence Schemes. (**EA**)

Monitoring and Research

- To research the effects of weirs on the passage of migrating fish. (**EA**)
- To establish where fish passes should be provided to enable the free passage of fish. (**EA**)
- To further research the possibility of fitting a fish pass to Tutbury Weir on the River Dove, to open up a twenty-seven mile stretch for spawning, up to the next weir at Rocester. (**EA**)
- To continue research into maintaining a genetic diversity in stocked fish similar to that found in the wild. (**EA**)

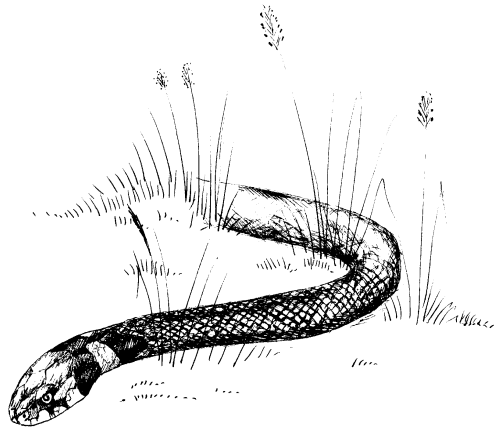
Advisory

- To raise awareness amongst fishermen, farmers and flood defence engineers on the conservation needs of the salmon. (**EA**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Rivers and Streams HAP

Grass Snake (*Natrix natrix*)



Objectives

- To maintain the current existing populations within Staffordshire.
- To increase the population within Staffordshire at sites where they are known to exist.

Targets

- To ensure that there is no decline in the range of the grass snake in Staffordshire by 2010.
- To maintain all current known breeding populations from 2001 onwards.
- To increase the population on all sites which are known support strong populations of grass snakes by 2010.

Total Achievements To Date (November 1998 - March 2001)

- An initial data search has been undertaken (2000) and a distribution map produced to give baseline data for this species.

Current Action

Protection & Policy

- Under Schedule 5 of the Wildlife and Countryside Act 1981, the grass snake is protected from intentional killing or injury, and from sale of any live or dead specimens.
- The Berne Convention lists the grass snake under Appendix III.
- Staffordshire Wildlife Trust is the lead organisation for the grass snake in Staffordshire.

Management, Research & Survey

- The National Common Reptile Survey and the new Amphibian and Reptile Recording Scheme provide the background information on distribution, habitat and status required for conservation action.
- A nationwide campaign undertaken in 1995 by Herpetofauna Conservation International Ltd. aimed to encourage sympathetic management, promote environmental education and investigate local status.
- An SBAP Species Recording Card has been produced and circulated for the grass snake.

Action Plan

Staffordshire Lead Organisation: **Staffordshire Wildlife Trust**

Policy

- Include specific targets for the restoration and recreation of lowland wet grassland, wet woodland, pools and rivers within the LEAP process. (**EA**)
- When developing Capital Flood Defence Schemes, consider the use of flood plain grassland as natural flood storage and seek to re-designate as 'washland'. (**EA**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Seek to encourage landowners to appropriately manage sites important for grass snakes. (**SWT**)
- Ensure effective management agreements, covering agricultural practices and water level management, are in place on all SSSIs which formerly, currently, or have the potential to, support grass snakes. (**EN**)
- Seek to restore existing and future gravel pits in the Trent-Tame floodplain to wet grassland, ponds and other habitats suitable for grass snakes. (**Mineral Companies, CRP**)
- Promote good practice (i.e. retention of vegetation piles and bare ground basking sites) and seek to enhance habitat conditions for grass snakes during routine maintenance of drainage infrastructure. (**EA, Sow & Penk IDB**)
- Carry out management work for grass snakes in gardens and landholdings within grass snake strongholds e.g. Staffordshire Moorlands, (**Landowners**)

Monitoring and Research

- Monitor the grass snake population and range in Staffordshire. (**SER, SWT**)
- Seek to encourage further research on precise habitat requirements of grass snakes. (**Universities**)
- Monitoring of grass snake populations at key sites to assess the effects of management work. (**SWT**)

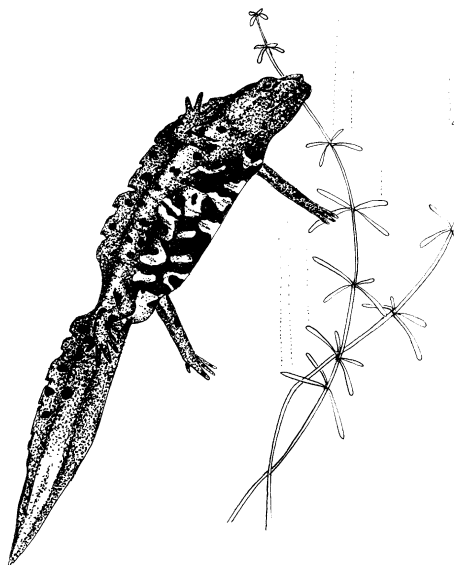
Advisory

- Advise landowners on appropriate ways to manage suitable sites for grass snakes. (**SWT**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Lowland Wet Grassland HAP
Staffordshire Wet Woodland HAP
Staffordshire Lakes, Ponds and Canals HAP
Staffordshire Streams and Rivers HAP

Great Crested Newt (*Triturus cristatus*)



Objectives

- Maintain the current range, distribution and viability of existing great crested newt populations.

