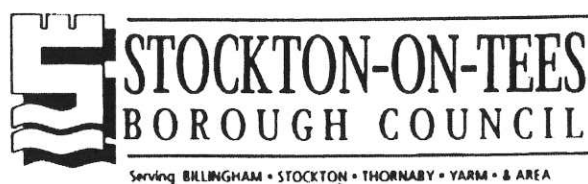
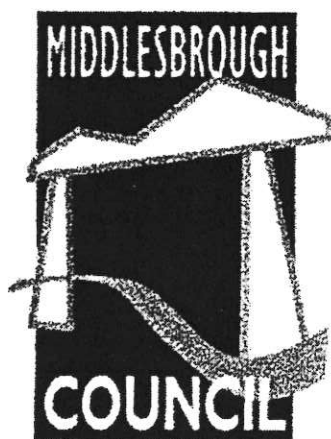
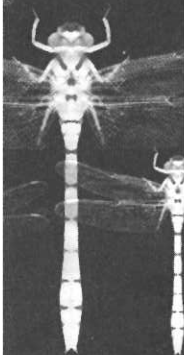
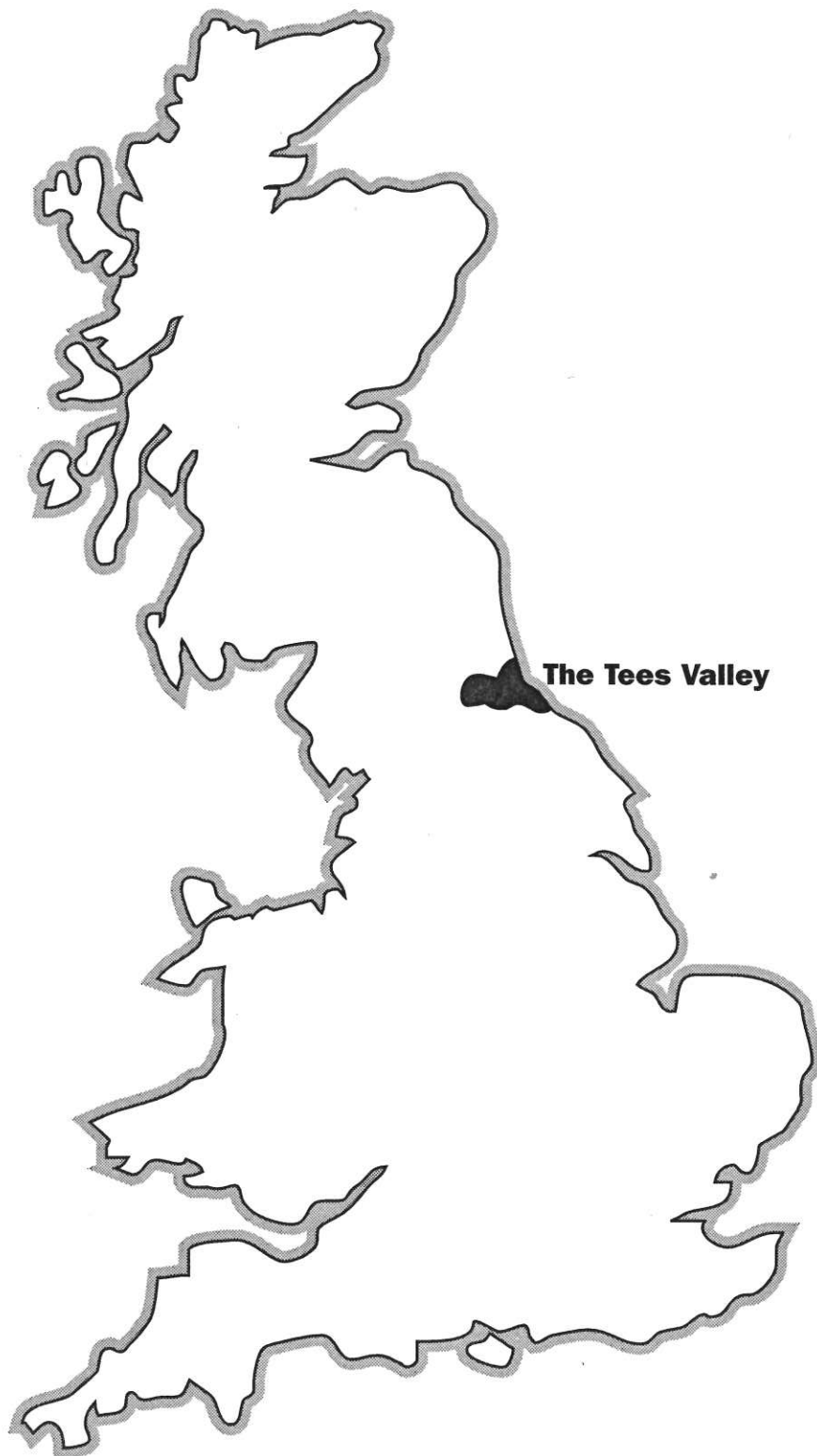


**The Tees Valley Biodiversity Action Plan
has been sponsored by**







The Biodiversity of the Tees Valley

The Tees Valley Wildlife Trust retains the copyright on this document and all of the ecological data contained in it. June 1999.

Foreword

Since Chris Baines launched the Tees Valley Wildlife Strategy in 1989, the Tees Valley area has had an agreed framework for wildlife conservation common to the public sector, wildlife groups and accepted by much of the private sector. The Wildlife Strategy also provided the impetus for continued co-operation between all of the organisations with an interest in nature conservation, through the Strategy Implementation Group. This group helped to ensure that policies in the Strategy were incorporated into statutory development plans, public sector strategies and voluntary sector programmes. It also initiated work on a more detailed survey of Sites of Nature Conservation Importance and ultimately a review of the original list of such sites. With this work completed much of the original purpose of the strategy has now been achieved.

Circumstances have changed since 1989. At the national level the Government signed up to the Convention on Biodiversity at the 'Earth Summit' in Rio in 1992. This was intended to draw attention to, and to take action to reverse the drastic loss of habitats, species and genetic material that has affected every country in the world in recent years. The Government also signed up to conventions on sustainable development, forestry and climate change, all of which have implications for wildlife conservation. The UK Biodiversity Action Plan was published in 1995, by a Steering Group established to develop Action Plans for individual species and habitats. The Steering Group sees Local Biodiversity Action Plans as being one of the principle means by which such actions can be achieved 'including targets which reflect the values of local people and which are based on the range of local conditions and therefore cater for local distinctiveness'.

Locally too, things have changed, with the abolition of the County Council and the inclusion of Darlington in the Tees Valley area. The time is now ripe, therefore, to take a fresh look at planning for wildlife conservation, taking into account changes in national policy and local administration, and rolling the plan on now that many of its original objectives have been achieved.

Biodiversity is a new word, not universally understood, and one of a suite of terms in common use in the environmental movement

(others include sustainable development, Local Agenda 21 etc.) which seem destined to confuse people rather than giving a clear sense of purpose. Its meaning though is simple, and relevant to everyone, that we must attempt to stem the decline and if possible bring about increases in the variety and amounts of wildlife. This simple message is what the Local Biodiversity Action Plan is all about.

The first necessary stage in preparing a plan to increase the variety of wildlife in the Tees Valley area is to find out where we are at present, i.e. to undertake an audit of the current wildlife resource. This document is therefore the first step in Local Biodiversity Action.

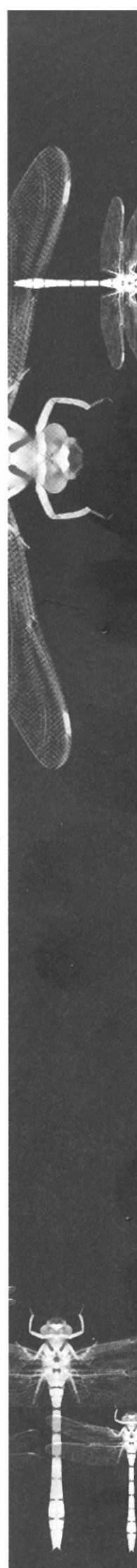
As one of the authors of the original Cleveland Wildlife Strategy I recommend this new approach to the local authorities, government agencies, conservation groups and all others who supported the strategy. I see this audit as the first step in what should be a continuous and co-operative process of ensuring that wildlife survives and prospers in the Tees Valley area.

Whilst this initial work has been undertaken and funded by the Tees Valley Wildlife Trust it is hoped that we will now be joined by all of the organisations involved in the previous work and in particular, by the new unitary authorities.

David Counsell

Chairman of Conservation Committee

Tees Valley Wildlife Trust





Executive Summary

This audit of the habitats and species of the Tees Valley has been produced in the light of biodiversity commitments made at national and international levels. The Government's signing of the Biodiversity Convention at the 1992 Rio Earth Summit and publishing *Biodiversity: the UK Steering Group Report* in December 1995, has set a global and countrywide context for action to safeguard important species and habitats.

This document takes its format from the UK Steering Group Report, reviewing the local status of the habitats and species as described in that document.

Habitat Audit

Using the data available from both the Phase One Habitat surveys of c.1986 and the subsequent Phase Two surveys (1993-6) of Sites of Nature Conservation Importance, the audit identifies, quantifies and maps the distribution of the habitats which characterise the Tees Valley area.

The habitat types used in this audit follow the Broad Habitat Types selected and defined in *Biodiversity: The UK Steering Group Report*. A total of 19 habitat types are audited in this manner.

Species Audit

The Species Audit takes as its lead the Long List of Species of Conservation Concern identified in *Biodiversity: The UK Steering Group Report*.

Species were selected for this list if they qualified for inclusion in one or more of the following categories.

- Threatened endemic and globally threatened species;
- Species where the UK has more than 25% of the world, or appropriate biogeographical, population;
- Species where numbers or range have declined by more than 25% in the last 25 years;
- Species which are listed in the EC Birds or Habitats Directives, the Bern, Bonn or CITES Conventions, or under the Wildlife and Countryside Act 1981.

The Long List does not claim to be a comprehensive record of all species of conservation concern, however, on the basis of the above definition, it is clear that this provides a priority list for protection and enhancement work in the Tees Valley.

There are 125 species which are on the UK Long List and are present in the Tees Valley. The audit has examined their local status, relying on information supplied by local experts and enthusiasts in addition to the records held at the Tees Valley Trust.

Contents

1. Introduction

- What is Biodiversity?
- Why is biodiversity important?
- How did the concept of Biodiversity arise?
- What is a Biodiversity Action Plan and why it is necessary?
- Biodiversity challenge
- Biodiversity: The UK Action Plan

2. Local Biodiversity Action Planning

- Purpose of Local Biodiversity Action Plans
- A Local Biodiversity Action Plan for Tees Valley
 - Area Coverage of the Plan
 - Structure of the Plan
- Progress on the Tees Valley Biodiversity Action Plan
- Creating Partnerships
- Local Environmental Initiatives
- The Tees Valley Area
 - Conservation Interest
 - History
 - Topography
 - Climate
 - Land-use
 - Wider Issues

3. Habitat Action Plans

- Semi-natural Broadleaved Woodland
- Plantation Woodland
- Heathland
 - Upland Heathland
 - Lowland Heathland
- Marine/Coastal
 - Maritime Cliff and Slope
 - Sand Dune and Coastal Grassland
 - Shingle Beach
- Wetlands
 - Standing Open Water
 - Fen, Carr, Marsh, Swamp and Reedbed
 - Grazing Marsh
 - Saltmarsh
 - Estuaries

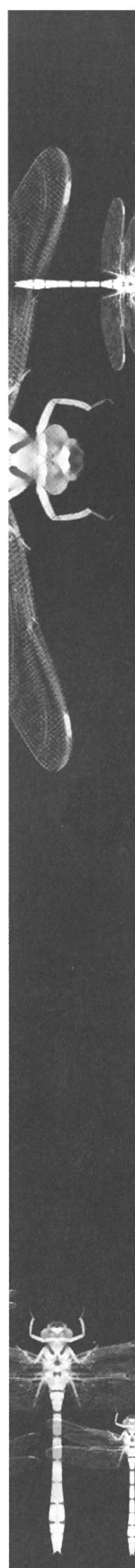
- Rivers and Streams
- Unimproved Grassland
 - Unimproved Neutral Grassland
 - Acid Grassland
 - Calcareous Grassland
- Arable/Improved Grassland
- Boundary Features
 - Hedgerows
 - Dry Stone Walls
- Urban
 - Schools and Amenity Grassland
 - Churchyards and Cemeteries
 - Gardens and Allotments
 - Ponds
 - Roadside Verges
 - Derelict Land

4. Species Action Plans

- Criteria for Species Selection
- The Tees Valley 50

5. Species Audit

Appendix



Introduction

"Biodiversity: The variety of life. Biodiversity is all living things, from the tiny garden ant to the giant redwood tree. You will find biodiversity everywhere, in window boxes and wild woods, roadsides and rain forests, snowfields and sea shore."

Biodiversity: The UK Steering Group Report 1995

What is biodiversity?

The word 'biodiversity' is an abbreviation of the term 'biological diversity', which encompasses the whole of the variety of life on earth, from the smallest insect to the largest mammal. Biodiversity takes into account variations between, and within, species - genetic variation, as well as variation in habitats and landscapes.

Biodiversity is not only about rare species found in nature reserves - it is also concerned with the species and habitats which we come into contact with on a daily basis. The wide variety of plants, animals and habitats around us enhance our lives and provide us with food, medicine and other materials which we often take for granted.

Brightly coloured flowers and the sound of birdsong make the world a more pleasant place in which to live and we must ensure that these simple but valuable pleasures are available for future generations.

Why is biodiversity important?

The biodiversity of the planet is a finite resource which must be conserved. Biodiversity is being lost at an alarming rate and action is necessary to slow this down. Already we have lost more than 100 species in the UK this century, including 7% of our dragonflies, 5% of our butterflies and over 2% of our fish and mammals. These species have taken many thousands of years to evolve and, once lost, they cannot be recreated.

Between 1.3 and 1.5 million species have been identified and described, however there are probably between 5 and 25 million species on the planet in total. It is highly likely that some species are being lost even before we know of their existence.

The biodiversity of our planet ensures its survival and enables it to adapt to changes over time. Unfortunately, man's activities are changing the environment at such a rate and on such a scale that many species are unable to adapt or simply do not have sufficient area of remaining habitat to support them. To ensure the continued



existence of species, genetic diversity must also be maintained. A problem encountered when species become rare is that the genetic resource becomes depleted to such an extent that the population is less resilient to disease or minor changes in habitat. Similarly, habitats become more vulnerable as they are reduced in size, partly due to the increasing impact of 'edge effects'.

It is essential to all of our lives, and those of future generations, that we take action to conserve and enhance biodiversity. That is not to say that we must sacrifice progress in favour of wildlife, but that we must consider all the impacts of our actions. Sustainable development is necessary - that which meets the needs of the present without compromising the ability of future generations to meet their own needs. Biodiversity must be seen as a valuable resource and not a hindrance to progress.

The Wildlife Trusts' general approach to biodiversity is to:

Conserve

Stop decline in pristine habitats;

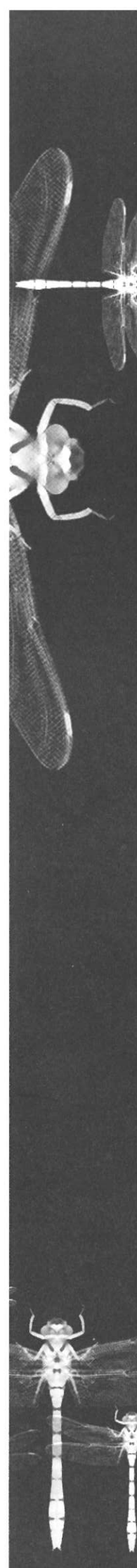
Enhance

Ensure sustainable management of wildlife;

Restore

Provide more space for wildlife;

In co-operation with others within a national and global context.





How did the concept of 'Biodiversity' arise?

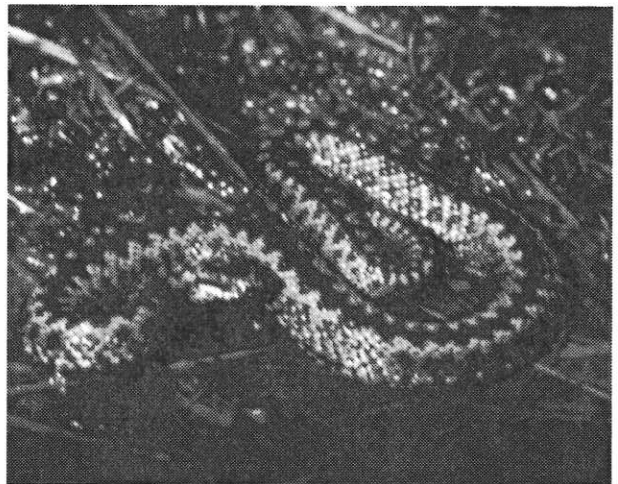
The United Nations Conference on Environment and Development was held in Rio de Janeiro in June 1992 to discuss environmental concerns. This was widely known as the Earth Summit and was attended by over 150 heads of government who came together to discuss the rapidly increasing loss of habitats and species across the globe. The conference was not only about the loss of, for example, the Black Rhino in Africa, but also the loss of species closer to home, even those which we regard as common. The UK Government signed the Convention on Biological Diversity which committed them to taking action to conserve biodiversity in the UK.

What is a Biodiversity Action Plan and why is it necessary?

A Biodiversity Action Plan sets out actions to be carried out to protect and enhance biodiversity. It identifies priorities for action so that resources can be targeted effectively, in both the long and short term. If every county and country were to conserve the habitats and species of which they had a significant amount of the total population, then global biodiversity would be secure.

'Thinking Globally, Acting Locally'

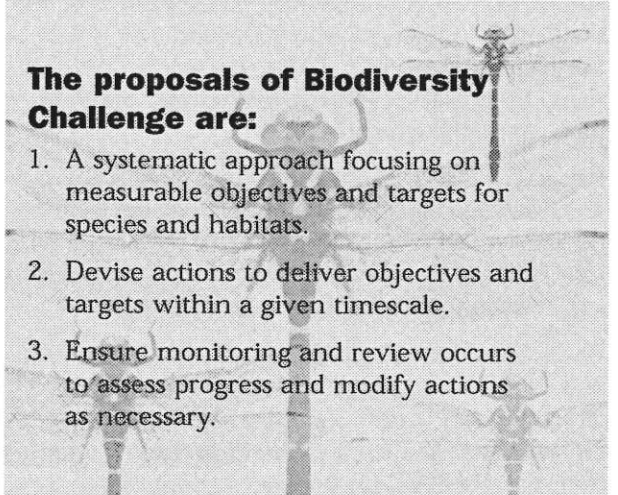
Biodiversity Action Plans should set measurable targets, allowing us to measure our success in reversing past losses of species and habitats. This Plan sets out the actions necessary to deliver conservation objectives in a strategic manner. The production of such a document also gives everyone a chance to participate in the process, including other conservation groups, industry and the general public and ensures that all people involved in conservation action are working towards the same goals.