Targets

- Restore populations to 15 unoccupied sites by the year 2003.
- Ensure that there is no net loss in range and distribution of great crested newts from 2001 onwards.
- Enhance 30 sites known to have populations of great crested newts by appropriate management by 2010.

Total Achievements To Date (November 1998 - March 2001)

- An initial data search was undertaken in 2000 and a distribution map produced showing that the great crested newt is widely distributed throughout the County.
- One population has been translocated to a site in South Staffordshire where five ponds are being created to ensure its continued existence.

Current Action

Protection & Policy

- CCW, EN and SNH support a post within the NGOs to develop further local Amphibian and Reptile Groups, and support surveys and conservation initiatives.
- The great crested newt is listed on Annexes 11 and IV of the EC Habitats Directive and Appendix II of the Berne 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.
- Great crested newt has been listed as a costed, key species in the UK Steering Group Report.
- The Herpetological Conservation Trust, Froglife and the British Herpetological Society are the lead organisations for this species in the UK.

Management, Research & Survey

- Stoke City Council have recently completed a survey of ponds and great crested newts within the city.
- Newt hibernacula have been created or improved at two sites in the County.
- Survey work funded by the Environment Agency looked at 32 ponds in Cannock. Great crested newts were found to be present in five of them.
- An SBAP Species Recording Card has been produced and circulated for the great crested newt.

Action Plan

UK Lead Organisations: **Herpetological Conservation Trust,
Froglife & British Herpetological Society**

Policy

- Ensure that Structure and Local Plans, and other strategy documents (e.g. LEAPs) contain appropriate policies to protect this species and the habitat it requires. (**LAs, EA**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to target the Countryside Stewardship Schemes (waterside option) at areas known to contain great crested newt populations. (**DEFRA, FWAG**)
- Protect all known sites from inappropriate development and other potentially damaging activities. (**LAs, EN**)
- Where appropriate, seek water quality habitat improvements in those water bodies supporting this species. (**LAs, EA**)

Monitoring and Research

- Continue to record great crested newts, ensuring that the database is up-to-date. (**SER**)

Advisory

- Disseminate information on management for great crested newts to advisors, farmers and other land managers through training and workshops. (**EN**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Ensure that all the relevant organisations and agencies are aware of all known populations. (**EN, SWT**)

Complementary Plans

UK Great Crested Newt SAP
Staffordshire Lakes, Ponds and Canals HAP

Natterjack Toad (*Bufo calamita*)



Objectives

- In the short term, maintain the existing population on its current site.
- In the long term, consider the possibilities of increasing the number of colonies within the county.

Targets

- Increase the existing natterjack toad population to a sustainable level by appropriate ongoing management and site safeguard by 2005.
- If appropriate, establish one further colony of natterjack toad in a suitable site by 2010.

Achievements To Date (November 1998 - March 2001)

- Natterjacks have spawned twice in 1999 but predation of tadpoles probably high. *Crassula helmsii* is invading the ponds making them unsuitable for the natterjack toad. Some of the ponds are also drying out.

Current Action

Protection & Policy

- The species is protected under the Wildlife & Countryside Act 1981
- The species is listed in Appendix II of the Berne Convention and Annex IVa. of the EC Habitats Directive. It is protected by Schedule 2 of the Conservation (Natural habitats etc.) Regulations 1994, and Schedule 5 of the Wildlife & Countryside Act 1981.
- Natterjack toad has been listed as a costed, key species in the UK Steering Group Report.
- The Herpetological Conservation Trust is the lead organisation for this species in the UK.

Management, Research & Survey

- A register of all sites in the UK is maintained by the British Herpetological Society (BHS).
- The Cannock Chase site continues to be actively managed, with advice / assistance from the HCT and BHS. The population is being monitored annually.
- Habitat creation on Cannock Chase including two new ponds and four scrapes along with scrub clearance.
- Scrub clearance has been undertaken as well as two breeding ponds and four scrapes created within the known breeding area.

Action Plan

UK Lead Organisation: Herpetological Conservation Trust
Staffordshire Lead Organisation: Staffordshire County Council

Policy

- Ensure that natterjack toad requirements are taken into account on Cannock Chase. (**SCC**)

Species & Land Management

- Continue existing site management, amended as necessary by future advice or experience. (**SCC**)
- Consider further future introductions from successful breeding populations elsewhere, in order to increase the genetic diversity of the Staffordshire population. (**SCC**)
- Maintain the existing breeding areas within the quarry as a conservation zone, with no public access. (**SCC**)

Monitoring and Research

- Continue monitoring of population, and co-operate in relation to future research into the species and its requirements. (**SCC**)
- Investigate the suitability of further sites for the introduction of natterjack toad by 2005. (**SCC**)

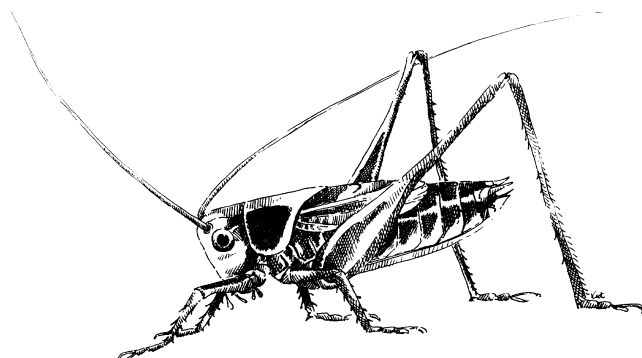
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary plans

Staffordshire Lowland Heathland HAP
Staffordshire Ponds, Lakes and Canals HAP

Bog Bush-cricket (*Metrioptera brachyptera*)



Objectives

- To maintain and enhance the existing populations within Staffordshire.
- To create new suitable areas at sites known to contain the species to facilitate colony expansion.

Targets

- To maintain the current population of bog bush-cricket at the two sites in Staffordshire by appropriate management by 2010.

Achievements To Date (November 1998 - March 2001)

- Staffordshire County Council have carried out sensitive management for this species at Highgate Common.

Current Action

Protection & Policy

- Bog bush-cricket has been recorded from the Cannock Chase SSSI which receives statutory protection; the other on which it is known to exist has been classed as an SBI.
- Staffordshire County Council is the lead organisation for this species in Staffordshire.

Management, Research & Survey

- The management on Highgate Common is currently under review and this includes proposals to actively manage part of the site for bog bush-crickets.

Action Plan

Staffordshire Lead organisation: **Staffordshire County Council**

Policy

- Promote the National Lowland Heathland Programme. (**SWMHP**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Actively manage suitable areas of habitat for bog bush-cricket on both Cannock Chase and Highgate Common. (**SCC**)
- Determine other suitable areas adjacent to known colonies that can be enhanced directly for this species through habitat restoration. (**SCC**)

Monitoring and Research

- Determine the exact habitat requirements of this species within the County. (**SCC, SWT**)
- Ensure that all known sites are on the Invertebrate Sites Register. (**EN**)
- Monitor all known bog bush-cricket populations on a regular (at least bi-annual) basis. (**SCC**)
- Consider the re-introduction of bog bush-crickets into Highgate from the Cannock Chase populations. (**SCC**)

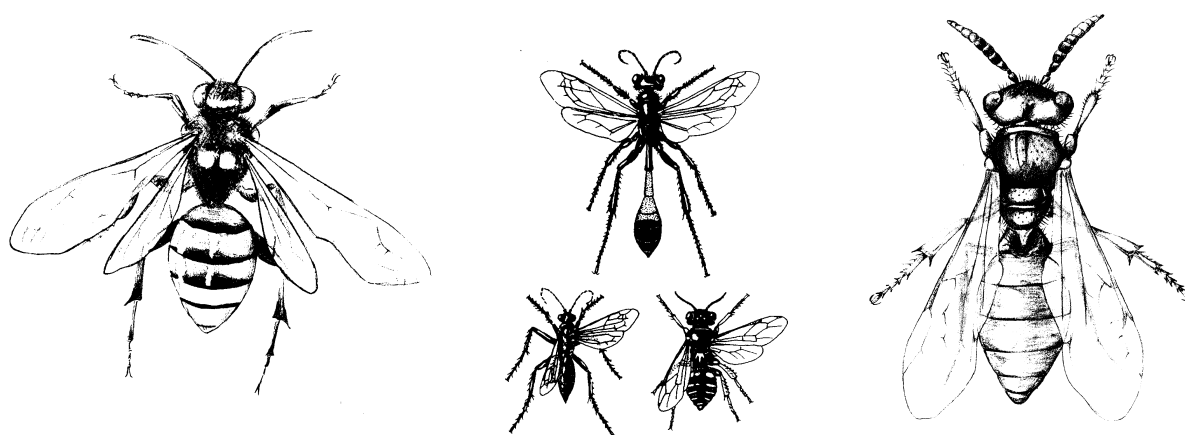
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Lowland Heathland HAP
Staffordshire Lowland Acid Grassland HAP
Staffordshire Lowland Wet Grassland HAP

Ground Nesting Solitary Bees & Wasps



Objectives

- Maintain all sites that support important populations of ground nesting solitary bees and wasps in a favourable condition.
- Where appropriate, Increase current important populations of solitary bees and wasps through site enhancement.

Targets

- Identify ten 'key sites' and implement suitable habitat enhancement e.g. creation of scrapes and faces, by 2010.
- Maintain the populations on all known locally and nationally important sites for ground nesting solitary bees and wasps from 2001 onwards.