The adder (*Vipera berus*) a priority species for conservation action in the UK Biodiversity Action Plan.

Biodiversity Challenge

In 1993, a body of conservation organisations including The Wildlife Trusts, RSPB, WWF, Friends of the Earth, Butterfly Conservation and Plantlife produced Biodiversity Challenge, which lays out an agenda for conservation in the UK. This document sets out a systematic approach to the conservation of UK biodiversity, concentrating on the achievement of measurable objectives. This preceded the UK Biodiversity Action Plan and was intended to be a visionary but practical contribution to the implementation of the UK Action Plan, laying down a challenge for government and all sections of society.



The proposals of Biodiversity Challenge are:

1. A systematic approach focusing on measurable objectives and targets for species and habitats.
2. Devise actions to deliver objectives and targets within a given timescale.
3. Ensure monitoring and review occurs to assess progress and modify actions as necessary.

The Biodiversity Challenge report stressed the need for Government to consult widely with other groups and for the integration of biodiversity into all government policy and action.

Biodiversity: The UK Action Plan

In response to the requirements of the Convention on Biological Diversity the UK Government published 'Biodiversity: The UK Action Plan' in 1995, with an overall goal to 'conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity through all appropriate mechanisms'.

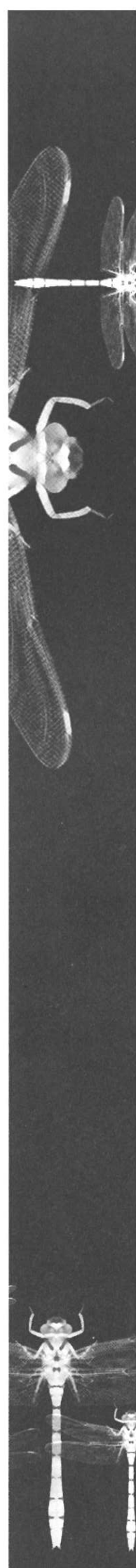
The Government took into consideration the proposals of the Biodiversity Challenge document and set national targets which they considered would be sufficient to sustain particular habitats and species.

The UK Action Plan included Action Plans for 116 species and 14 habitats as well as 37 statements for the remaining broad habitat types.

In 1998 the second tranche of Action Plans were published, which included a further 56 species action plans.

UK Biodiversity Action Plan Objectives

1. To maintain and, where practicable, to enhance;
 - overall populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems;
 - internationally important and threatened species, habitats and ecosystems;
 - species, habitats and natural and managed ecosystems that are characteristic of local areas;
 - the biodiversity of natural and semi-natural habitats where this has diminished over recent decades.
2. To increase public awareness of, and involvement in, conserving biodiversity.
3. To contribute to the conservation of biodiversity on a European and global scale.



Local Biodiversity Action Plans

"Biodiversity is ultimately lost or conserved at the local level. Government policies create the incentives that facilitate or constrain local action."

Biodiversity: The UK Action Plan, 1995

Purpose of Local Biodiversity Action Plans

Local Biodiversity Action Plans are the mechanism by which national biodiversity targets can be achieved. They serve to highlight where action is necessary and enable the targeting of resources to conserve and enhance biodiversity through local partnerships, taking into account both local and national priorities. Local Biodiversity Action Plans also have a part to play in the Local Agenda 21 process, providing a strategic way in which to implement nature conservation policies.

Tees Valley Biodiversity Action Plan

Area Coverage of the Plan

This LBAP covers the county formerly known as Cleveland, plus the additional area of Darlington. This area is referred to as the Tees Valley and covers a total of 78,721.05ha. The inclusion of Darlington is appropriate as it associates well with the neighbouring districts of Hartlepool, Stockton, Middlesbrough and Redcar and Cleveland, in terms of natural habitats and its unitary status. A slow and gradual integration of Darlington into this plan was thought to be most appropriate due to disparities in available data at the present time. The area of Darlington has also been covered in the Local Biodiversity Action for Durham, and the Durham Wildlife Trust will continue to lead on conservation delivery in this district.

Structure of the Plan

As far as possible the Tees Valley Biodiversity Action Plan will adhere to a similar approach as the UK Steering Group Report.

The UK Biodiversity Action Plan suggests a 5 step approach to the national conservation of biodiversity;

- 1 Carry out a biodiversity audit of species and habitats
- 2 Determine species and habitat priorities
- 3 Set goals, objectives and targets
- 4 Produce and implement Action Plans
- 5 Monitor and review progress

The Plan is being produced in a ring-bound format to enable the addition of Species Action Plans and targets for the Habitat Action Plans as they are developed in association with plan partners. The circulation of this first part of the Tees Valley Biodiversity Action Plan should act as a catalyst to the development of partnerships and wider ownership of the plan.

Progress on the Tees Valley Biodiversity Action Plan

The Tees Valley Biodiversity Action Planning process can be divided into three stages. These are detailed below;

Stage One

Production and publication of introductory document comprising;

An introduction to the Biodiversity Action Plan for the Tees Valley, habitat and species audit, priority habitat and species lists for Tees Valley area, outline Habitat Action Plans.

Circulation of this document should stimulate support for, and widespread commitment to, the Tees Valley Biodiversity Action Plan.

Stage Two

Before this stage can begin it will be necessary to employ a Biodiversity Officer and funding must be secured for this.

Formation of a Tees Valley BAP Partnership/ Forum which will help to guide the plan's progress.

Production and implementation of Action Plans for priority species and habitats.

Information will be circulated to all Plan Partners on a regular basis to detail progress.

Stage Three

Monitoring of achievement of targets,

Review of progress,

Reassessment of priorities.





Creating Partnerships

Biodiversity Action Plans differ from other conservation strategies and initiatives in two ways. They provide a framework for conservation of species and habitats in the long-term and they encourage a partnership approach.

The success of a Local Biodiversity Action Plan depends on gaining support from a wide range of people and organisations, including land owners and managers. Locally, biodiversity cannot be the sole responsibility of a single organisation or agency. It is only through the involvement of various sectors that we can achieve effective development and delivery of Local Habitat and Species Action Plans.

Every individual can make a contribution to the process, and their collective action, as well as the collective actions of the many authorities, agencies and organisations which have been charged with some form of biodiversity conservation role, must similarly be strategised to produce the best possible result. In the Tees Valley there is a history of natural partners, through the Cleveland Wildlife Strategy.

Cleveland Wildlife Strategy

The aims of the Cleveland Wildlife Strategy were to identify important sites for wildlife and the links between them, and to raise the general awareness of all groups and individuals within the county to the importance of the network of sites. This involved protection of sites through designation, improvement and management of existing habitats and the creation of new ones.

The Local Biodiversity Action Plan (LBAP) updates this document, taking into consideration the present structure of the Local Authorities. The Local Biodiversity Action Plan will have less emphasis on protection of specific sites for wildlife and more emphasis on action to be taken in the wider countryside to benefit certain target species and habitats.

Encouraging Wider Participation

For the Tees Valley Biodiversity Action Plan to be successful the support and commitment of a range of groups, organisations and individuals is crucial.

Already a variety of groups and other individuals have been involved in the process by contributing data and other information. These are groups which may have a special interest in a particular field (e.g. Teesmouth Bird Club), or those which are in close proximity to important habitats (e.g. industry around the Tees estuary).

In the Tees Valley there are a number of groups and organisations in the public, private and voluntary sectors which are undertaking activities to improve the area's environment. Some of the local environmental initiatives, which are relevant to the Biodiversity Action Planning process, are listed. It is hoped that these bodies will be actively involved in the production and implementation of Action Plans. These groups potentially have a major role to play in conserving biodiversity, either by helping in the monitoring of species and habitats, or by initiating action to further the biodiversity of local areas.



Local Environmental Initiatives

There are many plans, programmes and strategies concerning the management of our local environment. Local Biodiversity Action Plans do take a different approach to these and should serve to inform and guide existing and future nature conservation initiatives. Some of the existing local environmental initiatives are listed.

Tees - Local Environment Agency Plan

This is produced by the Environment Agency and is intended to be complementary to Local Authority Development Plans. It includes a vision for the Tees area, a policy framework based on environmental management issues and costed action plans to address identified issues.

Local Agenda 21

Local Agenda 21 has the overall aim of promoting sustainable development at the local level. This is reinforced by the Rio Declaration, Article 4, which states that 'In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it'. LA21 represents fundamental changes in approach and attitude towards environmental issues, comprising social and economic dimensions, conservation and management of resources for development, strengthening the role of major groups and means of implementation.

Local Development Plans

Each of these Borough Plans give policy support to protecting and enhancing the local environment. The Biodiversity Action Plan should now be acknowledged as an important mechanism to guide delivery of these policies.

North Yorkshire and Cleveland Heritage Coast

This was defined by the Countryside Commission in 1974 and stretches for 36 miles from Saltburn to Scarborough. The primary objective is to conserve, protect and enhance the natural beauty of the coast, including its terrestrial, littoral and marine flora and fauna, and its heritage features of architectural, historical and archaeological interest.

Cleveland Community Forest - Forest Plan

There are 25,500ha of land within the forest boundary. The plans aim, with regard to nature conservation is 'to conserve and enhance areas of existing nature conservation interest and to create new opportunities for wildlife within the forest, complementary to policies defined in the Cleveland Wildlife Strategy'.

Natural Area Profile

English Nature has developed the Natural Areas concept which divides the countryside into identifiable areas as a result of their physical attributes, wildlife, land use and culture. These features give a Natural Area a "sense of place" and a distinctive nature conservation character which we can seek to sustain (English Nature, 1993). The majority of our area, including the estuary is encompassed in the Natural Area profile for the Tees Lowlands. Parts of Redcar and Cleveland district are covered by the North York Moors and Hills Natural Area. These areas will be covered by the North York Moors National Park Biodiversity Action Plan.

Tees Estuary Management Plan

The Tees Estuary Management Plan is a non-statutory document which aims to form fully consulted management strategies which will ensure that the resources of the estuary are used in a manner that will allow economic development whilst sustaining and, where possible, enhancing its wildlife and community value.

North York Moors National Park Plan

The North York Moors were designated as a National Park in 1952. The purposes of National Parks, as amended in the Environment Act, 1995, are to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks and to promote opportunities for the understanding and enjoyment of the special qualities of the park by the public.

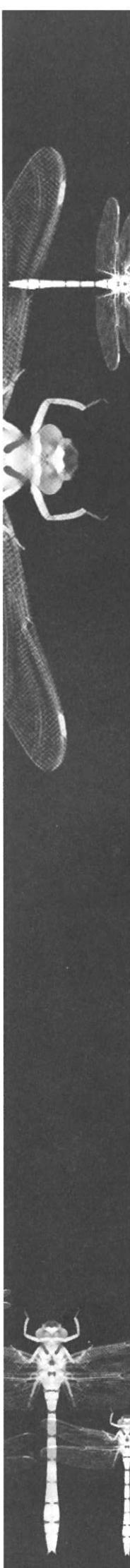


Table 1

The Tees Valley - Land Use

| HABITAT | DISTRICT | | | | | | | | | | | | | | TOTAL (Ha) |
|--|------------|-------|----------|-------|---------------|-------|---------|-------|------------|-------|---------------|--|--|--|---------------|
| | HARTLEPOOL | | STOCKTON | | MIDDLESBROUGH | | R&C | | DARLINGTON | | TOTAL (Ha) | | | | |
| | Ha | % | Ha | % | Ha | % | Ha | % | Ha | % | | | | | |
| Grassland | | | | | | | | | | | | | | | |
| Calcareous | 1 | 0.01 | 7 | 0.04 | - | - | 7 | 0.03 | 0.64 | - | 15.64 | | | | |
| Unimproved neutral | 74 | 0.78 | 204 | 1.04 | - | - | 30 | 0.12 | 137.32 | 0.7 | 445.32 | | | | |
| Semi-improved neutral | 741 | 7.86 | 1600 | 8.13 | 214.5 | 3.99 | 1983 | 8.25 | 265.36 | 1.34 | 4803.86 | | | | |
| Unimproved acidic | - | - | - | - | - | - | 501 | 2.08 | 0.96 | 0.01 | 501.96 | | | | |
| Semi-improved acidic | - | - | - | - | - | - | 218 | 0.91 | 0.08 | - | 218.08 | | | | |
| Improved grassland/arable | 5213.5 | 55.29 | 11219 | 56.98 | 1335 | 24.81 | 10733.5 | 44.63 | 15039.6 | 76.26 | 43540.6 | | | | |
| Amenity grassland | 225 | 2.39 | 524 | 2.66 | 583 | 10.84 | 498 | 2.07 | 703.72 | 3.57 | 2533.72 | | | | |
| Amenity with trees | 28 | 0.3 | 65 | 0.33 | 84.5 | 1.57 | 28.5 | 0.12 | - | - | 206 | | | | |
| Marshy grassland | 12 | 0.13 | 86 | 0.44 | 2.5 | 0.05 | 72.5 | 0.3 | 23.6 | 0.12 | 196.6 | | | | |
| Woodland and Scrub | | | | | | | | | | | | | | | |
| Semi-natural broadleaved | 28.5 | 0.3 | 177 | 0.9 | 16 | 0.3 | 688.5 | 2.86 | 167.48 | 0.85 | 1077.48 | | | | |
| Plantation (Broadleaved, coniferous and mixed) | 157 | 1.67 | 449 | 2.28 | 35.14 | 1.05 | 1427 | 5.93 | 379.08 | 1.92 | 2447.22 | | | | |
| Mixed semi-natural | - | - | - | - | - | - | - | - | 5.48 | 0.03 | 5.48 | | | | |
| Scrub | 9 | 0.1 | 9 | 0.05 | 2 | 0.04 | 35 | 0.15 | 40.89 | 0.21 | 95.89 | | | | |
| Recently felled plantation | - | - | 4 | 0.02 | - | - | - | - | - | - | 4 | | | | |
| Heathland | | | | | | | | | | | | | | | |
| Wet heath | - | - | - | - | - | - | 214 | 0.89 | - | - | 214 | | | | |
| Dry heath | - | - | - | - | - | - | 1357 | 5.64 | - | - | 1357 | | | | |
| Bracken | - | - | - | - | - | - | 119 | 0.49 | 2.88 | 0.01 | 121.88 | | | | |
| Wetland/Coastal | | | | | | | | | | | | | | | |
| Standing water, swamp, marginal and inundation | 42.5 | 0.45 | 115 | 0.58 | 17 | 0.32 | 113 | 0.47 | 154.8 | 0.79 | 442.3 | | | | |
| Dune/grassland | 157.5 | 1.67 | 7.5 | 0.04 | - | - | 325.5 | 1.35 | - | - | 490.5 | | | | |
| Saltmarsh | 15 | 0.16 | 11.5 | 0.06 | - | - | - | - | - | - | 26.5 | | | | |
| Miscellaneous | | | | | | | | | | | | | | | |
| Tall ruderal/short perennial | 117.5 | 1.25 | 43 | 0.22 | 77 | 1.43 | 301 | 1.25 | 28.36 | 0.14 | 566.86 | | | | |
| Bare ground | 72 | 0.76 | 136.5 | 0.69 | 30.5 | 0.57 | 268 | 1.11 | 48.36 | 0.26 | 555.36 | | | | |
| Built | 2387 | 25.31 | 4684 | 23.79 | 2684 | 49.87 | 4844 | 20.14 | 2688.6 | 13.63 | 17287.6 | | | | |
| Spoil | - | - | - | - | - | - | - | - | 8.96 | 0.04 | 8.96 | | | | |
| Tip | - | - | - | - | - | - | - | - | 8.48 | 0.04 | 8.48 | | | | |
| Other habitats | - | - | - | - | - | - | - | - | 7.36 | 0.04 | 7.36 | | | | |

Source - Wildlife Habitats in Cleveland
Durham Wildlife Unit

The Tees Valley Area

The Tees Valley area has a high concentration of industrial and urbanised areas, particularly around the River Tees. These areas are surrounded predominantly by agricultural land and small rural conurbations. There have been conflicts between industry and conservation interests, however, in many places industry and wildlife thrive side by side. In fact, many recent habitat creation or improvement schemes have taken place on land which is presently not required for industrial purposes. A wide range of semi-natural habitat types are represented in the area, including woodland, grassland and heathland.

Conservation Interest

Most of the Tees Valley area is within 'Natural Area 7 - The Tees Lowlands' in English Nature's Natural Area Profile. This describes the main features of the area and states conservation objectives which are taken into consideration in this Plan. The Natural Area Profile also recognises a series of sites around the estuary and coast as a Prime Biodiversity Area. (PBA) A Prime Biodiversity Area is; 'a limited area of countryside which encompasses an aggregation of outstanding sites. This group of sites may be of the same or inter-related habitat type, allowing beneficial concentration of effort in the PBA to maintain the sites and create new conservation opportunities'.

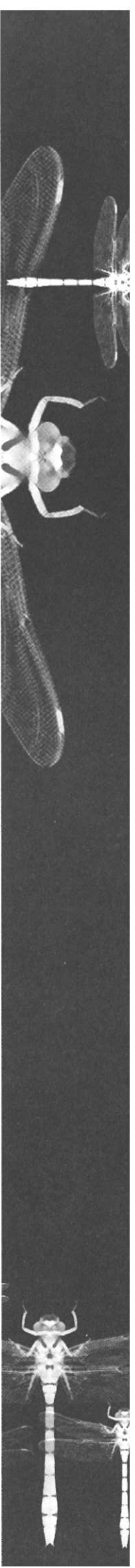
In the Lower Tees Natural Area the PBA comprises the Teesmouth Flats and Marshes complex, including North Gare Sands, Seaton Sands, Hartlepool Bay, Seal Sands, Bran Sands, South Gare and Coatham Sands and their associated dune systems, Seaton Common, Cowpen Marsh, ICI Brinefields, Saltholme, Dorman's and Haverton Pools and the mud banks along the river. Due to the importance of these sites, they will be targeted for priority action in this Local Biodiversity Action Plan.

History

Due to the easy access afforded by the River Tees, the Tees Valley area developed rapidly at the start of the Industrial Revolution. It became important for ironstone mining, steel production, shipbuilding and, later on, the chemical industries. Over the years many other manufacturing and service industries developed to meet increasing demand and major housing developments took place to house the expanding population.

In more recent years many of the older industries adjacent to the River Tees declined, leaving in their wake large expanses of derelict land. In some cases an increasing environmental awareness in the industrial sector has led to this land being managed for the benefit of wildlife, however, there are still large areas of derelict land with potential for habitat re-creation. These areas of land may eventually be returned to their original use.

Approximately 50% of the Tees Valley area is given to agricultural land use. The wildlife resource in the wider countryside has been under increasing pressure in recent decades as advances in agricultural practices have led to the use of intensive systems of agriculture which have allowed poor and marginal land to be brought into production.





Topography

The topography of the area is varied, ranging from coastal cliffs to upland moorland. Towards the south of the county there are escarpments of Jurassic deposits, typically planted with conifers, which fringe the North York Moors National Park. Some of these are included in the Tees Valley area. In the south-east of the county there are some of the highest coastal cliffs in England and steep-sided valleys which are cut by fast flowing streams. The banks of these often harbour remnants of semi-natural woodland. Around the Tees estuary the land is low-lying and large areas have been reclaimed for industrial purposes. Further towards the west the soils alongside and around the Tees tend to be rich and used for agriculture. In the north the land is gently undulating, sloping from the magnesium limestone ridge.