Achievements To Date (November 1998 - March 2001)

- A total of eight sites have currently been managed for their solitary bees and wasps.
- Ongoing survey work throughout the County identifies important sites for these species.
- A provisional checklist is expected early in 2002.

Current Action

Protection

- A number of sites of interest for solitary bees and wasps have been identified on some Staffordshire heathlands. These are classified as SSSIs or SBIs and receive some protection.
- Invertebrate Criteria have been worked out to include these species into the Sites of Biological Importance (SBI) series.
- JCB is the Champion for Solitary Bees and Wasps in Staffordshire and has provided both survey funding and site management work for these species.

Management

- Site management work has been carried out by JCB (on various sites), Cannock Chase Council and Staffordshire Wildlife Trust.
- The Staffordshire and West Midlands Heathlands Project has carried out a training day specifically for the management of sites for invertebrates.
- British Entomological Natural History Society has provided a grant for survey and report work.

Action Plan

Staffordshire Lead Organisation: **Staffordshire Wildlife Trust**

Policy

- Ensure that important bare ground sites are safeguarded during reclamation, improvement and development schemes. (**SWT**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Seek to ensure that all 'key sites' for solitary bees and wasps have appropriate ongoing management. (**SWMHP and other Landowners**)

Monitoring and Research

- Produce a County Checklist of Aculeate Hymenoptera by 2002. (**SWT**)
- Survey Staffordshire for solitary bees and wasps to define their status and distribution with particular emphasis on key sites. (**SWT**)
- Monitor 'key sites' within the County by assessing the amount and quality of bare ground and associated forage habitat every five years. (**SWT**)
- Add all known sites onto the Invertebrate Sites Register. (**SER, EN**)

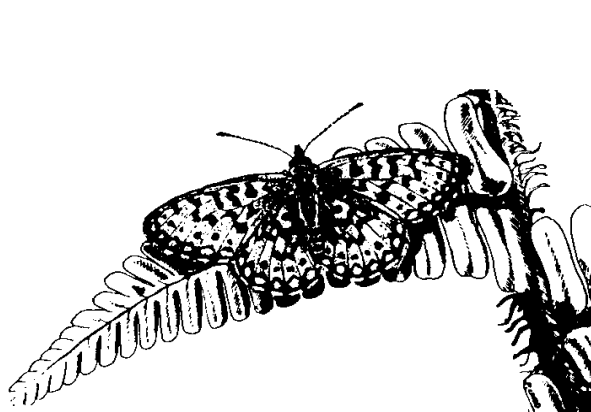
Advisory

- Notify organisations which may have a potential impact on these species e.g. sand quarrying companies and other landowners. (**SWT**)
- Ensure policy makers are aware of the need to retain areas of suitable bare ground. (**SWT**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SWT**)

Complementary Plans

Staffordshire Lowland Heathland HAP
Staffordshire - All Grassland HAPs

Small Pearl-bordered Fritillary (*Boloria selene*)



Objectives

- In the short term, safeguard all existing colonies of small pearl-bordered fritillaries.
- In the medium term, if feasible, increase the number of populations of small pearl-bordered fritillaries within the county.

Targets

- Maintain and, where feasible, increase the population numbers of small pearl-bordered fritillaries at their current sites by suitable habitat management by 2005.

Achievements To Date (November 1998 - March 2001)

- The West Midlands Branch of Butterfly Conservation is the Lead Organisation for this species.
- Three sites are known for this species within the County.
- Butterfly Conservation monitored the population on Cannock Chase in 1999.

Current Action

Protection & Policy

- The small pearl-bordered fritillary is listed as a protected species under schedule 5 of the Wildlife & Countryside Act (1981) - for sale only.
- The two colonies are present within notified SSSIs and receive protection under the Wildlife & Countryside Act (1981).
- Butterfly Conservation is the lead organisation for small pearl-bordered fritillary in Staffordshire.

Management, Research & Survey

- The three current sites where the butterfly is present are all currently managed for their wildlife interest.

Action Plan

Regional Lead Organisation: **Butterfly Conservation**

Policy

- Promote the 'Saving Cannock Chase' Project: the location of probably the largest populations of this species. (**SCC, SWMHP**)

Land Management

- Encourage favourable management in areas of Cannock Chase next to established colonies to maintain a network of suitable habitat for re-colonisation. (**SCC, EN**)
- Seek to manage all current small pearl-bordered fritillary colonies to maintain and enhance the habitat at an optimum level for this species. (**SCC, Landowners, EN**)

Monitoring & Research

- Monitor all current populations of small pearl-bordered fritillary within the county. (**BC**)
- Carry out updated surveys throughout the county to establish all current known colonies and suitable areas for re-introductions. (**BC, SWT**)
- Seek to carry out research on the habitat requirements of this species in Staffordshire. (**BC, SWT**)

Advisory

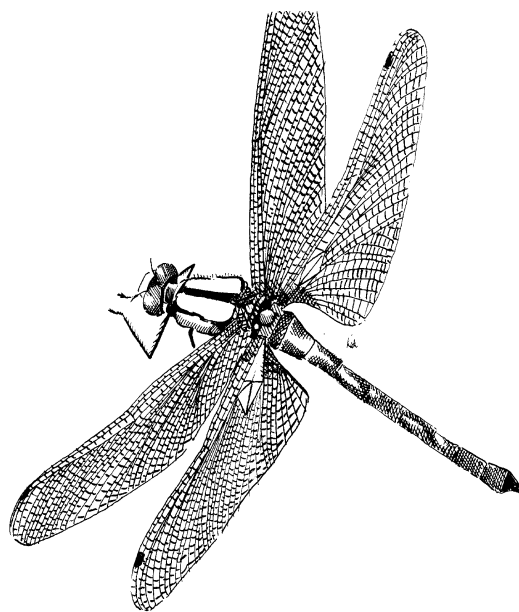
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Lowland Wet Grassland HAP

Staffordshire Semi-natural Broadleaved Woodland HAP

White-faced Darter (*Leucorrhinia dubia*)



Objectives

- To maintain and increase the present population at Chartley Moss.

Targets

- Maintain the existing white-faced darter by appropriate ongoing management and site safeguard.
- Increase the population at Chartley Moss by creating further breeding sites by 2005.
- If appropriate, establish one further colony of white-faced darter in a suitable site by 2010.

Achievements To Date (November 1998 - March 2001)

- English Nature has been actively managing Chartley Moss and has dammed drainage ditches to create more breeding pools.

Current Action

Protection & Policy

- The white-faced darter is listed as a protected species under schedule 5 of the Wildlife & Countryside Act (1981) - for sale only.
- The current colony is present within a notified SSSI and receives protection under the Wildlife & Countryside Act (1981).
- Butterfly Conservation has drafted a species action plan for the UK.

Management, Research & Survey

- Active management by English Nature to increase the population is on-going.

Action Plan

Policy

None

Land Management

- To prevent further reduction of the free-water surface of Shooters Pool by rotational removal of *Sphagnum* from the edges. (**EN**)
- To limit the number of people visiting the Moss to view the white-faced darter. (**EN**)

Monitoring & Research

- To undertake annual monitoring of population size and habitat use. (**EN, BDS**)
- Encourage research on the habitat requirements of this species in Staffordshire. (**EN, BDS**)

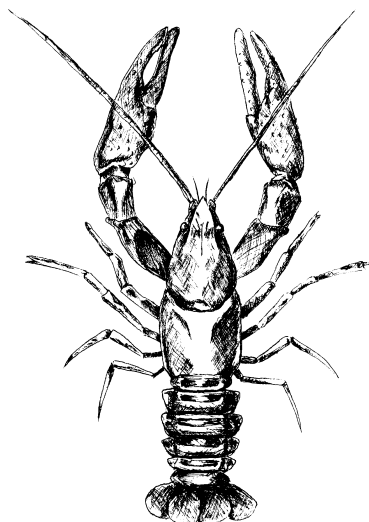
Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Mosses HAP

White-clawed Crayfish (*Austropotamobius pallipes*)



Objectives

- To arrest the decline of the white-clawed crayfish population in Staffordshire.
- To maintain the current white-clawed crayfish population in Staffordshire.

Targets

- To maintain all known important white-clawed crayfish populations by appropriate ongoing management and site safe-guard by 2005.

Achievements To Date (November 1998 - March 2001)

- Various sites are receiving appropriate management for their white-clawed crayfish including Stowe Pool and Chasewater.
- Five new sites have been identified throughout the County for white-clawed crayfish.
- Two sites within Staffordshire have been notified as SSSIs for their white-clawed crayfish populations.

Current Action

Protection & Policy

- The Joint Nature Conservation Council have published an action plan for the 'Conservation of the white-clawed crayfish in the UK'
- The white-clawed crayfish is listed on Schedule 5 of the Wildlife and Countryside Act 1981, Appendix III of the Berne Convention and in Appendix II and V of the European Habitats Directive.
- The Trent catchment has been designated by DEFRA as a 'no-go' area for crayfish farms to reduce the risk of accidental releases of alien species into the wild.

Management, Research & Survey

- English Nature has identified the white-clawed crayfish as a priority species for conservation on its Priority Species Action Programme.
- Environment Agency are leading on a R&D Project into methods of eradicating non-native crayfish from watercourses.
- An SBAP Species Recording Card has been produced and circulated for the white-clawed crayfish.