Climate

The climate of the area is largely influenced by the proximity of the North Sea, which reduces the temperature and leads to considerable cloud in spring and early summer. The surrounding high areas, the Pennines to the west and the North York Moors in the south, afford some protection from damp westerly winds, making the Tees Valley area relatively dry.

Land-use

(see Table 1)

Approximately 62% of the land area within the Tees Valley is given to agricultural land use, with 15% residential and 8% industrial land use. The remaining 15% is accounted for by a wide range of semi-natural habitats. The main centres of population are in Middlesbrough, Stockton, Hartlepool and Darlington.

Wider Issues

We must also take into account wider issues which have an impact on the natural environment, such as the effects of global warming and sea level rise. Current predictions suggest that the UK may be on average two degrees warmer by the year 2050, with wetter winters, earlier springs and drier summers, resulting in subsequent changes to our flora and fauna and the habitats upon which they depend. Sea level rise poses a particular threat to the coastal and inter-tidal habitats which are of such importance in our area.

It is important from a local and from a global point of view that the rate of climatic change is reduced. This involves increasing awareness of global warming and reducing emissions of 'greenhouse gases'. It may also be prudent to create 'buffer zones' to limit the impacts of sea level rise.



Habitat Action Plans

Introduction

Biodiversity conservation is not only about those habitats which are found in nature reserves, or which are rare. It is concerned with the whole range of habitats, both urban and rural, which make our world a diverse and varied place to live.

Maintaining all biodiversity is important, however there must be some prioritisation of habitats for which more urgent action is necessary. In selecting priority habitats the criteria used in the UK Biodiversity Action Plan have been taken into account, as well as the nature of the local area.

UK Biodiversity Action Plan criteria for prioritisation of habitats

- those for which the UK has international obligations through European law or international conventions.
- those which are at risk, declining or rare.
- those which are important for key species

Local Habitats

The habitat categories used in this plan correlate as closely as possible with the Broad Habitat types used in the UK Steering Group Report.

The UK Steering Group report listed 37 different broad habitat types, of these 19 occur in the Tees Valley area. Further habitat categories have been added to cover other urban habitats, giving a total of 25 habitats, as listed below.

The conservation of most species, possibly including species as yet unrecorded, can usually be achieved by maintaining the existence and functioning of habitats and the wider ecological systems which support them. Habitat loss and decline in habitat quality, due to development, agricultural intensification, pollution, drainage, disturbance, neglect, and over-exploitation, are primary factors in loss or decline of many species.

Habitat List

Habitats of Importance in the Tees Valley

Semi-natural broad-leaved woodland

Planted coniferous woodland

Upland heathland

Lowland heathland

Unimproved neutral grassland

Calcareous grassland

Improved grassland/arable

Acid grassland

Sand dune & coastal grassland

Maritime cliff and slope

Shingle beaches

Saltmarsh

Grazing marsh

Fen, carr, marsh, swamp and reedbed

Estuaries

Standing open waters

Rivers and streams

Boundary features

Ancient and/or species rich hedgerows

Dry stone walls

Urban habitats

Derelict industrial sites

Schools and amenity grassland

Churchyards and cemeteries

Gardens and allotments

Ponds

Roadside verges





Habitat Designations

Statutory Designation

Ramsar Sites
Special Protection Areas (SPA's)
Sites of Special Scientific Interest (SSSI's)
Special Landscape Areas
Heritage Coast
Local Nature Reserves (LNR's)

Non-Statutory Designation

Wildlife Sites or Sites of Nature
Conservation Interest (SNCI's)
Wildlife Corridors

Some of these important habitats cover only a small area, but are considered important as they represent the only examples of this type of habitat locally. Therefore, these areas are not recognised at a national level, although they may be of local interest. Distribution maps of the main habitat types have been produced, although in some cases this did not prove possible, either due to the large areas covered by the habitat e.g. arable land and amenity grassland, or due to the fragmented nature of the habitat e.g. hedgerows. Urban sites are locally important due to the relative lack of space for wildlife in built-up areas. Urban wildlife areas, along with designated sites and other countryside features, provide a network of corridors to ensure the maintenance of species diversity.

Due to the industrial heritage of this area, there remains a legacy of disused and derelict industrial sites which may exhibit interesting pioneer communities. These sites are covered under a separate section within the urban habitats statement because of their local significance. However, some of these sites have been in existence for a considerable length of time and exhibit the features of semi-natural habitats. More 'naturalised' industrial sites have also been included in the relevant Habitat Action Plan.

Priority Habitats

Some habitats are protected by statutory and non-statutory designations (listed below), but the vast majority remain unprotected.

- **Ancient/semi-natural broadleaved woodland**

This has been selected as a priority habitat due to the scarcity of this type of habitat, both nationally and locally. It also supports a greater diversity of species than many other habitat types.

- **Estuaries and associated habitats**

This covers a wide range of wetland habitats and has been selected due to the significance of the Tees estuary in terms of nature conservation. Many species occur in nationally and internationally important numbers, and for this reason the area makes an important contribution to UK biodiversity targets.

- **Marine/coastal habitats**

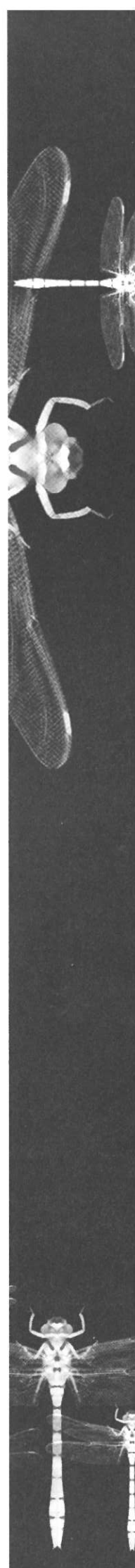
There is a large extent of this type of habitat locally, most of which is of ecological significance. This is also a habitat which requires further study.



Habitat Action Plans

Habitat Action Plans will follow the format below. This is similar to the framework suggested by the UK Steering Group.

- 1 **Habitat**
Description of the nature of the habitat
- 2 **Current status**
Extent of the habitat, on both a national and local scale. Local nature of the habitat
- 3 **Key species**
List of species characteristic of this habitat type
- 4 **Current factors affecting the habitat**
- 5 **Location of prime sites**
Lists of all designated sites of a particular habitat type. This includes statutory and non-statutory designations
- 6 **Current action**
- 7 **Tees Valley biodiversity species list**
List of species on UK Steering Group long list which occur in that habitat, along with their status
- 8 **Distribution map**
(where possible)
- 9 **National targets**
(if already set)
- 10 **Local objectives**
Broad objectives - targets to be added later in consultation with others.
- 11 **Links to other action plans**



Semi-Natural Broadleaved Woodland

Habitat

Semi-natural broadleaved woodland is that which is believed to have been under continuous woodland cover from at least 1600AD to the present. These areas are predominantly composed of native broadleaved species and may also contain up to 30% planted trees. The structure of these woodlands may vary and depends largely upon past management, as well as the particular climate and geology of the area. Broadleaved woodlands are quite open, allowing the development of a diverse ground layer supporting an array of plants, bryophytes, lichens, ferns, fungi and mosses. The trees which make up these woodlands support a huge number and diversity of insects, making them a valuable source of food for various bird species including titmice, summer migrant warblers and flycatchers, as well as providing nest sites and cover for many birds and animals.


Woodlands are living historic features which are closely linked to local communities and provide a peaceful and calm environment for the enjoyment of people and for recreational activities. Woodlands also have an economic value and, managed sympathetically, can meet our timber requirements as well as being of value to wildlife.

Current Status

Britain is one of the least wooded countries in Europe, with an estimated 800 000ha of semi-natural broadleaved woodland. Survey data shows that there is a total of 910ha semi-natural broadleaved woodland on Teesside, equating to 1.55% of the county's area and in Darlington 167.48ha (0.85% of total area). A large proportion of this occurs in steep-sided valleys, as the topography makes agricultural operations difficult. Our existing resource is only a small fraction of the British total of 752,000ha of native and non-native broadleaved woodland, however this is of considerable importance on a local scale. The UK as a whole has a small area of woodland cover compared to other European countries, but this is highly complex in structure and supports a wide variety of flora and fauna. This includes bryophytes, lichens, ferns, vascular plants, fungi, invertebrates, butterflies, animals and birds.

In the Tees Valley area these woodlands range from those whose canopy is dominated by ash with wych elm (on calcareous soils) to oak woods on more acidic soils.

Key Species

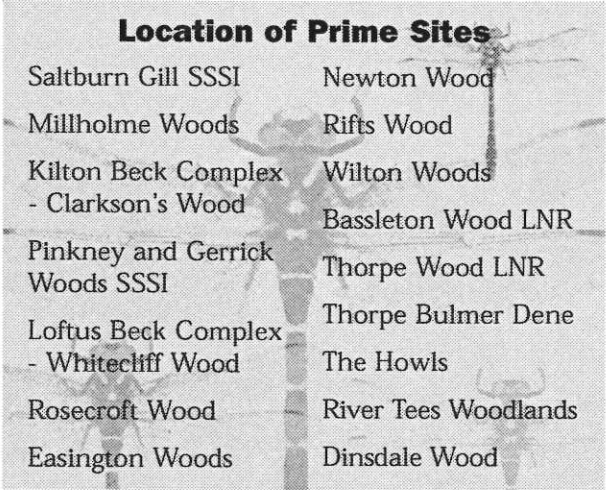


| | |
|----------------------------------|--------------------------|
| Field maple | Harts-tongue fern |
| Hazel | Badger |
| Ash | Fox |
| Sessile oak | Roe deer |
| Pedunculate oak | Great spotted woodpecker |
| Bluebell | Treecreeper |
| Dog's mercury | Alder |
| Ramsons | Rowan |
| Pendulous sedge | Willow |
| Opposite leaved golden saxifrage | Wych elm |

Current Factors Affecting the Habitat

- Clearance for other land uses - development pressure.
- Competition from non-native species e.g. sycamore, rhododendron.
- Replacement of slow-growing broadleaved species with conifers for timber production.
- Inappropriate management or neglect.
- Acid deposition.
- Air pollution has adverse effects on photosynthesis and on lichens and bryophytes due to particle deposition.
- Overgrazing by deer and domestic stock.

Location of Prime Sites



| | |
|---------------------------------------|----------------------|
| Saltburn Gill SSSI | Newton Wood |
| Millholme Woods | Rifts Wood |
| Kilton Beck Complex - Clarkson's Wood | Wilton Woods |
| Pinkney and Gerrick Woods SSSI | Bassleton Wood LNR |
| Loftus Beck Complex - Whitecliff Wood | Thorpe Wood LNR |
| Rosecroft Wood | Thorpe Bulmer Dene |
| Easington Woods | The Howls |
| | River Tees Woodlands |
| | Dinsdale Wood |

Current Action

Cleveland Community Forest Strategy





Broadleaved Woodland - Tees Valley Biodiversity Species List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Roe deer

Whitethroat

Song thrush

Badger

Woodcock

Redstart

Garden warbler

Blackcap

Wood warbler

Willow warbler

Marsh tit

Spotted flycatcher

Pied flycatcher

Green woodpecker

Great spotted woodpecker

Lesser spotted woodpecker

Tree pipit

Blue tit

Great tit

Nuthatch

Treecreeper

Tree sparrow

Goldfinch

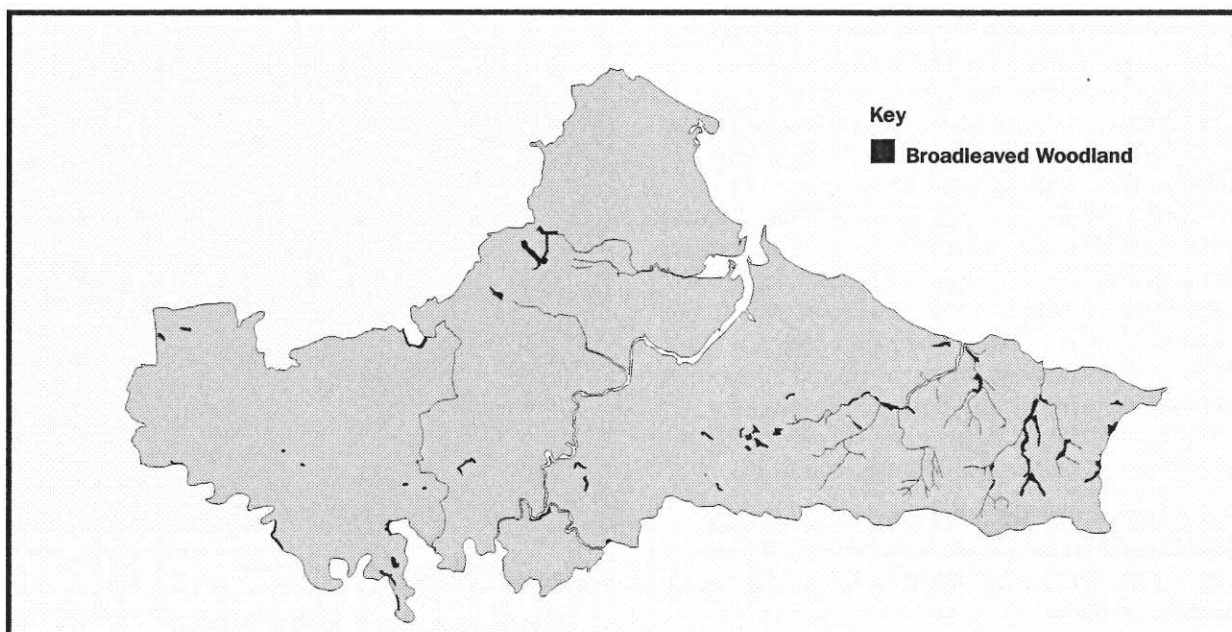
Lesser redpoll

Bullfinch

Hawfinch

Bluebell

Distribution of Broadleaved Woodland



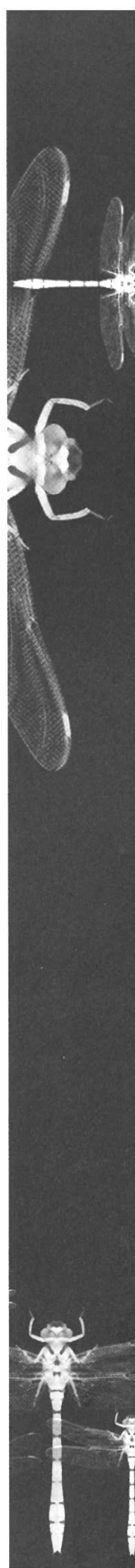
National Targets

No Costed Action Plan has been formulated for semi-natural broadleaved woodland as yet, therefore these targets have been adapted from the Upland Oakwood Costed Habitat Action Plan.

- Maintain the existing area and improve its condition, by a mixture of management for timber (predominantly as low intensity high forest), or sheltered grazing and minimum intervention.
- Avoiding other habitats of high nature conservation value, expand the area of woodland by about 10% on to currently open ground, by some planting but particularly by natural regeneration by 2005.
- Identify and encourage the restoration of a similar area (about 10%) of former woodland that has been degraded by planting with conifers or invasion by rhododendron.

Local Objectives

- Maintain existing woodland cover and seek to increase the total woodland area by 10% ie. 91ha by 2005. Other habitats of high conservation value should be avoided and areas adjacent to existing woodland should be targeted for creation of new woodland.
- Reinstate management regime in ancient and semi-natural woodlands which have been neglected.
- Raise awareness of the importance of woodlands as a semi-natural habitat.



Plantation Woodland

Habitat

These woodlands are generally managed for commercial timber production and are often monocultures of fast growing, non-native coniferous species. Coniferous woodlands do still, however, provide good cover for wildlife. Increasingly, native species are being planted, enabling the development of a more traditional woodland flora and fauna, and management practices are being altered for the benefit of wildlife. In these areas a mix of broadleaved and coniferous species are often found, with conifers being dominant.

Sycamore and beech are frequently planted and, although not creating the most ideal conditions for our wildlife, they are a significant improvement on the non-native coniferous species planted in the past. In plantation woodlands the lower shrub and herb layers may be less developed or absent and therefore these sites are less diverse in terms of flora and fauna.

Current Status

Across Great Britain 1,516 000ha, 7% of the total area of the country, is covered by coniferous plantation. These woodlands are generally botanically poor, due to the high degree of shading and acidic conditions. However they do provide cover for certain species and contain features, such as rides and glades, which can be important for vascular plants and invertebrates.

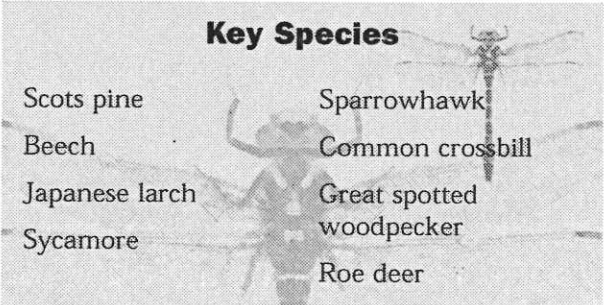
There are 2,527.58ha of plantation woodland in the Tees Valley, which represents over two-thirds of the total woodland resource of the area.

Most of this is south of the River Tees, in the Guisborough and Upleatham areas and, to the north of the Tees, the most important area is around Wynyard. Locally, broadleaved plantations tend to be of sycamore and beech, although in some cases native species are planted. In plantation woodlands the shrub layer is often absent and the herb layer tends to be impoverished and dominated by a few vigorous species such as bramble and nettle, etc.

In areas where evergreen conifers have been planted there is even less ground flora due to the much reduced light and very acidic leaf litter.

The oldest of these plantation woodlands to be found locally is Errington Woods which was originally planted in 1773. This is mainly coniferous with some sections of broadleaves including birch.

Key Species



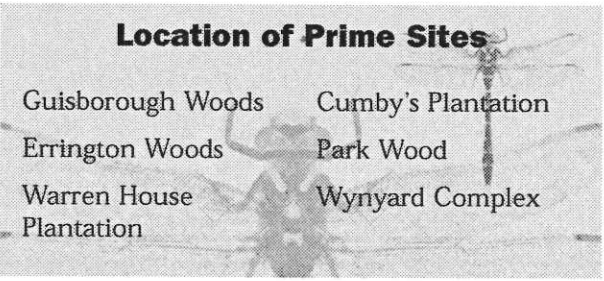
| | |
|----------------|--------------------------|
| Scots pine | Sparrowhawk |
| Beech | Common crossbill |
| Japanese larch | Great spotted woodpecker |
| Sycamore | Roe deer |

Current Factors Affecting the Habitat

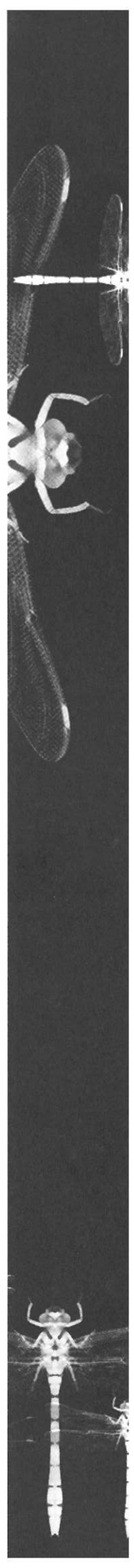
Plantation woodland is under no particular threat as a habitat in its own right, due to the large area of the resource. However, the management regimes of such plantations may have adverse effects upon the environment.