Action Plan

Policy and Legislation

- Seek to ensure all Staffordshire LEAPs include specific measures for white-clawed crayfish conservation. (**EA**)
- Seek to promote the issues relating to the spread of crayfish plague. (**EA**)
- Object to applications for crayfish farms and the issuing of licences for the release of non-native species into the wild. (**EA**)
- Lobby for changes in the Countryside Stewardship scheme for options to improve wetland habitats. (**SWT**)
- Ensure any examples of sites containing populations of this species that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)
- Object to applications for crayfish farms. (**EA & DEFRA**)

Site Safeguard and Species Management

- Create 20 sites suitable for white-clawed crayfish by 2010. (**Landowners, Developers**)
- Seek to ensure that suitable mitigation is undertaken on development adjacent to watercourses. (**Developers, LAs**)
- Implement measures to reduce the spread of non-native crayfish species. (**Angling Clubs, Water Companies, British Waterways**)
- Ensure flood defence and routine river and pool maintenance work is compatible with native crayfish habitat needs. (**EA, IDB**)

Monitoring & Research

- Set up and maintain a database for crayfish records. (**EA**)
- Pursue research opportunities with local universities through student projects. (**SWT, Universities**)

Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Provide advice to landowners on suitable habitat management for white-clawed crayfish. (**EA, GCT**)

Complementary Plans

UK White-clawed Crayfish SAP

Staffordshire Rivers and Streams HAP

Staffordshire Canals, Lakes and Ponds HAP

Dyer's Greenweed (*Genista tinctoria*)



Objectives

- Maintain all existing populations within the County.
- Increase the range and number of populations of this species within the county.

Targets

- Maintain all the existing populations by securing appropriate management and safeguarding all existing sites from 2001 onwards.

Achievements To Date (November 1998 - March 2001)

- A data search has revealed that there are currently fifteen known sites where this species occurs within the County.
- A small number of dyer's greenweed was introduced into meadows in Newcastle-under-Lyme in 1999.
- Recently found at Cotton Dell, a Staffordshire Wildlife Trust Nature Reserve

Current Action

Protection & Policy

- All the current sites containing dyer's greenweed are currently classified as Sites of Biological Importance.

Management, Research & Survey

- Staffordshire Flora Group is helping to record this species in the County.
- Two sites with strong populations of this species are actively managed for their nature conservation interest.

Action Plan

Policy

- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Encourage the uptake of agri-environment schemes on grassland containing this species. (**DEFRA, FWAG**)
- Continue with appropriate management of the species at all known strong populations within the County including the fields at Deep Hayes (**SCC**) and Cotton Dell (**SWT**).

Monitoring & Research

- Monitor the populations at all existing key sites. (**SCC, SWT**)
- Maintain a database of sites known to contain dyer's greenweed. (**SER**)

Advisory

- Ensure landowners and managers are aware of the presence and conservation significance of this species, and appropriate habitat management methods. (**SWT**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Unimproved Neutral Grassland HAP
Staffordshire Unimproved Acid Grassland HAP

Hybrid Bilberry (*Vaccinium x intermedium*)



Objectives

- Maintain all existing populations within the County.
- Enhance the current population of the hybrid bilberry within the County on sites where it is known to be present.

Targets

- Maintain all the existing populations by securing appropriate management and safeguard by 2002.

Achievements To Date (November 1998 - March 2001)

- A data search has revealed that there are currently over 90 records of this species within the County, the majority of these being found on Cannock Chase, which has the largest known population within the UK. Other locations include Maer Hills, Hednesford Hills and other suitable heathland sites.

Current Action

Protection & Policy

- Heathland areas within Cannock Chase and surrounding sites are being managed to conserve the nature conservation features of these areas.

Management, Research & Survey

- Staffordshire Flora Group is helping to record the hybrid bilberry in the County.
- Survey information is held by Staffordshire County Council, Cannock Chase Council and Staffordshire Ecological Record.
- Ongoing monitoring of known sites on Cannock Chase and Hednesford Hills is undertaken by Staffordshire County Council and Cannock Chase Council respectively.
- Cuttings of hybrid bilberry (taken from local provenance) have been established in new areas on sites where it is known to occur.

Action Plan

Staffordshire Lead organisation: **Staffordshire County Council**

Policy

- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Liaise with leisure interest groups to incorporate hybrid bilberry conservation into their site management or to re-direct their activities to more robust locations. (**SWMHP**)
- In areas where the hybrid occurs, ensure that scrub, trees, bracken and dense areas of heather are controlled to reduce competition. (**SWMHP**)
- Promote the creation and recreation of heathland adjacent to areas of fragmented heath where hybrid bilberry is known to be present. (**SWMHP**)
- Seek to re-introduce controlled grazing on Cannock Chase and other appropriate sites. (**SWMHP, SCC**)
- Seek to keep a similar level of disturbance along heathland footpaths where this species is known to persist. (**Landowner**)
- Seek to ensure that developing woodland and plantations containing viable populations of hybrid bilberry are not adversely managed. (**FE and other Landowners**)

Monitoring and Research

- Monitor the current condition of all known hybrid bilberry populations in Staffordshire by 2005. (**SWMHP, Universities**)
- Research into the exact habitat requirements for hybrid bilberry. (**SWT, Universities**)
- Maintain ongoing liaison with relevant agencies to ensure best practice in heathland management and re-creation. (**SWMHP**)

Advisory

- Advise on heathland management and restoration. (**SWMHP**)
- Promote the biodiversity and landscape value of heathland to the public and landowners. (**SWMHP**)
- Ensure that all the relevant organisations and agencies are aware of all known populations. (**SWT**)

Complementary Plans

Staffordshire Lowland Heathland HAP

Floating Water-plantain (*Luronium natans*)



Objectives

- To maintain the present range.
- To increase the overall number of sites at which the species is present and the number of plants at each site.