- Insensitive management can mean woodlands are produced which are low in diversity.
- Clear felling of large areas leaves the land vulnerable to erosion, reduces cover for birds and animals and has adverse effects on water bodies in the catchment area.

Location of Prime Sites



| | |
|-------------------------|--------------------|
| Guisborough Woods | Cumby's Plantation |
| Errington Woods | Park Wood |
| Warren House Plantation | Wynyard Complex |





Plantation Woodland - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Sparrowhawk

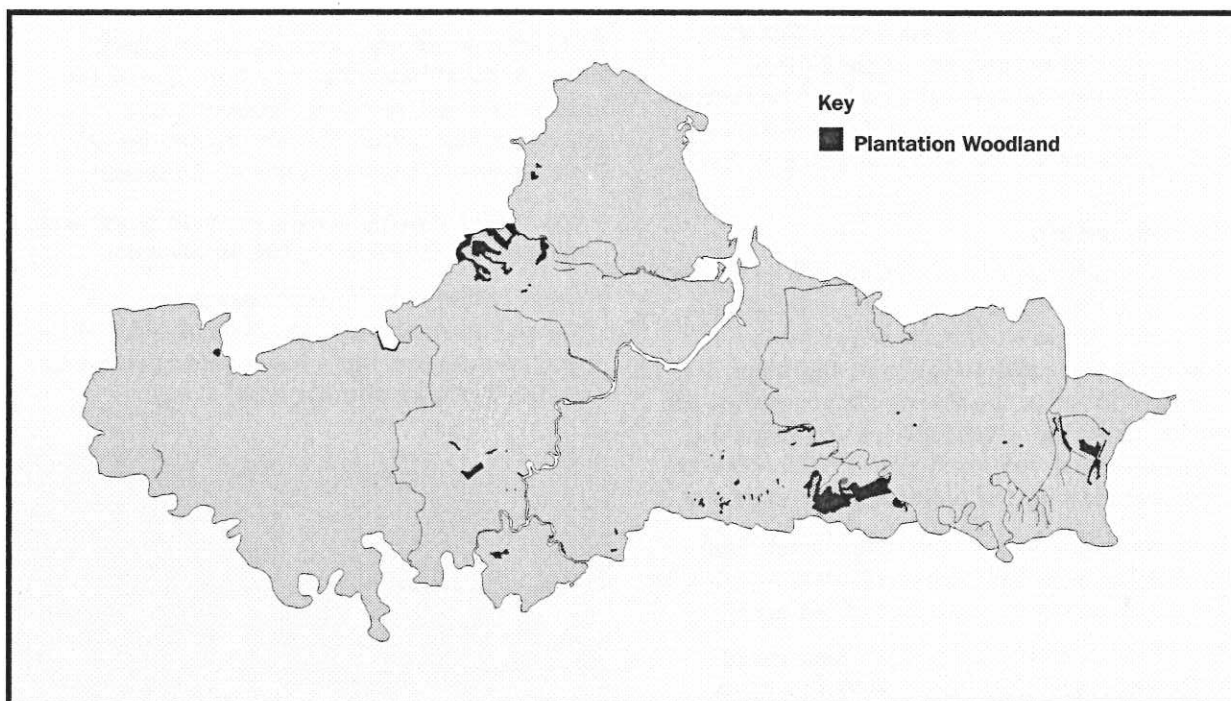
Coal tit

Goldcrest

Treecreeper

Willow tit

Distribution of Plantation Woodland



Current Action

One of the themes of the Rio Earth Summit was the future development of sustainable forestry. In response the Government produced Sustainable Forestry: The UK Programme 1994. This document outlines and endorses the valuable role which community forests will play.

The Forestry Commission has been moving away from block plantations of non-native coniferous species and clear felling over large areas in favour of more wildlife friendly methods, as detailed in Forest and Water Guidelines (1993), Nature Conservation Guidelines (1990) and Landscape Guidelines (1989). These are being drawn together with other environmental guidelines to produce standards for enhancing the biodiversity of planted forests.

The Middlesbrough Urban Forest Plan has been developed to address the particularly low level of tree cover in this borough.

Local Objectives

- Coniferous plantations do provide a range of opportunities for enhancing biodiversity as many are reaching a harvestable age, which will enable restructuring and changes in management.
- Encourage good management practices for plantation woodland which will benefit wildlife by improving structural diversity.
- Encourage good woodland management practices for plantation woodland which will benefit wildlife by improving structural diversity.
- Encourage woodland plantation only on land of low existing nature conservation value.



Upland Heathland

Habitat

Upland heathland occurs below the montane zone at approximately 300-400m in altitude. It is dominated by dwarf shrubs and grasses, and bog mosses are also a common feature. Upland heathland tends to develop on nutrient poor acid soils which receive over 100cm of precipitation per annum. Variation in botanical composition depends upon climate, altitude, aspect, slope, maritime influences and management practices.

Current Status

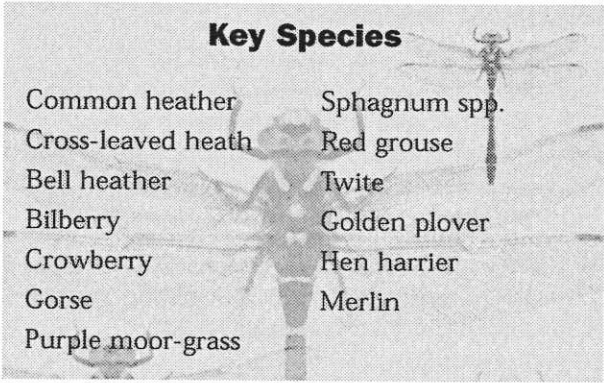
There are 1,144,000ha of upland heathland in England and Wales, 53,000ha in Northern Ireland and 2,514,000ha in Scotland. This area is of international conservation significance as dwarf shrub heaths are largely confined to Britain and the western seaboard of Europe. In the Tees Valley area, upland heathland covers a total of 1,690ha. This resource is of considerable biological importance and mostly occurs within the boundaries of the North Yorkshire Moors National Park. Upland heathland is the habitat of a range of plant, animal and bird species as well as various lichens, bryophytes and fungi.

Locally, heathland arises due to fairly moist air, soil conditions and various factors which prevent the establishment of trees, such as exposure to winds and recurrent fire and grazing. Historically, these areas were wooded but have been colonised by heather since woodland clearance many years ago. The nutrient poor, and often acidic, underlying soil results in the development of a very specialised and species – poor flora.

Where the water table is close to the surface the botanical community may include bog mosses, sundews, cotton-grass, sedges and rushes. In areas which are mineral enriched, fragments of eutrophic fen may occur, with plants such as marsh cinquefoil, bog bean and lesser spearwort eg. Waupley Moor. Large areas have been colonised by bracken, usually as a result of poor management.

The North York Moors are significant on a national basis as it is the most easterly upland block. It is isolated from other upland areas and many species are known to be at their northern and southern limits. As a result of the dry climate some of the low-lying areas have similarities with lowland heathlands, therefore there may be some overlap in Plans.

Key Species

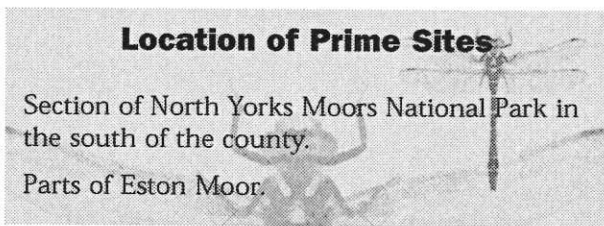


| | |
|--------------------|---------------|
| Common heather | Sphagnum spp. |
| Cross-leaved heath | Red grouse |
| Bell heather | Twite |
| Bilberry | Golden plover |
| Crowberry | Hen harrier |
| Gorse | Merlin |
| Purple moor-grass | |

Current Factors Affecting the Habitat

- Agricultural intensification - pasture improvement.
- Planting of coniferous woodland for commercial timber production.
- Intense recreational pressure - trampling, motorcycling.
- Lack of management, allowing encroachment of invasive species and eventual succession to scrub/woodland.
- Large areas have already been invaded by bracken (119ha), this could be reverted to heather moorland.
- Uncontrolled burning.
- Overgrazing - this is a major problem due to the way in which agricultural subsidies are organised. This can result in loss of heather and shrubs which may also be exacerbated by excessive burning.
- Acidification from atmospheric deposition.

Location of Prime Sites



Section of North Yorks Moors National Park in the south of the county.

Parts of Eston Moor.



National Targets

Maintain the extent, enhance the quality and restore upland dwarf-shrub heath as part of upland mosaics and transitions of semi-natural and natural habitats appropriate to soils and climate. Measures to be considered further include:

- Encourage sympathetic management of upland heath for wildlife, notably for greater structural diversity and for the rich lower plant communities.
- Promote demonstrations and advice on good muirburn practices.
- Need studies to investigate effects of acid deposition on upland heathland vegetation.
- Reduce grazing pressure from red deer and sheep by reducing their numbers.
- Protect upland heathland from inappropriate development by identification in relevant development plans and in Forest Indicative Strategies.

Local Objectives

- Protect and enhance areas of existing habitat
- Promote good management practices
- Research methods of bracken control

Lowland Heathland

Habitat

Lowland heathland generally occurs below 300m in altitude. It is a highly diverse habitat, consisting of heather, scattered trees and scrub, bare ground, gorse and wet areas. The varied structure encourages a wide diversity of birds, reptiles, invertebrates, plants, bryophytes and lichens, and is therefore of botanical, entomological and ornithological importance.

In fact, England's lowland heathland is of international importance and is recognised in European legislation including the Bern Convention and the Habitats and Species Directive. Many of the rare species associated with this type of habitat are in decline. Lowland heathland tends to occur on nutrient poor acid to neutral mineral soils such as sands and gravels.

It is essential that lowland heathland is actively managed to maintain the range of habitats which are associated with these areas, including bare ground, gorse and open water. Active management also maintains a range of growth stages, enabling successful regeneration, and reduces the soil nutrient levels. If left unmanaged, nutrient levels will increase and successional processes will lead to colonisation by bracken and scrub and an eventual return to woodland.

Current Status

Lowland heathland has declined drastically since 1800 making it a rare and threatened habitat. Only one sixth of the former area remains. Those areas which do remain tend to be small and highly fragmented. The UK has 58,000ha which accounts for 20% of the international total area of this habitat. The Tees Valley has just 287.5ha of lowland heathland, important due to the rarity of this habitat on both a local and national scale.

Current Factors Affecting the Habitat

- Disruption of hydrological systems.
- Fragmentation and disturbance by development.
- Nutrient enrichment.
- Lack of management leading to simplification in structure of vegetation.

Location of Prime Sites

All sites are in the Redcar and Cleveland area on moorland to the south of and around Eston.

Current Action

Minimal action at present.

Key Species

| | |
|--------------------|-------------------|
| Heather | Purple moor grass |
| Gorse | Mat grass |
| Cross-leaved heath | Bog mosses |





Heathland - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Curlew

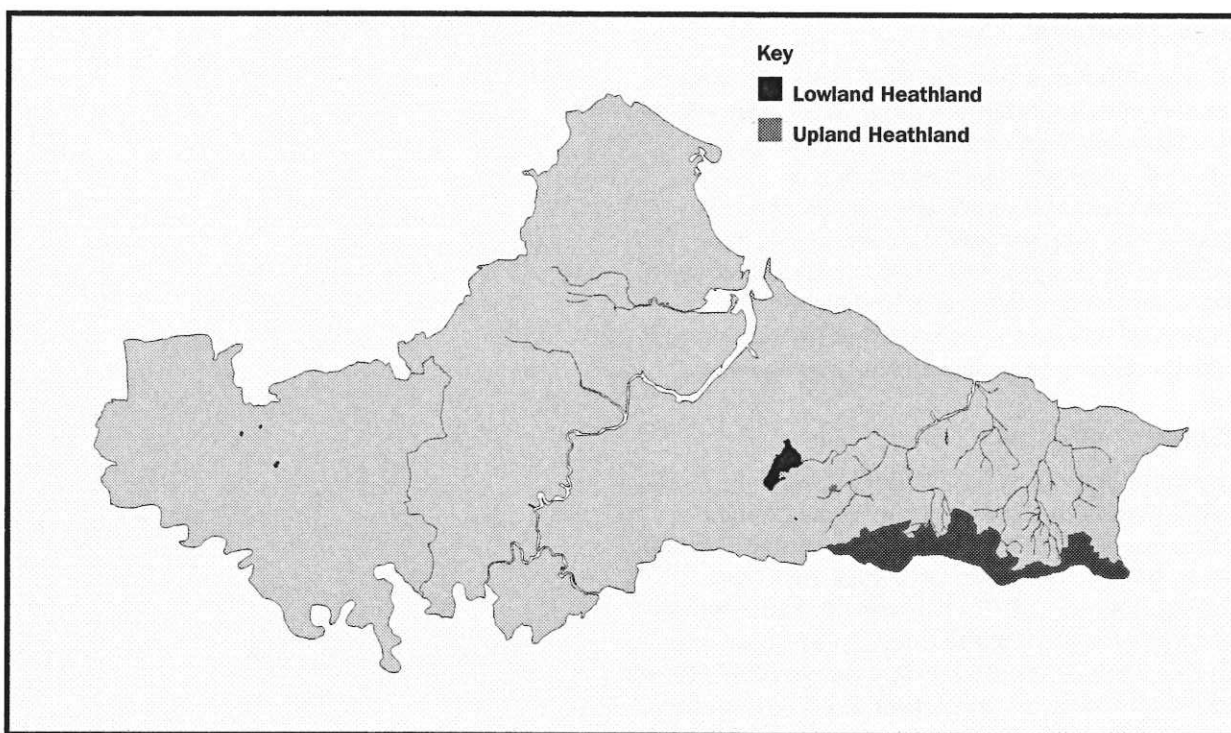
Meadow pipit

Whinchat

Adder

Short-eared owl

Distribution of Heathland



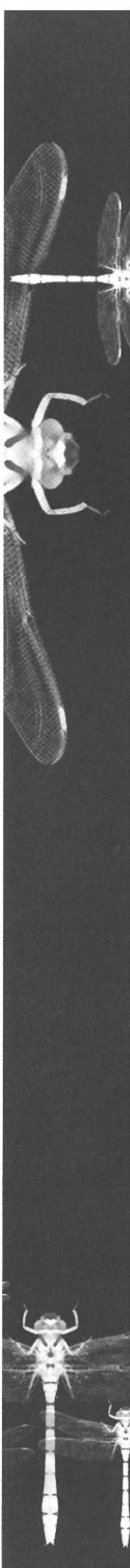
National Targets

- Maintain and improve by management all existing lowland heathland (58,000ha).
- Encourage the re-establishment by 2005 of a further 6,000ha of heathland, with the emphasis on the counties of Hampshire, Cornwall, Dorset, Surrey, Devon, Staffordshire, Suffolk and Norfolk in England, and Pembrokeshire, Glamorgan and west Gwynedd in Wales, particularly where this links separate heathland areas.

Through the Change in Key Habitats Project (CKH) it has been estimated that there is 67,000ha of recently modified heathland with the potential for restoration. The figure of 6,000ha therefore represents a modest attempt to recreate approximately 10% of the existing lowland heathland resource. This target could realistically be met using existing Countryside Management Schemes.

Local Objectives

- Maintain and improve by management all existing lowland heathland.
- Increase the area of lowland heathland on land adjacent to existing lowland heathland.
- Establish buffer strips to protect the heathland resource and decrease pressure from adjacent urban areas.
- Encourage and educate landowners and managers on good management practices.



Maritime Cliff and Slope

Habitat

This includes coastal cliffs and slopes ranging from 15 degrees to vertical. Coastal habitats less steeply sloping than this are included in the 'Sand Dune and Coastal Grassland' section. The vegetation of maritime cliffs can vary widely depending upon degree of slope, geology and exposure to wind and salt spray. These cliffs support a variety of plants and are important breeding grounds for various bird species.

Current Status

Approximately 4,000km of the UK coastline is cliff. In the Tees Valley area, parts of the coast have been affected by industrial and urban development, however most are still semi-natural habitats. Maritime cliffs rise to the east of Saltburn and continue for a 9km stretch to the county boundary at Staithes, apart from an interruption at Skinningrove. The maritime cliffs of the Tees Valley are of both local and national importance, being part of the North Yorkshire and Cleveland Heritage Coast, and approximately 3km are afforded protection as 'Hunt and Boulby Cliffs SSSI'.

Key Species

(See Coastal Grassland species also)

Kittiwake

Herring gull

Fulmar

Wild cabbage

Cormorant

Current Factors Affecting the Habitat

- Erosion by the sea; this occurs to varying extents depending upon the rock type.
- Cultivation of crops too close to the cliff edge leaving no refuge for wild plants.
- Eutrophication due to agricultural runoff leading to loss of plant diversity.
- Trampling and recreation, which increases erosion and disturbs nesting sea birds.

Location of Prime Sites

Saltburn to Staithes

Hunt and Boulby Cliffs (part of above)

Current Action

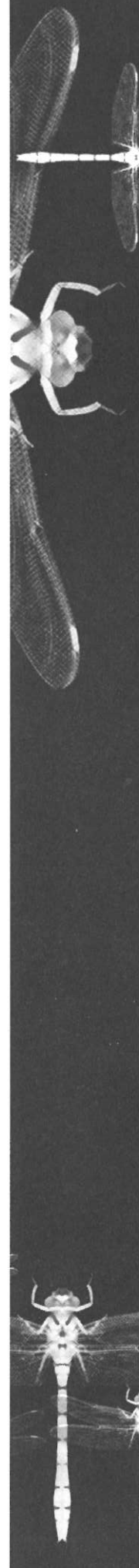
Some of the sites are designated SSSIs and are therefore afforded some protection.

The North Yorkshire and Cleveland Heritage Coast forms part of the coast. The objective of this, in terms of nature conservation is "To conserve, protect and enhance the natural beauty of the Heritage Coast, including the terrestrial, littoral and marine flora and fauna, the geological interest and the heritage features of architectural, historical and archaeological interest.

A large stretch of the coastline, from Saltburn to Scarborough has recently been purchased by the National Trust, giving protection from future development.

Local Objectives

- Maintain and manage in a natural state, including the great range of variation in habitat, hard rock cliffs and extensive soft rock cliff systems, whilst taking into consideration the need for essential coastal defence works.
- Evaluate the existing measures for conserving and managing maritime cliff and slope.
- Seek to increase level of protection of some sites of importance.
- Protect cliff habitats of conservation importance from inappropriate uses.
- Protect remaining localities where specialised algal communities have colonised the splash zone of chalk cliffs.
- Implement strategies for managing the coastal zone at local, regional and national levels.
- Review the powers and duties of coastal authorities for safeguarding this habitat.
- Encourage further survey work and research into the ecology of this habitat type.



Sand Dune and Coastal Grassland

Habitat

Sand dunes are a dynamic habitat which form a buffer zone between the coast and dry land. They range from fixed or 'grey' dunes to foredunes, which are actively growing. Sand dunes are of botanical and entomological importance and provide a habitat for certain protected species.

Coastal grasslands occur on the landward side of sand dunes and are often reduced in size due to development/recreational pressure. Coastal grasslands harbour vegetation tolerant of salt spray to varying degrees, and some species typical of calcareous grasslands and inland areas. The slope of these sites varies and can have a considerable effect upon the vegetation present.

Current Status

Sand dunes are widely distributed around the UK coast, with 31,436ha in Scotland, 9,276ha in England and 6,406ha in Wales.

The dune systems of the Tees Valley are of national importance, totalling 262ha. Of this total approximately 88% receive statutory protection as designated SSSI's. Hart Warren Dunes SSSI, in the North of the area, is a very important site which has many species of both northern and southern dune flora.

The species rich coastal grasslands of the Tees Valley are of local importance as they are uncommon in the county. These grasslands tend to be short due to the high degree of exposure and, because of the substrate, which often contains fragments of broken shells, they include species which are typical of lime-rich grasslands. There are approximately 25ha of coastal grassland, all of which are designated wildlife sites as they are of importance for insects, and the plant communities which are present.

Key Species

Sand Dunes

Sand couch grass
Lyme grass
Sea rocket
Marram grass
Sea buckthorn

Coastal Grasslands

Red fescue
Oat grass
Common stork's bill
Kidney vetch
Creeping restharrow
Sea plantain
Wild carrot
Buck's horn plantain
Burnt-tip Orchid
Dune helleborine

Current Factors Affecting the Habitat

- Human disturbance, particularly off road motorcycling.
- Extraction of sand for building prevents formation of new dunes due to loss of sediment supply.
- Increasing sea levels leading to steepening of foreshore and increased wave attack at base of dune systems.
- Cultivation of crops too close to the cliff edge leaving no refuge for wild plants.
- Eutrophication due to agricultural runoff leading to loss of plant diversity.
- Trampling and recreation, which increases erosion and disturbs nesting sea birds.

Location of Prime Sites

Hart Warren Dunes SSSI
North Gare and Seaton Sands SSSI
South Gare and Coatham Sands SSSI
Redcar-Saltburn
Saltburn-Staithe incorporating Hunt and Boulby Cliffs SSSI





Current Action

SSSI designation of the majority of these sites affords them some protection.

Recent purchase by the National Trust of a coastal strip stretching to the east of Saltburn gives area protection.

Local Objectives

- Minimise recreational damage by managing access.
- Beach replenishment where there is progressive erosion.
- Restrict sand extraction to specific areas.

Shingle Beaches

Habitat

Shingle beaches are composed of particles ranging from the size of a large sand grain, 2mm, to 200mm. This type of habitat tends to form in high energy environments where the sea deposits pebbles on the shore above the tideline. Generally, these habitats are dynamic in nature, only rarely becoming stable, and their extent depends upon wave action and sediment supply. In locations where shingle beaches are stable they may become semi-vegetated, exhibiting a few hardy, halophytic species, depending upon their proximity to the sea. Shingle beaches are important for a variety of invertebrates and ground nesting bird species such as the ringed plover and little tern.

Shingle beaches are often associated with sand dunes and coastal grasslands and suffer many of the same pressures and associated problems.

Current Status

Shingle beaches are widely distributed around the UK coastline. It is estimated that 30% of the coastline of England and Wales is bordered by shingle.

There are 38 kilometres of coastline forming the eastern boundary of the Tees Valley area. Some of this consists of coastal cliffs and lacks shingle habitat, however a large proportion of the coastline has some areas of shingle beach. This dynamic habitat varies in extent and is found from Crimdon Dene in the north of the county to Saltburn, with another area at Skinningrove.

Key Species

Little tern

Marram grass

Ringed plover

Current Factors Affecting the Habitat

Human Disturbance – in some areas high recreational pressure can result in disturbance and trampling of habitat. Use of vehicles on shingle beaches can cause considerable damage.

Sand and gravel extraction – impacts on the sediment supply to shingle areas and destroys the structure of the habitat.

Coastal defence structures – reduce the sediment supply.

Location of Prime Sites

Majority of coastline, from Crimdon Dene to Saltburn.

Skinningrove

Current Action

Many are already included in existing SSSI designations and therefore receive some protection.

National Targets

Maintain important shingle structures and the processes by which they are formed.

Local Objectives

Maintain shingle beaches and the processes which result in their formation by:

- Strategic management of the coastal zone, taking natural habitats into account in coastal defence and other construction works.
- Avoid damaging sites by sand and gravel extraction
- Encourage appropriate management of recreational and other uses of these habitats.



Marine/Coastal Habitat - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Common dolphin

Common seal

Cormorant

Ringed plover

Wheatear

Grasshopper warbler

Lesser black-backed gull

Herring gull

Common tern

Little tern

Rock pipit

Burnt-tip orchid

Atlantic salmon

Sturgeon

Sea lamprey

A gastropod (*Ashfordia granulata*)

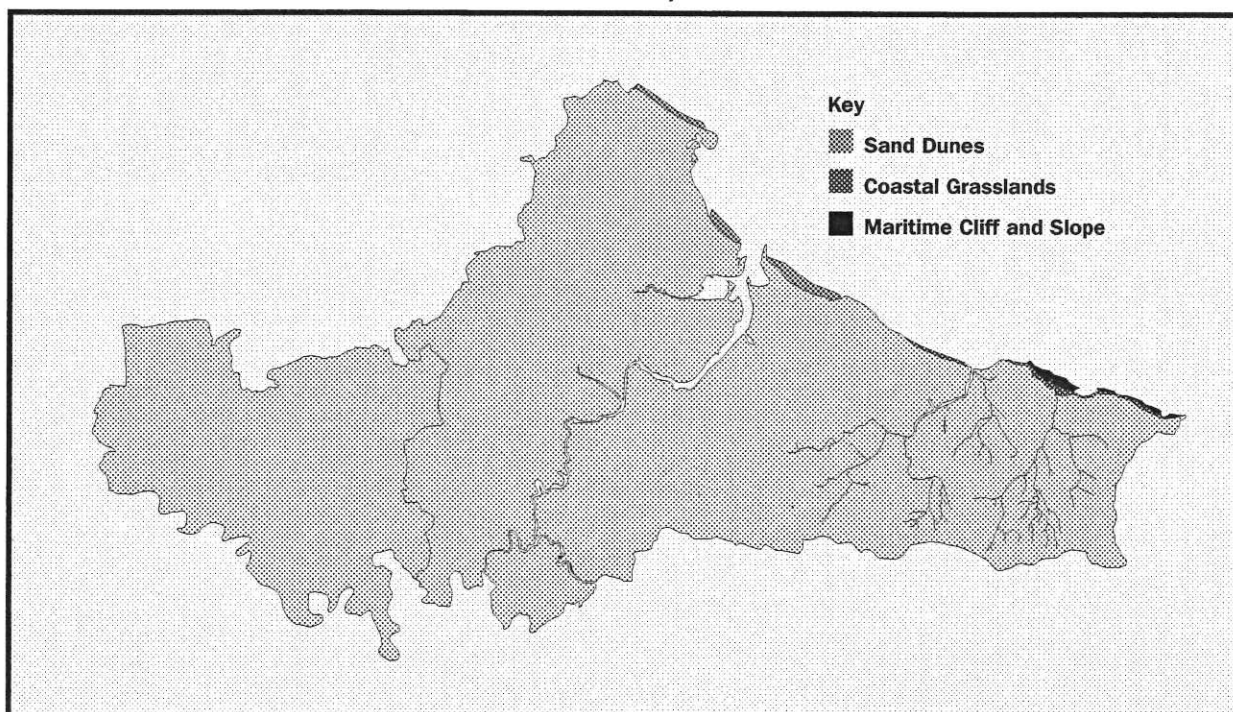
A snail (*Leiostryla anglica*)

Dog whelk

Northern brown argus

**A water beetle
(*Hydroporus rufifrons*)**

Distribution of Marine/Coastal Habitat



Fen, Carr, Marsh, Swamp and Reedbed

Habitat

These wetland habitats are found across the UK, some being more common than others. These habitats often blend into one another and may occur in association with open water, ditches and wet grassland.

Fens are 'minerotrophic' peatlands, receiving water and nutrients from the soil, rock and groundwater as well as from rainfall.

Carr is swampy woodland often found in association with fens and marshes.

Marshes usually develop on a mineral soil with a water level close to the surface for most of the year, but not usually above ground level.

In swamps, the water table levels are above or at the surface of the vegetation for most of the year.

Reedbeds are fens or swamps which are dominated by stands of common reed.

These habitats are dynamic and therefore management is necessary to maintain them and associated species, and prevent succession to scrub and woodland. Fen habitats support a diversity of plant and animal communities and may contain up to 550 species of higher plants, which equates to one third of our native plant species, many of the UK's dragonflies and many other invertebrate species.

Current Status

The UK holds a large proportion of the surviving fen in Europe, although fen vegetation has also declined here in the last century.

Marshy grassland, or fen, occupies just 173ha or 0.3% of the total area of the Tees Valley, a small proportion of the UK total, however these remnant patches are important on a local scale due to their rarity. These areas are usually managed by cattle grazing. Reedbed is also a rare habitat in the Tees Valley, with small remnant stands being found mainly around the Tees.

Many of these wetland habitats are protected under the Ramsar Convention due to their importance for waterfowl.

Current Factors Affecting the Habitat

- Small total area of habitat, and critically small population sizes of several key species dependent on the habitat.
- Pollution from industrial sources.
- Excessive water abstraction and drainage and conversion to intensive agriculture.
- Agricultural intensification leading to eutrophication.
- Lack of management leading to drying and eventual succession to scrub/woodland.
- Sea level rise threatens reedbeds, as most of these are on the coast of Eastern England where significant areas of habitat are expected to be lost.

Current Action

Some of the prime sites are managed specifically for the benefit of wildlife.

Location of Prime Sites

| | |
|-----------------------|----------------------|
| Carlton Rushy Pasture | Portrack Marsh |
| Aislaby Banks | Holme House Reed-bed |
| Cowpen Bewley | Coatham Marsh |
| North Burn | Burtree Gate Marsh |
| Beacon Hill | Coatham Grange Marsh |

National Targets

- Identify priority fen sites in critical need of, and initiate rehabilitation by the year 2005. All rich fen and other sites with rare communities should be considered.
- Ensure appropriate water quality and water quantity for the continued existence of all SSSI/ASSI fens by 2005.

Local Objectives

- Protect and enhance this habitat.
- Undertake active habitat management work to prevent succession and eventual loss of habitat.

Key Species

| | |
|--------------------------|--------------|
| Rushes | Soft rush |
| Sedges | Flote-grass |
| Meadowsweet | Ragged robin |
| Marsh marigold | Lady's smock |
| Large birds-foot trefoil | Water mint |



Standing Open Waters

Habitat

This includes both man-made water bodies such as reservoirs and flooded quarries, and natural bodies of freshwater such as ponds and lakes. The size may range from a metre to thousands of hectares. The nature conservation importance of these habitats depends largely upon the nutrient status, ranging from nutrient poor - oligotrophic, through to nutrient rich - eutrophic.

Water bodies are important for a wide range of species including birds, fish and amphibians. The importance of these habitats for wildlife depends largely upon the quality of the water.

Current Status

This habitat is widespread across the UK, and in the Tees Valley alone covers 320.78ha. Of this total, 198ha in the old Cleveland County have been declared as wildlife sites. These figures do not include ponds which are less than 0.5ha in area.

Many of the standing open waters in the Tees Valley are man-made, resulting from industry, and include flooded quarries, claypits and subsidence ponds which have occurred following salt extraction and ironstone mining.

Key Species



| | |
|-----------------------|--------------------|
| Common duckweed | Great yellow cress |
| Ivy duckweed | Water starwort |
| Broadleaved pondweed | Common reed |
| Spiked water milfoil | Reedmace |
| Water violet | Bullrushes |
| Common water-crowfoot | Swamp/marginal |
| Greater spearwort | Branched bur-reed |
| | Sedges |

Current Factors Affecting the Habitat

- Eutrophication caused by fertilizer run-off and organic matter etc.
- Increased rate of ecological succession due to siltation and organic matter input. Larger areas are more stable and less prone to these changes.
- Infilling and urbanisation.

- Pollution from industry which may result in acidification, particularly in areas with sensitive geology and soils.

Location of Prime Sites



| | |
|-------------------------|----------------------|
| Margrove Park Ponds | Dorman's Pool |
| Crookfoot Reservoir | Salholme |
| Lockwood Beck Reservoir | Sloshmere Gate Ponds |
| Scaling Dam | Wynyard Lake |
| Moor Plantation Pond | Oxbow Lake, Burdon |
| Haverton Hole | Stoney Flatts |
| Lovell Hill Ponds | Pitfield Pond |
| Reclamation Pond | Neasham Brickworks |
| | Drinkfield Marsh |

National Targets

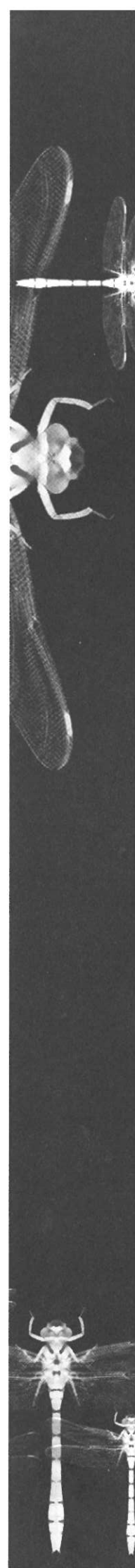
Maintain and improve the conservation interest of standing open waters, through the use of management plans and sensitive management of adjacent land. Create new standing open waters of maximum wildlife benefit, where possible.

Measures to be considered further:

- Statutory water quality objectives.
- Water level management plans.
- Integrated catchment management plans.
- Use existing measures such as Countryside Stewardship Waterside Landscape option to support appropriate management of open waters and their associated habitats.

Local Objectives

- Protect and maintain these areas through active management.
- Prevent pollution and over-abstraction of water.



Grazing Marsh

Habitat

Grazing marsh is pasture which is periodically inundated, or meadow with ditches to maintain the water levels, containing standing freshwater. These areas may be grazed or cut by mechanical means.

In the Tees Valley area, this category comprises a range of communities near watercourses where the soil is often waterlogged. The botanical composition varies widely depending on soil, water regime and management. Grazing marshes can be valuable for breeding waders and wintering waterfowl. They also provide an opportunity for more extensive agriculture as financial incentives are available, and also serve as additional flood storage areas.

Current Status

Grazing marsh is a rare habitat type across the UK, as in the Tees Valley, covering only 300,000ha. Of this UK total, only 10,000ha is semi-natural with a high diversity of native plant species.

Grazing marsh is of importance botanically and ornithologically, providing an important breeding and feeding area for wading birds. The grazing marsh in the Tees Valley is of local importance as it represents the remaining fragments of a rare habitat type. Due to their rarity, most of these marshes are already designated wildlife sites.

Key Species



| | |
|--------------------------------------|-----------------------------|
| Rushes, especially Saltmarsh rush | Large birds-foot trefoil |
| Sedges, especially Distant sedge | Flote-grass |
| Meadowsweet | Snipe |
| Marsh marigold | Lapwing |
| | Curlew |

Current Factors Affecting The Habitat

- Disruption of flooding regimes and water levels due to agricultural intensification, land drainage and flood defence works.
- Lack of traditional management and inappropriate management e.g. overgrazing or lack of grazing.
- Development pressure and disturbance from industrial and urban areas.
- Eutrophication due to industrial and agricultural pollution.

Location of Prime Sites

Billingham Beck
Valleys

Dorman's Pool
Saltholme

Cowpen Marsh SSSI

Current Action

SSSI and other designation.

National Targets

- Maintain existing habitat extent (300,000ha) and quality.
- Rehabilitate 10,000ha of grazing marsh which has dried out, or is intensively managed by the year 2000. This would comprise 5,000ha already in ESA's plus an additional 5,000ha.
- Creation of 2,500ha grazing marsh from arable land in targeted areas, in addition to that which will be achieved by existing ESA schemes, with the aim of completing as much as possible by the year 2000.

Local Objectives

- Protect and enhance all existing grazing marsh.
- Advise on the management of locally important sites to improve their value for wildlife.
- Discourage use of agrochemicals.
- Rehabilitate degraded habitat, particularly adjacent to existing high quality habitat.

Saltmarsh

Habitat

Saltmarsh is a highly productive habitat, 95% of which occurs within estuaries. It is a transitional habitat between sand and mudflat areas on the lower marsh, to brackish or freshwater marsh or dune vegetation on the higher reaches. Saltmarsh tends to develop on sheltered coasts where there is protection from strong wave action, and may be inundated at frequent to occasional intervals.

Saltmarsh is closely interrelated with other coastal habitats and therefore management should be undertaken in a comprehensive manner. Much of this is of botanical interest and supports a varied invertebrate fauna, many of which are GB Red Data Book species and are restricted to saltmarsh. The bare mud is also an important feeding ground for wintering and passage birds.

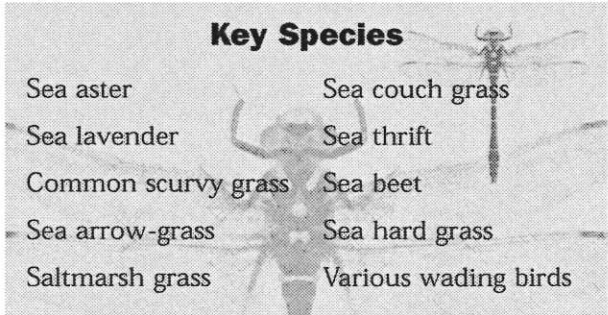
The area of saltmarsh in this country has already been drastically reduced as a result of agriculture and industry. Some relict communities may occur as isolated pockets on reclaimed land and in commercial brinefields. Due to the importance of this habitat, a large proportion is notified as SSSI and also receives protection under the Ramsar Convention.

Current Status

This habitat type is widely distributed around the UK, covering an area of approximately 45 000ha. The distribution of this habitat is fairly localised, with ten sites accounting for 60% of the total resource.

Saltmarsh is a rare habitat type in the Tees Valley, occupying just 26.5ha. On Teesmouth the extent of land reclamation has reduced this transitional habitat to little more than narrow belts of halophytic (salt-loving) plants in some areas. Some areas do receive protection through being within industrial land holdings and are therefore less subject to disturbance by man at present, although they may be at risk of development in the future.