Targets

- Increase the number of populations of floating water-plantain by two populations by the year 2005.
- Maintain and enhance all current known populations of this species within the County.

Achievements To Date (November 1998 - March 2001)

- English Nature has carried out a survey of this species with three known sites for the County.

Current Action

Protection & Policy

- The Cannock Extension Canal has been notified as a Site of Special Scientific Interest in 1993 and is a proposed candidate SAC.
- Floating water-plantain is listed on Annexes II and IV of the Habitats Directive and Appendix I of the Berne Convention. It is protected under Schedule 4 of the Conservation (Natural Habitats, etc.) Regulations 1994 and Schedule 8 of the Wildlife and Countryside Act 1981.
- Floating water-plantain has been listed as a costed, key species in the UK Steering Group Report.
- British Waterways Board is the lead organisation for this species in the UK.

Management, Research & Survey

- The development, with British Waterways, of management guidelines for those canals supporting this species.
- Two sites with populations of this species are actively managed for their nature conservation interest.

Action Plan

UK Lead organisation: **British Waterways Board**

Policy

- Lobby against and object to canal restoration schemes that could compromise populations of this species. (**SWT and other conservation bodies**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to implement appropriate management on all sites known to support populations of this species. (**EN, BWB**)
- Where appropriate, seek water quality improvements in those water bodies supporting this species. (**BWB, EA**)
- Where this species may have previously existed, but where it is no longer apparently present, experiment with dredging small areas of water bodies to give any remaining seed a chance to germinate. (**Landowners, BWB**)

Research and Monitoring

- Monitor all known floating water-plantain populations. (**EN**)
- Undertake research / information search on the specific habitat requirements of floating water-plantain. (**EN**)

Advisory

- Ensure that all the relevant organisations and agencies are aware of all known populations. (**EN**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Canals, Lakes and Ponds HAP

Grass Wrack Pondweed (*Potamogeton compressus*)



Objectives

- To maintain and enhance the present range of this species in Staffordshire.

Targets

- Increase the number of populations of grass wrack pondweed by two populations by the year 2005.
- Maintain and enhance all current known populations of this species within the County.

Achievements To Date (November 1998 - March 2001)

- English Nature commissioned a national survey of this species in 2000. It is currently known to exist at two localities in the County.

Current Action

Protection & Policy

- Grass wrack pondweed has been listed as a costed, key species in the UK Steering Group Report.
- British Waterways Board is the lead organisation for this species in the UK.

Management, Research & Survey

- The landowners at one site have been informed of the presence and importance of this species.

Action Plan

UK Lead organisation: **British Waterways Board**

Policy

- Protect the site at Shugborough from potentially damaging activities. (**SCC, NT**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to implement appropriate management on all sites known to support populations of this species. (**Landowner**)
- Where appropriate, seek water quality improvements in those water bodies supporting this species. (**EA**)

Research and Monitoring

- Monitor known sites for grass wrack pondweed and sites that appear suitable for this species. (**EN**)
- Undertake research / information search on the specific habitat requirements of grass wrack pondweed. (**EN**)

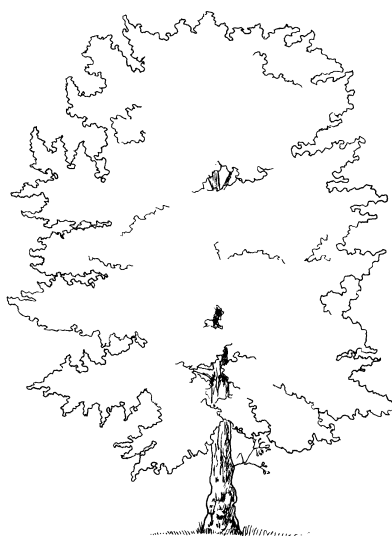
Advisory

- Ensure that all the relevant organisations and agencies are aware of all known populations. (**EN**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Canals, Lakes and Ponds HAP

Native Black Poplar (*Populus nigra* var. *betulifolia*)



Objectives

- To protect and retain all remaining black poplar trees.
- To have a greater understanding of the distribution and status of the species in Staffordshire.
- To increase the population of native black poplars at appropriate locations in Staffordshire.

Targets

- Maintain all known existing native black poplars from 2001 onwards.
- Increase the number of black poplars by 200 by 2010 using cuttings taken from local stock.
- Plant poplars in 25 suitable sites throughout the County by 2010.

Achievements To Date (November 1998 - March 2001)

- A total of 70 black poplars have been planted within the County.
- An initial data search was undertaken and a distribution map produced. The black poplar is seemingly uncommon, found mainly as isolated trees throughout the lowlands of the County.
- Black poplars have been planted at five sites since 1998.