Key Species



| | |
|---------------------|----------------------|
| Sea aster | Sea couch grass |
| Sea lavender | Sea thrift |
| Common scurvy grass | Sea beet |
| Sea arrow-grass | Sea hard grass |
| Saltmarsh grass | Various wading birds |

Current Factors Affecting the Habitat

- Global warming which is causing 'coastal squeeze' - due to rising sea levels and maintenance of sea defences. This results in loss of both upper and lower edges of saltmarsh habitat.
- Industrial development resulting in loss of upper saltmarsh and transitional communities.
- Pollution, especially from oil, and any clean-up operations.
- Reclamation of land.

Location of Prime Sites

Most saltmarsh is found around the River Tees and tends to be fragmented and patchy.

Greatham Creek - reasonable sized stand still persists.

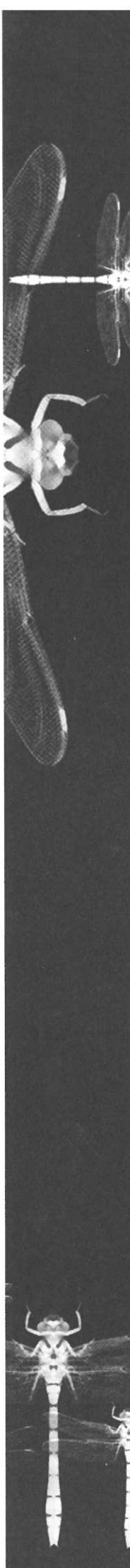
North Tees Brinefields - relict patches.

Current Action

Minimal at present, although the areas of saltmarsh around the River Tees receive some protection as a large proportion is adjacent to industrial premises.

Local Objectives

- Maintain and enhance the area and quality of saltmarsh and its constituent communities.
- Prevent further habitat loss to land claim and reverse poor habitat management.
- Protect all existing areas of saltmarsh.
- Create new areas of saltmarsh through managed retreat.



Estuaries

Habitat

Estuaries are the areas of partially enclosed water and soft tidal shore occurring at the river mouth. These receive saline water from the sea and freshwater from rivers, and also land run-off or seepage. Estuaries are associated with a suite of other habitats such as saltmarsh and other coastal habitats. This plan is concerned with the intertidal mud flats of estuaries which are frequently inundated by the sea.

Current Status

163 estuaries have been identified along the UK coastline, with a total area of 581,240ha.

The area of estuarine intertidal mud covers an area of just 294ha in the Tees Valley, a fraction of the original area. This remaining area is of national importance for migrating wildfowl and wading birds as it is the only extensive area of intertidal mud with tidal channels on the East coast of England between Lindisfarne and the Humber estuary. It receives statutory protection as an SSSI. Due to the importance of the Tees estuary for waterfowl, it is also protected under the Ramsar Convention and is a Special Protection Area.

It is also important for its botanical communities, especially halophytes, mammals, including common and grey seals, the aquatic and terrestrial invertebrates which play an important role in bird food chains, and the locally important amphibian populations.

The Tees Estuary is a designated National Nature Reserve and has been proposed as an International Nature Reserve because of its biological significance.

Current Factors Affecting the Habitat

- Global warming and sea level rise.
- Pollution from both land and sea, although this has decreased in recent years
- Reclamation for industrial development.
- Human disturbance, e.g. bait digging, shooting.
- Dredging.
- The Tees Barrage – may alter the pattern of sedimentation.

Location of Prime Sites

| | |
|-----------------------------------|--|
| Tees Estuary - Seal Sands (294ha) | Greatham Creek (smaller areas along banks) |
| Bran Sands | |

Current Action

These areas receive some protection from humans due to the industrial areas which surround them.

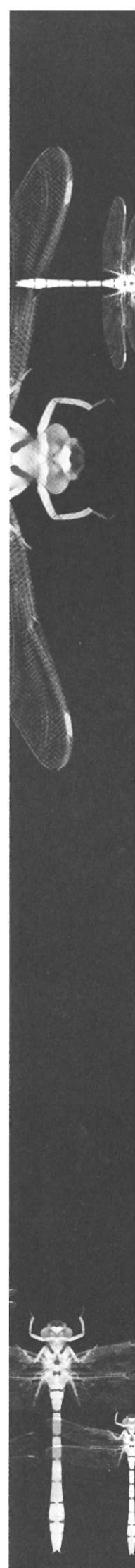
The Tees Estuary Management Plan was produced by INCA in 1997 with an aim 'to develop management strategies which will ensure that the resources of estuaries are used in a manner that will allow economic development whilst sustaining and where possible enhancing their wildlife and community value'.

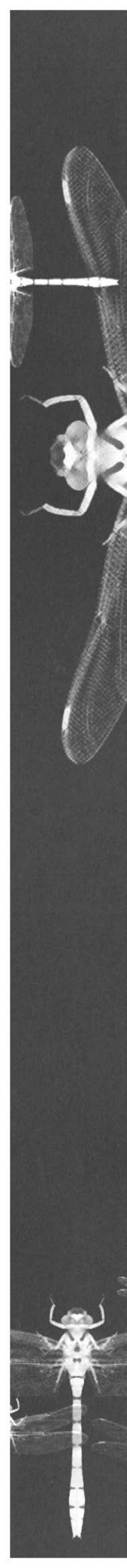
Local Objectives

- Protect these areas from industrial development.
- Monitor and control pollution of these habitats.

Key Species

| | |
|-------------------|-------------------|
| Polychaete worms | Bivalve molluscs |
| Oligochaete worms | Edible periwinkle |
| Paddle worm | Rough periwinkle |
| Mud snail | Oposum shrimp |
| Baltic tellin | Grey seal |
| Amphipod | Common seal |
| Isopod | |





Wetland Habitats - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Water rail

Snipe

Redshank

Little ringed plover

Grasshopper warbler

Sedge warbler

Pochard

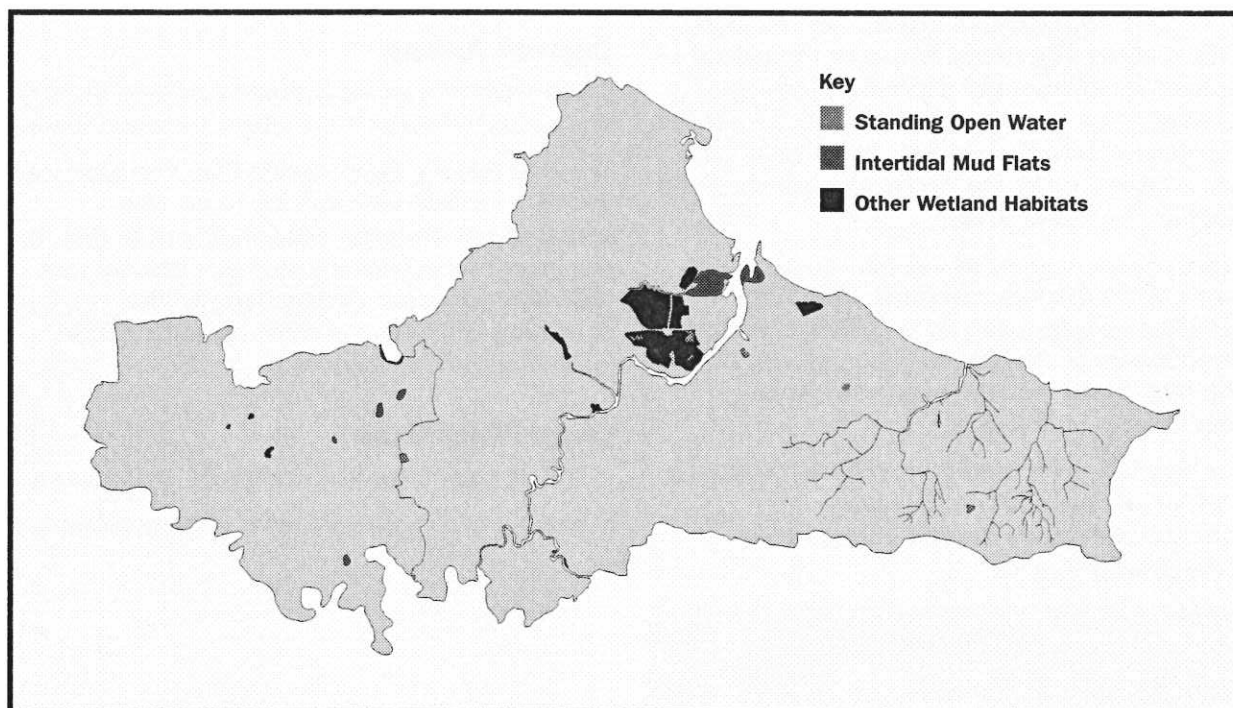
Reed warbler

Yellow wagtail

Reed bunting

Gadwall

Distribution of Wetland Habitat



Rivers and Streams

Habitat

This encompasses any flowing waters such as major rivers and their tributaries and coastal gills.

Rivers and streams are dynamic systems, which exhibit a mosaic of features and support a diverse range of plants and animals. Riffles, pools, shingle beds and sand bars are important for a range of mammals, birds and invertebrates. The coastal gills are associated with wooded valleys, which are often the only examples of semi-natural broadleaved woodland in areas which have been cleared of trees in favour of agriculture.

There are few rivers which have not been physically altered by man, many having been canalised or otherwise modified to reduce flood risk. This, and removal of tree cover along the banks, results in bank erosion and altered seasonal flow patterns.

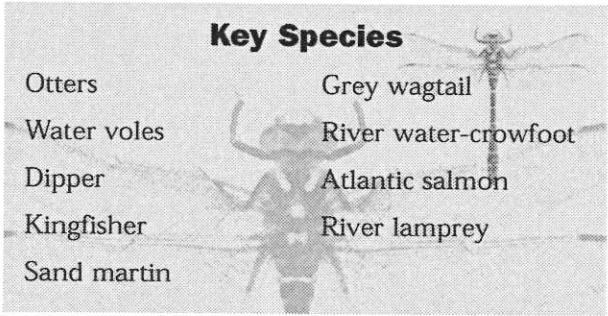
Current Status

On a national scale, the nature of rivers and streams varies considerably, depending upon a variety of factors, including water quality and underlying geology. This, in turn, affects the species present. In upland areas there is likely to be a diverse invertebrate fauna including mayflies, caddisflies and stoneflies, and game fish such as salmon and trout. In lowland, nutrient-rich areas, higher plants and coarse fish, such as chub and dace, are found.

In the Tees Valley, there is one major river to which the name of the area is due, the River Tees, another which skirts the south of the county, the River Leven, and a number of coastal gills.

The source of the River Tees is on Crossfell, in the Pennines, 893km above sea level, and it flows for approximately 160km to the North Sea. The Tees has played a very important part in the history and development of the area, having been a focal point for industrial development since the early 19th century. This had devastating effects on the water quality of the river and the previously abundant migratory fish disappeared. Since the 1970's various organisations have been working to cut the levels of pollutants, and in recent years salmon have returned due to considerable improvements in water quality.

Key Species

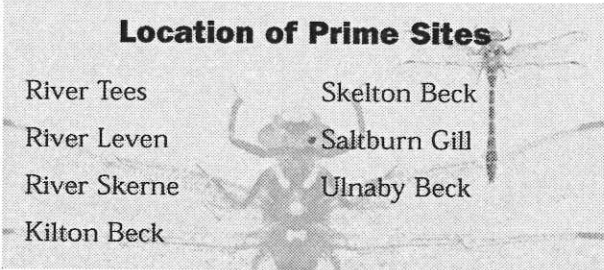


| | |
|-------------|----------------------|
| Otters | Grey wagtail |
| Water voles | River water-crowfoot |
| Dipper | Atlantic salmon |
| Kingfisher | River lamprey |
| Sand martin | |

Current Factors Affecting the Habitat

- Pollution, including eutrophication and acidification.
- Excessive ground and surface water extraction.
- Construction of the Tees Barrage.
- Water transfer schemes between rivers.
- Insensitive land drainage and flood defence works.
- Inappropriate bank management, including overgrazing.
- Invasive plant and animal species - Himalayan balsam and giant hogweed.
- Development within the floodplain.

Location of Prime Sites



| | |
|--------------|---------------|
| River Tees | Skelton Beck |
| River Leven | Saltburn Gill |
| River Skerne | Ulnaby Beck |
| Kilton Beck | |

Current Action

Local Environment Agency Plan.

Tees Valley area Otter Survey (commenced April 1998).

Water vole surveys (commenced Spring/Summer 1997).

Northumbria Otters and Rivers Project

The construction of the Tees Barrage has had impacts on the nature of the river, slowing down the flow.

Local Objectives

- Protect and enhance the areas of habitat alongside rivers for wildlife.
- Monitor and improve water quality along all watercourses.





Rivers and Streams - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Water vole

European otter

Dipper

Kingfisher

Sand martin

Grey wagtail

River water-crowfoot

River lamprey/Sea lamprey

Unimproved/Semi-improved Neutral Grassland

Habitat

Most grassland areas in the UK have been modified by addition of fertilisers and reseeded to produce a more productive sward for grazing livestock. Unimproved grassland is that which has not been modified and therefore contains a diverse and often colourful mix of herbaceous and grass species. This category covers a wide range of communities, found on soils of neutral pH, the composition of which is determined by the soil type, drainage and management. They are managed mainly as traditional haymeadows or pastures and are high in species diversity. Unimproved grassland may also have areas of scrub and occasional trees, and frequently exhibits local flushed areas.

Current Status

Unimproved grassland is a rare and threatened habitat estimated to cover less than 15,000ha of the UK. Their significance for biodiversity lies in the variety of plants and invertebrates which inhabit unimproved grasslands. This diversity is reduced if the fertility of the grassland is increased, as a few highly competitive grass species will become dominant.

In the Tees Valley only 308ha or 0.53% of the land area is unimproved, a much larger area - 4,538ha is covered by semi-improved grassland, the majority of which is of lower botanical significance. Locally, species-rich unimproved neutral grassland is usually found as small areas of remnant habitat on the periphery of arable fields, or on areas difficult to cultivate.

Prior to World War II, most farms in the area had fields of species-rich unimproved neutral grassland, however many were modified during and after the war to meet increased demand for productive land.

The main sites are around the Leven and Kilton Beck Valleys, generally on steep slopes leading down to small becks along woodland edges. Other sites include isolated fields where traditional management techniques are deliberately employed.

These habitats are very threatened as the planning control system does not prevent the application of agrochemicals or grazing of livestock which may eventually lead to an elevated nutrient status, reducing the species diversity.

Key Species

The species present depend very much on the soil, drainage and management of the area.

Drier areas

Crested dog's tail

Sweet vernal grass

Red fescue

Wetter areas

Yorkshire fog

Meadow foxtail

Cuckoo flower

Marshy areas

Rushes

Sedges

Flote-grass

Current Factors Affecting the Habitat

- Agricultural intensification - addition of agrochemicals, increases in grazing intensity
- Abandonment and neglect, enabling encroachment of scrub.

Location of Prime Sites

Dunsdale Wood
Grassland

Hobdale Terrace

Lumpsey Mine

Oneham's Pasture

Saltburn Grange
Grassland

Plum Tree Farm
Pasture

Castle Hill

Spell Close Wood

Gravel Hole

Hartburn Beck

High Farm, Thornton

Ingleby Hill

Newsham Banks

Saltergill Beck

Whitton Bridge
Pasture

Pawton Hill Farm

Redworth Grassland

Cleveland Street
Grassland

Goosepool Beck
Meadow

Firth Moor Grasslands

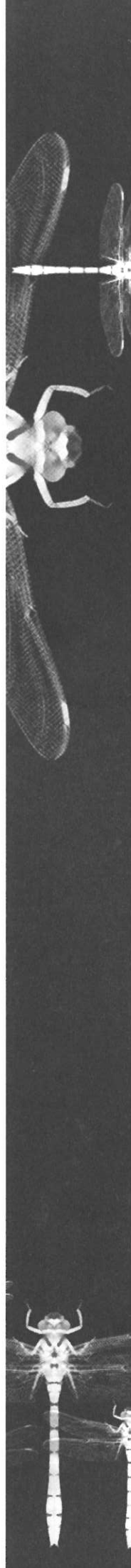
Current Action

Deliberate use of traditional management on some sites.

Local Objectives

Maintain extent & quality of species - rich neutral grassland sites in the Tees Valley, restore degraded neutral grasslands to buffer these sites and restore the range of neutral grassland.

- Protect & enhance existing area of species-rich neutral grassland.
- Promote & encourage use of traditional management techniques.



Acid Grassland

Habitat

Acid grassland is found in both upland and lowland areas. There are large expanses of acid grassland in upland areas. Lowland acid grassland is a rare habitat and so is a reservoir for rare species. This Plan covers both unimproved and semi-improved acidic grasslands. These habitats are acidic in nature due to the underlying geology - acidic rock such as sandstones, acid igneous rocks and superficial deposits of sands and gravels. The habitat is typically low in nutrients and therefore has a highly specialised plant community.

Current Status

Upland acid grasslands are one of the most extensive habitat types in Britain. There are approximately 1 200 000ha of acid grassland in the uplands of Britain, although many of these have a limited biodiversity interest. The lowland acid grassland resource is much smaller - 30,000ha in Britain, and provides an important reservoir of rare species.

Acid grassland occupies only 1.23% of the land area of the Tees Valley, 719ha, most of which is of local nature conservation importance. This habitat is confined to Redcar and Cleveland district, mainly on the moorland edge. The acid grasslands which occur in this area tend to occur on moorland, although some have developed as a result of ironstone workings. Acid grasslands found locally tend to be unenclosed and occur on soils with a pH of less than 6. These conditions result in a species-poor community composed of highly specialised flora. Acid grassland also provides good habitat for various invertebrate species.

Current Factors Affecting the Habitat

- Agricultural intensification, especially fertilisation, ploughing and drainage.
- Invasion by bracken or heather.
- Inappropriate grazing regimes resulting in overgrazing or undergrazing and hence invasion by coarse grasses and scrub.
- Unsympathetic reclamation techniques ie. topsoiling and sowing of an amenity grassland.
- Raise awareness of appropriate management, such as grazing regimes.

Location of Prime Sites

Patches on moorland between Newton under Roseberry and Scaling in the south of the county.

Parts of Eston Moor

Cliff Rigg (near Great Ayton) - disused ironstone workings

Merry's Wood Grassland (this is actually between acid and mesotrophic)

Current Action

Due to the limited area of the lowland acid grassland resource, these habitats tend to be managed as a component of a larger mosaic of habitats.

Upland acid grasslands in the Tees Valley are mainly in the North Yorkshire Moors National Park, therefore management of these areas is governed by the North Yorkshire Moors National Park Plan.

Local Objectives

- Maintain and enhance all areas of acid grasslands.
- Restore areas of degraded acid grassland, especially adjacent to existing areas of importance.

Key Species

Dry Areas

Common bent

Sheep's fescue

Early hair-grass

Heath bedstraw

Sheep's sorrell

Common tormentil

Wet Areas

Brown bent

Purple moor grass

Heath rush

Mat grasses

Sedges

Marsh lousewort



Calcareous Grassland

Habitat

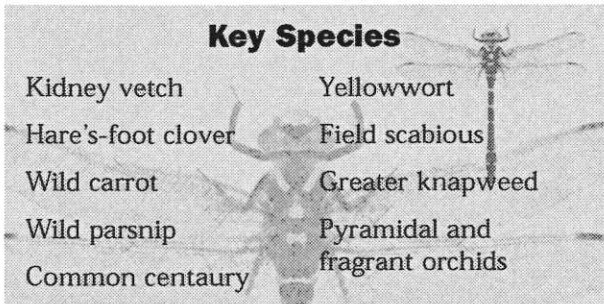
In the UK these communities develop on shallow lime-rich soils, derived from chalk or limestone, or occasionally on calcareous glacial material. They are particularly species-rich in many instances, and include both rare and widespread grasses, sedges and herbs. 13 different types of calcareous grassland are recognised, ranging from coastal to upland and montane grasslands, some of which occur within SSSIs. Calcareous grasslands are also rich in invertebrate fauna and include many protected species.

Current Status

There are approximately 40,000-50,000ha of calcareous grassland in the UK, which is patchily distributed throughout the country.

The Tees Valley has no genuine calcareous grassland, although lime-rich communities have developed as a result of slag deposition from iron and steel making industries. This results in a distinctive, species-rich community with a large proportion of bare ground, often of a rubbly texture. The area of these lime-rich communities in the Tees Valley covers only 15ha, and is not significant on a national level, although it is a feature of local interest. The calcareous waste flora which is present in the Tees Valley is not really comparable to genuine species rich calcareous grassland.

Key Species

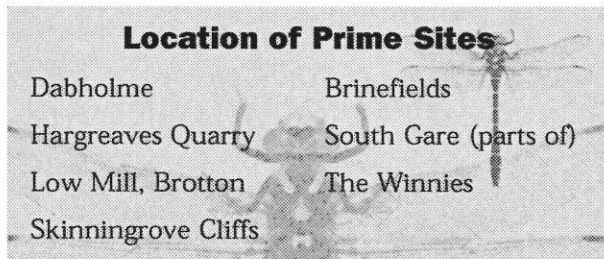


| | |
|--------------------|-----------------------------------|
| Kidney vetch | Yellowwort |
| Hare's-foot clover | Field scabious |
| Wild carrot | Greater knapweed |
| Wild parsnip | Pyramidal and fragrant orchids |
| Common centaury | |

Current Factors Affecting the Habitat

- Lack of management, resulting in development of species-poor, rank grassland, and/or scrub encroachment, as a result of neglect.
- Overgrazing which reduces species richness.
- Agricultural intensification - addition of agrochemicals, ploughing and reseedling.
- Industrial and urban development - particularly the tipping or infilling of old industrial sites, where slag based vegetation has established naturally after the cessation of working.
- The lack of new industrial developments means that there will be a shortage of such sites in the future.

Location of Prime Sites



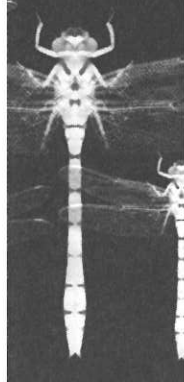
| | |
|---------------------|-----------------------|
| Dabholme | Brinefields |
| Hargreaves Quarry | South Gare (parts of) |
| Low Mill, Brotton | The Winnies |
| Skinningrove Cliffs | |

Current Action

Generally little action although some are managed for the benefit of wildlife.

Local Objectives

- Maintain and protect areas of slag-based vegetation in the county.
- Encourage appropriate management and protection of prime sites.
- Further research and study of slag-based vegetation is needed.





Unimproved Grassland - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Grey partridge

Kestrel

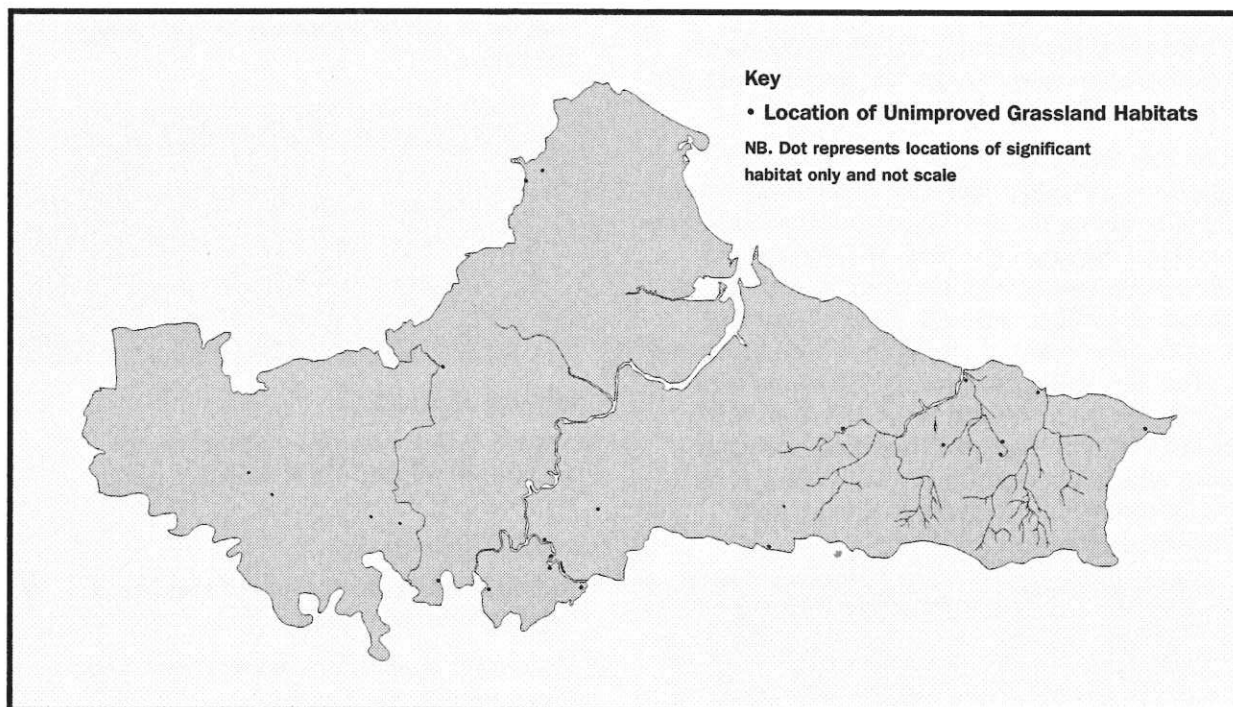
Tree pipit

Slow worm

Meadow pipit

Northern brown argus

Distribution of Unimproved Grassland



Arable/Improved Grassland

Habitat

Improved grassland is that which has been modified by addition of fertilisers or sown with grass seed mixes specifically for agriculture or recreation. These areas tend to either be grazed or cut on a regular basis, and addition of fertilisers stimulates the growth of competitive grasses, resulting in low species diversity. This Habitat Action Plan deals specifically with grasslands used for agricultural purposes. Those used for recreation, 'Amenity grasslands', are included in the Urban Habitats section.

Arable fields are generally low in biodiversity, although they may provide cover for a few species, and therefore no habitat action plan has been prepared for these areas.

Boundary features, such as hedgerows and dry stone walls, do provide a valuable reservoir for wildlife in intensively managed landscapes and these are dealt with separately.

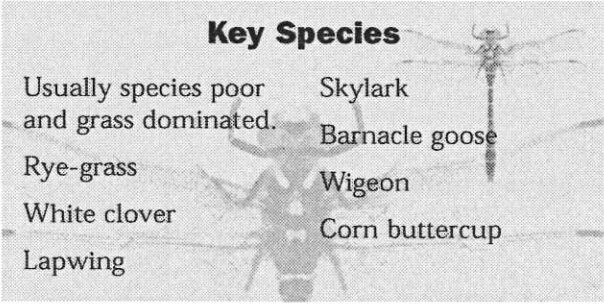
Current Status

The majority of grassland in the UK is improved, the total area having increased by 90% in the last 50 years, usually at the expense of unimproved, highly diverse grassland.

Improved grassland and arable land covers the majority of land in the Tees Valley, a total of 28,501ha, which constitutes 48.68% of the old Cleveland county. As the survey data do not distinguish between improved grassland and arable land the exact area of improved grassland is unclear.

Improved grassland tends to be of low nature conservation value, with low diversity of plant and invertebrate species, and is usually only temporary, being sown as part of an arable crop rotation. In some areas it may be important as a winter feeding area for waterfowl, including some internationally important species, such as the barnacle goose (*Branta leucopsis*) and wigeon (*Anas penelope*). Ground nesting birds may also use these areas if machine use is infrequent and stocking densities are low.

Key Species

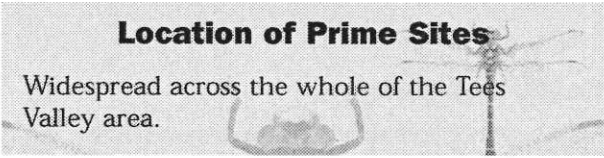


| | |
|---|----------------|
| Usually species poor and grass dominated. | Skylark |
| Rye-grass | Barnacle goose |
| White clover | Wigeon |
| Lapwing | Corn buttercup |

Current Factors Affecting the Habitat

- More land being used for arable land and improved grassland at the expense of semi-natural habitats.
- Use of agrochemicals and fertilisers.

Location of Prime Sites



Widespread across the whole of the Tees Valley area.

Current Action

Some landowners are being encouraged to manage less intensively for the benefit of wildlife by organisations such as FWAG.





Arable/Improved Grassland - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Brown hare

Stoat

Weasel

Lapwing

Pied wagtail

Turtle dove

Barn owl

Tawny owl

Skylark

Swallow

Greenfinch

Yellowhammer

Corn bunting

Corn buttercup

Local Objectives

- Encourage and educate farmers and other people on environmentally sensitive management methods.
- Encourage landowners and farmers to provide havens for wildlife around managed fields, possibly by enhancing boundary features.

Ancient and/or Species Rich Hedgerows & Scrub

Habitat

Ancient hedgerows are particularly important for wildlife, resembling woodland edge and scrub habitats. Ancient hedgerows are those which were in existence prior to the Enclosure Acts – between 1720 and 1840 in Britain. They may contain relicts of ancient woodland and are species rich, with over 600 plant, 1,500 insect, 65 bird and 20 mammal species being known to live or feed in hedgerows. Species – rich hedgerows can be defined as those which contain 5 or more woody species in a 30 metre length. Hedges with particularly rich assemblages of herb species are also included.

Hedgerows perform a variety of functions, providing a living barrier to people and animals, and providing shelter for crops and stock. They also improve the visual appearance of the countryside for visitors and help to prevent soil erosion.

Hedgerows are an important habitat for around 47 species of conservation concern in the UK, 13 of which are globally threatened or rapidly declining.

They provide a source of food and cover for many other animals and birds, and also a refuge for plants which would otherwise be unable to exist in arable landscapes. Hedgerows may provide corridors, along which various species can travel between habitats. Hedgerows are often associated with areas of scrub, a habitat also included in this section.

Current Status

In the UK there are approximately 450,000km of hedgerows. Of this total, approximately 19,000km are estimated to be ancient and/or species-rich (UK Steering Group Report, 1995). The length of hedgerow in the Tees Valley is unknown, however a large number have been removed or fallen into disrepair in recent years.

Across the country there has been widespread loss of hedgerows since 1945, with grants available for hedgerow removal to enhance the productivity of agricultural land. This loss continues, although some protection has been given to ancient and/or species-rich hedgerows in recent years.

Dense scrub is a habitat type identified in the Tees Valley, occupying 95.89ha of the area. This

habitat is usually dominated by mature shrubs forming a dense canopy, hence restricting the development of ground flora. However it does provide an important roosting and feeding area for numerous bird species and supports a range of insects and other invertebrates.

Key Species

The species present depend very much on the soil, drainage and management of the area.

| | |
|----------------|---------------------------|
| Hawthorn | Willow tit |
| Blackthorn | Great tit |
| Common shrew | Tree sparrow |
| Dunnock | Goldfinch |
| Redstart | Linnet |
| Whitethroat | Bullfinch |
| Garden warbler | Ivy-leaved water crowfoot |
| Willow warbler | |

Current Factors Affecting the Habitat

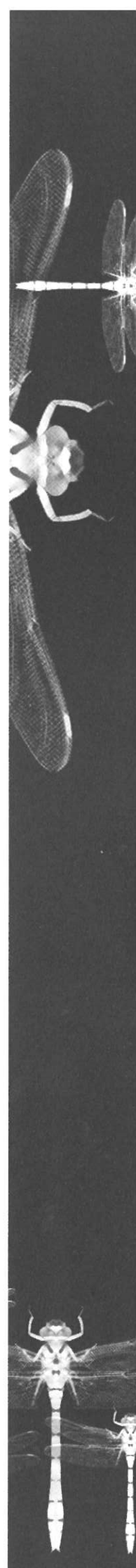
- Loss of management of hedgerows due to high labour costs and loss of traditional skills.
- Direct destruction due to agricultural intensification - increasing field sizes, addition of agrochemicals.
- Indirect destruction due to agricultural practices such as ploughing and applying chemicals too close to hedge bottoms.
- Unsympathetic cutting - too often or at the wrong time of year.
- Countryside Stewardship Scheme offers grants to farmers who plant or manage hedgerows.

Location of Prime Sites

| | |
|--------------------------|----------------------------|
| Cattersty Gill | Call Hill Hedge |
| Stainton Vale Farm Hedge | Low Coniscliffe, Tees Bank |

Current Action

Minimal at present.





Boundary Features - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Common shrew

Dunnock

Redstart

Lesser whitethroat

Whitethroat

Garden warbler

Willow warbler

Willow tit

Great tit

Tree sparrow

Goldfinch

Linnet

Bullfinch

Ivy-leaved water crowfoot

National Targets

- Halt the net loss of species-rich hedgerows through neglect and removal by the year 2000, and all loss of hedgerows which are both ancient and species-rich by the year 2005.

The loss of ancient species-rich hedgerows must be halted as soon as possible as they are irreplaceable.

- Achieve favourable management of 25% (about 47,500km) of species-rich and ancient hedges by 2000 and of 50% (about 95,000km) by 2005.

These targets are ambitious as most hedges are likely to need some management otherwise they will change beyond a reasonable state or become so open that they cease to be hedges.

- Maintain the overall numbers of hedgerow trees within each county or district at least at current levels, through ensuring a balanced age structure.

Generally hedgerow tree numbers have declined and there is a shortage of younger age classes.

Local Objectives

- Conduct a comprehensive survey to determine the extent of species rich hedgerows in the Tees Valley by 2000.
- Halt the loss of species-rich hedges.
- Seek to protect and enhance, by traditional management, all ancient and/or species-rich hedgerows.
- Raise awareness of the importance of boundary features as a habitat and encourage appropriate management. Encourage farmers and other landowners to leave a 'buffer strip' between hedges and crops or intensively managed areas.
- Maintain the number of hedgerow trees, ensuring a range of ages are present.

Dry Stone Walls

Habitat

Dry stone walls support a variety of plants, especially ferns, mosses and lichens. They are also used by invertebrates, reptiles, birds and mammals for food, breeding and cover.

The flora which a dry stone wall supports depends on its aspect and surrounding habitat, as well as the type of stone used.

Current Status

There are an estimated 112,500km of dry stone walls in England, 50% of which are described as derelict. The length of dry stone wall in the local area is not known.

Key Species

Lichens

Weasel

Adder

Mosses

Current Factors Affecting the Habitat

- Lack of management of dry stone walls as a result of loss of traditional skills.
- Direct destruction due to agricultural intensification - increasing field sizes, addition of agrochemicals.
- Air pollution can affect the species composition.

Location of Prime Sites

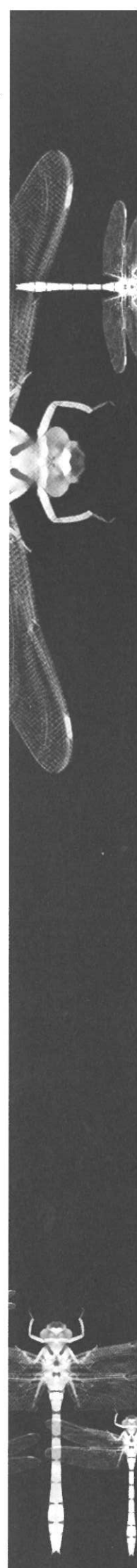
Most are within the NYMNP

Current Action

Minimal at present. Some craftsmen and voluntary conservation groups are keeping the tradition alive.

Local Objectives

- Determine the extent of these habitats in the Tees Valley.
- Maintain the quality and quantity of dry stone walls as boundary features.
- Improvement of dry stone walls which have fallen into disrepair.
- Raise awareness of the importance of dry stone walls as a habitat and encourage appropriate management.



Rivers and Streams

Habitat

This encompasses any flowing waters such as major rivers and their tributaries and coastal gills.

Rivers and streams are dynamic systems, which exhibit a mosaic of features and support a diverse range of plants and animals. Riffles, pools, shingle beds and sand bars are important for a range of mammals, birds and invertebrates. The coastal gills are associated with wooded valleys, which are often the only examples of semi-natural broadleaved woodland in areas which have been cleared of trees in favour of agriculture.

There are few rivers which have not been physically altered by man, many having been canalised or otherwise modified to reduce flood risk. This, and removal of tree cover along the banks, results in bank erosion and altered seasonal flow patterns.

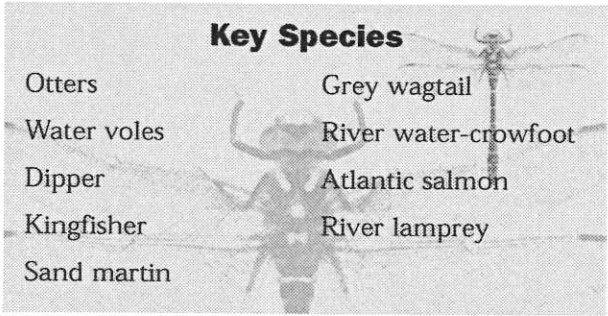
Current Status

On a national scale, the nature of rivers and streams varies considerably, depending upon a variety of factors, including water quality and underlying geology. This, in turn, affects the species present. In upland areas there is likely to be a diverse invertebrate fauna including mayflies, caddisflies and stoneflies, and game fish such as salmon and trout. In lowland, nutrient-rich areas, higher plants and coarse fish, such as chub and dace, are found.

In the Tees Valley, there is one major river to which the name of the area is due, the River Tees, another which skirts the south of the county, the River Leven, and a number of coastal gills.

The source of the River Tees is on Crossfell, in the Pennines, 893km above sea level, and it flows for approximately 160km to the North Sea. The Tees has played a very important part in the history and development of the area, having been a focal point for industrial development since the early 19th century. This had devastating effects on the water quality of the river and the previously abundant migratory fish disappeared. Since the 1970's various organisations have been working to cut the levels of pollutants, and in recent years salmon have returned due to considerable improvements in water quality.