Current Action

Protection & Policy

- Staffordshire County Council is the lead organisation for black poplar in Staffordshire.

Management, Research & Survey

- Staffordshire County Council is currently propagating poplar cuttings for planting at appropriate locations.
- National Trust has removed hybrid black poplars at their sites.
- An SBAP Species Recording Card has been produced and circulated for the black poplar.

Action Plan

Staffordshire Lead organisation: **Staffordshire County Council**

Policy

- Ensure that the records of all existing black poplars are incorporated into the development control system. (**SER**)
- Support the work of the national Black Poplar Working Group and update them on the situation in Staffordshire. (**SWT**)
- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)

Land Management

- Seek to increase the population of native black poplars of local provenance in the County by planting at appropriate locations and investigate potential planting areas away from known sites, in other river catchments. (**SCC, TNF, FoM, CRP, Mineral Companies, Developers and Landowners**)

Research & Survey

- Maintain at least one permanent propagation unit to safeguard existing stocks. (**SCC**)
- Maintain a database to record existing locations, new planting sites and maintain records of propagated stock. (**SCC**)
- Arrange for further genetic fingerprinting of the black poplars to establish the genetic base of the population and identify genetic variation. (**EA**)
- Ensure that all donor trees used for taking cuttings are native black poplars. (**EA**)

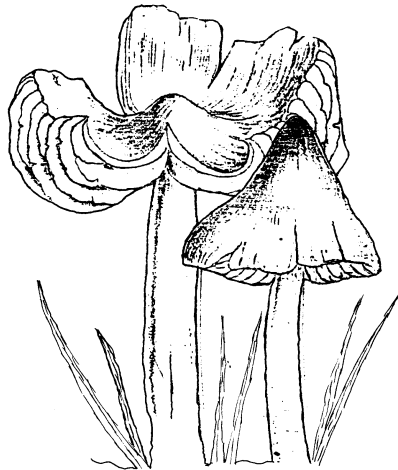
Advisory

- Advise landowners on appropriate planting and management of the native black poplar. (**SCC**)
- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)

Complementary Plans

Staffordshire Rivers & Streams HAP

Pink Meadow Cap (*Hygrocybe calyptraeformis*)



Objectives

- Maintain the current population by site safe-guarding and limiting damaging activities such as agricultural improvement.
- Where the species occurs, establish beneficial management practices to increase the population.

Targets

- Maintain the current population of pink meadow cap at all existing sites and increase the extent of the populations where possible.

Achievements To Date (November 1998 - March 2001)

- Nine sites for the Pink Meadow Cap are currently known for the County.

Current Action

Protection & Policy

- Pink Meadow Cap has been listed as a costed, key species in the UK Steering Group Report.
- Staffordshire Fungus Group is the Lead Organisation for the Pink Meadow Cap in Staffordshire.
- Plantlife is the lead organisation for this species in the UK.

Management, Research & Survey

- Staffordshire Fungus Group have taken part in the 'Waxcap Grassland Survey' of old lawns and churchyards.
- An up-to-date database of all fungi is kept at the Potteries Museum, Stoke-on-Trent.

Action Plan

UK Lead Organisation: **Plantlife**
Staffordshire Lead Organisation: **Staffordshire Fungus Group**

Policy

- Ensure any examples of sites containing populations of this species and that meet the required criteria are given SBI status. (**SBI Grading Committee**)
- Ensure appropriate sites containing populations of this species meeting the SSSI criteria are designated. (**EN**)

Land Management

- Seek to target Countryside Stewardship to grasslands known to contain strong colonies of this species. (**DEFRA, FWAG**)
- Seek establishment of suitable grazing/mowing regimes on all existing sites where the fungus is known to occur. (**Landowner, SFG**)
- Seek to control scrub invasion on all existing sites where the fungus is known to occur. (**Landowner, SFG**)
- Seek to ensure that appropriate survey work is carried out for any development proposal that may affect this species. (**LAs, SFG**)

Monitoring & Research

- Continue participation in national 'Waxcap Grassland Survey' to identify new sites. (**SFG**)
- Encourage regular visits to known sites to determine the current status of the species. (**SFG**)
- Review current collection, handling and dissemination of fungus distribution data with the aim to improve the current database. (**SFG, SER**)
- Investigate habitat requirements and ecology of this species in Staffordshire. (**SFG**)
- Pass all data to UK Species Action Plan for Pink Meadow Cap. (**SBAP Partnership**)

Advisory

- Increase species awareness for the public and landowners through education, promotion and events. (**SBAP Partnership**)
- Advise landowners on the management needs of this species. (**SFG**)
- Increase awareness and identification skills of surveyors by publishing articles and holding workshops. (**SFG**)

Complementary Plans

UK Pink Meadow Cap SAP
Staffordshire Lowland Acid Grassland HAP
Staffordshire Unimproved Neutral Grassland HAP