Key Species

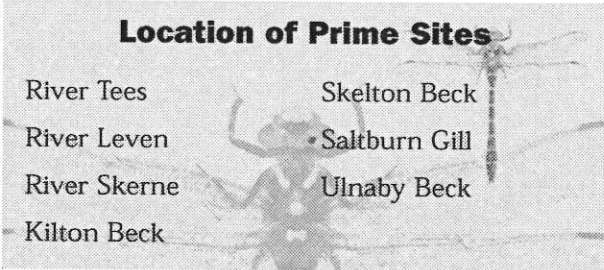


| | |
|-------------|----------------------|
| Otters | Grey wagtail |
| Water voles | River water-crowfoot |
| Dipper | Atlantic salmon |
| Kingfisher | River lamprey |
| Sand martin | |

Current Factors Affecting the Habitat

- Pollution, including eutrophication and acidification.
- Excessive ground and surface water extraction.
- Construction of the Tees Barrage.
- Water transfer schemes between rivers.
- Insensitive land drainage and flood defence works.
- Inappropriate bank management, including overgrazing.
- Invasive plant and animal species - Himalayan balsam and giant hogweed.
- Development within the floodplain.

Location of Prime Sites



| | |
|--------------|---------------|
| River Tees | Skelton Beck |
| River Leven | Saltburn Gill |
| River Skerne | Ulnaby Beck |
| Kilton Beck | |

Current Action

Local Environment Agency Plan.

Tees Valley area Otter Survey (commenced April 1998).

Water vole surveys (commenced Spring/Summer 1997).

Northumbria Otters and Rivers Project

The construction of the Tees Barrage has had impacts on the nature of the river, slowing down the flow.

Local Objectives

- Protect and enhance the areas of habitat alongside rivers for wildlife.
- Monitor and improve water quality along all watercourses.





Rivers and Streams - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Water vole

European otter

Dipper

Kingfisher

Sand martin

Grey wagtail

River water-crowfoot

River lamprey/Sea lamprey

Unimproved/Semi-improved Neutral Grassland

Habitat

Most grassland areas in the UK have been modified by addition of fertilisers and reseeded to produce a more productive sward for grazing livestock. Unimproved grassland is that which has not been modified and therefore contains a diverse and often colourful mix of herbaceous and grass species. This category covers a wide range of communities, found on soils of neutral pH, the composition of which is determined by the soil type, drainage and management. They are managed mainly as traditional haymeadows or pastures and are high in species diversity. Unimproved grassland may also have areas of scrub and occasional trees, and frequently exhibits local flushed areas.

Current Status

Unimproved grassland is a rare and threatened habitat estimated to cover less than 15,000ha of the UK. Their significance for biodiversity lies in the variety of plants and invertebrates which inhabit unimproved grasslands. This diversity is reduced if the fertility of the grassland is increased, as a few highly competitive grass species will become dominant.

In the Tees Valley only 308ha or 0.53% of the land area is unimproved, a much larger area - 4,538ha is covered by semi-improved grassland, the majority of which is of lower botanical significance. Locally, species-rich unimproved neutral grassland is usually found as small areas of remnant habitat on the periphery of arable fields, or on areas difficult to cultivate.

Prior to World War II, most farms in the area had fields of species-rich unimproved neutral grassland, however many were modified during and after the war to meet increased demand for productive land.

The main sites are around the Leven and Kilton Beck Valleys, generally on steep slopes leading down to small becks along woodland edges. Other sites include isolated fields where traditional management techniques are deliberately employed.

These habitats are very threatened as the planning control system does not prevent the application of agrochemicals or grazing of livestock which may eventually lead to an elevated nutrient status, reducing the species diversity.

Key Species

The species present depend very much on the soil, drainage and management of the area.

Drier areas

Crested dog's tail

Sweet vernal grass

Red fescue

Wetter areas

Yorkshire fog

Meadow foxtail

Cuckoo flower

Marshy areas

Rushes

Sedges

Flote-grass

Current Factors Affecting the Habitat

- Agricultural intensification - addition of agrochemicals, increases in grazing intensity
- Abandonment and neglect, enabling encroachment of scrub.

Location of Prime Sites

Dunsdale Wood
Grassland

Hobdale Terrace

Lumpsey Mine

Oneham's Pasture

Saltburn Grange
Grassland

Plum Tree Farm
Pasture

Castle Hill

Spell Close Wood

Gravel Hole

Hartburn Beck

High Farm, Thornton

Ingleby Hill

Newsham Banks

Saltergill Beck

Whitton Bridge
Pasture

Pawton Hill Farm

Redworth Grassland

Cleveland Street
Grassland

Goosepool Beck
Meadow

Firth Moor Grasslands

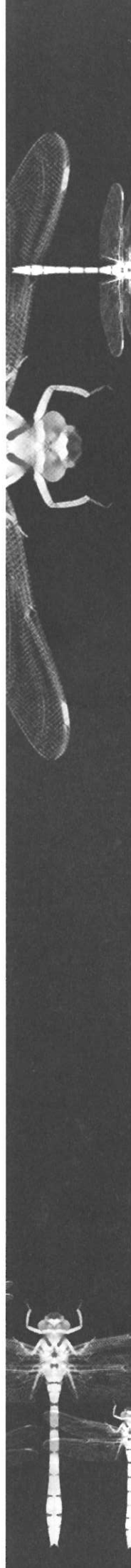
Current Action

Deliberate use of traditional management on some sites.

Local Objectives

Maintain extent & quality of species - rich neutral grassland sites in the Tees Valley, restore degraded neutral grasslands to buffer these sites and restore the range of neutral grassland.

- Protect & enhance existing area of species-rich neutral grassland.
- Promote & encourage use of traditional management techniques.



Acid Grassland

Habitat

Acid grassland is found in both upland and lowland areas. There are large expanses of acid grassland in upland areas. Lowland acid grassland is a rare habitat and so is a reservoir for rare species. This Plan covers both unimproved and semi-improved acidic grasslands. These habitats are acidic in nature due to the underlying geology - acidic rock such as sandstones, acid igneous rocks and superficial deposits of sands and gravels. The habitat is typically low in nutrients and therefore has a highly specialised plant community.

Current Status

Upland acid grasslands are one of the most extensive habitat types in Britain. There are approximately 1 200 000ha of acid grassland in the uplands of Britain, although many of these have a limited biodiversity interest. The lowland acid grassland resource is much smaller - 30,000ha in Britain, and provides an important reservoir of rare species.

Acid grassland occupies only 1.23% of the land area of the Tees Valley, 719ha, most of which is of local nature conservation importance. This habitat is confined to Redcar and Cleveland district, mainly on the moorland edge. The acid grasslands which occur in this area tend to occur on moorland, although some have developed as a result of ironstone workings. Acid grasslands found locally tend to be unenclosed and occur on soils with a pH of less than 6. These conditions result in a species-poor community composed of highly specialised flora. Acid grassland also provides good habitat for various invertebrate species.

Current Factors Affecting the Habitat

- Agricultural intensification, especially fertilisation, ploughing and drainage.
- Invasion by bracken or heather.
- Inappropriate grazing regimes resulting in overgrazing or undergrazing and hence invasion by coarse grasses and scrub.
- Unsympathetic reclamation techniques ie. topsoiling and sowing of an amenity grassland.
- Raise awareness of appropriate management, such as grazing regimes.

Location of Prime Sites

Patches on moorland between Newton under Roseberry and Scaling in the south of the county.

Parts of Eston Moor

Cliff Rigg (near Great Ayton) - disused ironstone workings

Merry's Wood Grassland (this is actually between acid and mesotrophic)

Current Action

Due to the limited area of the lowland acid grassland resource, these habitats tend to be managed as a component of a larger mosaic of habitats.

Upland acid grasslands in the Tees Valley are mainly in the North Yorkshire Moors National Park, therefore management of these areas is governed by the North Yorkshire Moors National Park Plan.

Local Objectives

- Maintain and enhance all areas of acid grasslands.
- Restore areas of degraded acid grassland, especially adjacent to existing areas of importance.

Key Species

Dry Areas

Common bent

Sheep's fescue

Early hair-grass

Heath bedstraw

Sheep's sorrell

Common tormentil

Wet Areas

Brown bent

Purple moor grass

Heath rush

Mat grasses

Sedges

Marsh lousewort



Calcareous Grassland

Habitat

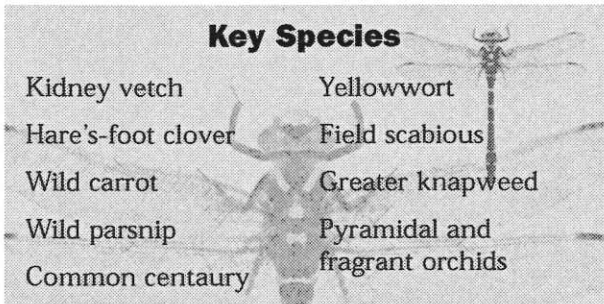
In the UK these communities develop on shallow lime-rich soils, derived from chalk or limestone, or occasionally on calcareous glacial material. They are particularly species-rich in many instances, and include both rare and widespread grasses, sedges and herbs. 13 different types of calcareous grassland are recognised, ranging from coastal to upland and montane grasslands, some of which occur within SSSIs. Calcareous grasslands are also rich in invertebrate fauna and include many protected species.

Current Status

There are approximately 40,000-50,000ha of calcareous grassland in the UK, which is patchily distributed throughout the country.

The Tees Valley has no genuine calcareous grassland, although lime-rich communities have developed as a result of slag deposition from iron and steel making industries. This results in a distinctive, species-rich community with a large proportion of bare ground, often of a rubbly texture. The area of these lime-rich communities in the Tees Valley covers only 15ha, and is not significant on a national level, although it is a feature of local interest. The calcareous waste flora which is present in the Tees Valley is not really comparable to genuine species rich calcareous grassland.

Key Species

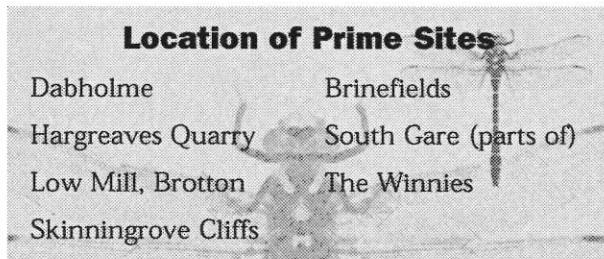


| | |
|--------------------|-----------------------------------|
| Kidney vetch | Yellowwort |
| Hare's-foot clover | Field scabious |
| Wild carrot | Greater knapweed |
| Wild parsnip | Pyramidal and fragrant orchids |
| Common centaury | |

Current Factors Affecting the Habitat

- Lack of management, resulting in development of species-poor, rank grassland, and/or scrub encroachment, as a result of neglect.
- Overgrazing which reduces species richness.
- Agricultural intensification - addition of agrochemicals, ploughing and reseedling.
- Industrial and urban development - particularly the tipping or infilling of old industrial sites, where slag based vegetation has established naturally after the cessation of working.
- The lack of new industrial developments means that there will be a shortage of such sites in the future.

Location of Prime Sites



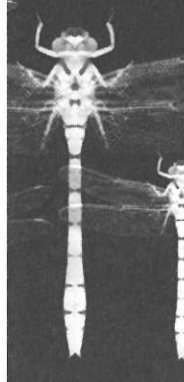
| | |
|---------------------|-----------------------|
| Dabholme | Brinefields |
| Hargreaves Quarry | South Gare (parts of) |
| Low Mill, Brotton | The Winnies |
| Skinningrove Cliffs | |

Current Action

Generally little action although some are managed for the benefit of wildlife.

Local Objectives

- Maintain and protect areas of slag-based vegetation in the county.
- Encourage appropriate management and protection of prime sites.
- Further research and study of slag-based vegetation is needed.





Unimproved Grassland - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Grey partridge

Kestrel

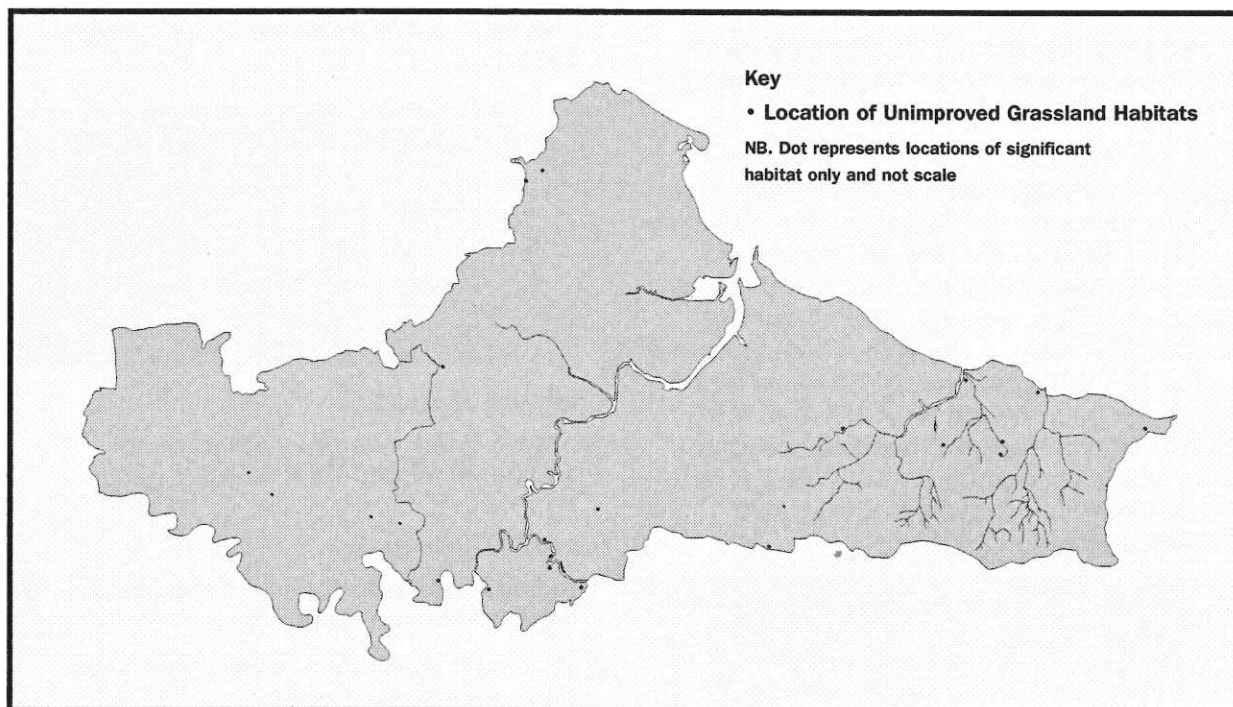
Tree pipit

Slow worm

Meadow pipit

Northern brown argus

Distribution of Unimproved Grassland



Arable/Improved Grassland

Habitat

Improved grassland is that which has been modified by addition of fertilisers or sown with grass seed mixes specifically for agriculture or recreation. These areas tend to either be grazed or cut on a regular basis, and addition of fertilisers stimulates the growth of competitive grasses, resulting in low species diversity. This Habitat Action Plan deals specifically with grasslands used for agricultural purposes. Those used for recreation, 'Amenity grasslands', are included in the Urban Habitats section.

Arable fields are generally low in biodiversity, although they may provide cover for a few species, and therefore no habitat action plan has been prepared for these areas.

Boundary features, such as hedgerows and dry stone walls, do provide a valuable reservoir for wildlife in intensively managed landscapes and these are dealt with separately.

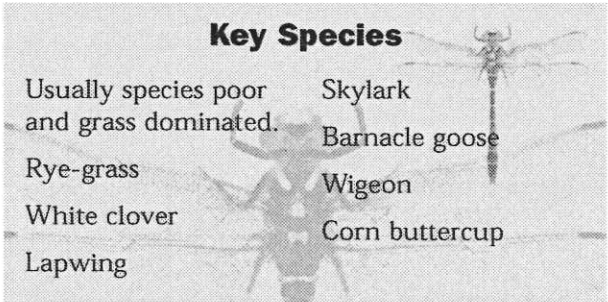
Current Status

The majority of grassland in the UK is improved, the total area having increased by 90% in the last 50 years, usually at the expense of unimproved, highly diverse grassland.

Improved grassland and arable land covers the majority of land in the Tees Valley, a total of 28,501ha, which constitutes 48.68% of the old Cleveland county. As the survey data do not distinguish between improved grassland and arable land the exact area of improved grassland is unclear.

Improved grassland tends to be of low nature conservation value, with low diversity of plant and invertebrate species, and is usually only temporary, being sown as part of an arable crop rotation. In some areas it may be important as a winter feeding area for waterfowl, including some internationally important species, such as the barnacle goose (*Branta leucopsis*) and wigeon (*Anas penelope*). Ground nesting birds may also use these areas if machine use is infrequent and stocking densities are low.

Key Species

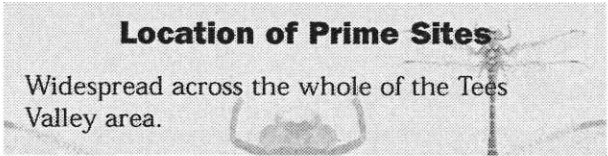


| | |
|---|----------------|
| Usually species poor and grass dominated. | Skylark |
| Rye-grass | Barnacle goose |
| White clover | Wigeon |
| Lapwing | Corn buttercup |

Current Factors Affecting the Habitat

- More land being used for arable land and improved grassland at the expense of semi-natural habitats.
- Use of agrochemicals and fertilisers.

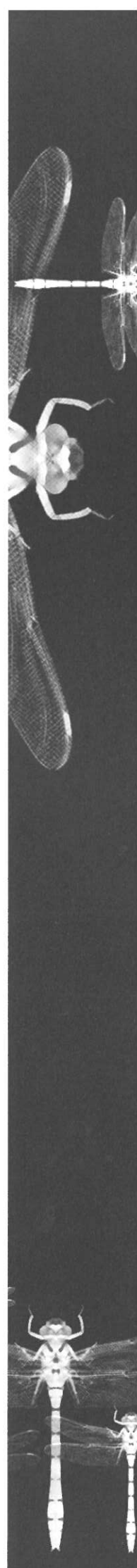
Location of Prime Sites



Widespread across the whole of the Tees Valley area.

Current Action

Some landowners are being encouraged to manage less intensively for the benefit of wildlife by organisations such as FWAG.





Arable/Improved Grassland - Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Brown hare

Stoat

Weasel

Lapwing

Pied wagtail

Turtle dove

Barn owl

Tawny owl

Skylark

Swallow

Greenfinch

Yellowhammer

Corn bunting

Corn buttercup

Local Objectives

- Encourage and educate farmers and other people on environmentally sensitive management methods.
- Encourage landowners and farmers to provide havens for wildlife around managed fields, possibly by enhancing boundary features.

Ancient and/or Species Rich Hedgerows & Scrub

Habitat

Ancient hedgerows are particularly important for wildlife, resembling woodland edge and scrub habitats. Ancient hedgerows are those which were in existence prior to the Enclosure Acts – between 1720 and 1840 in Britain. They may contain relicts of ancient woodland and are species rich, with over 600 plant, 1,500 insect, 65 bird and 20 mammal species being known to live or feed in hedgerows. Species – rich hedgerows can be defined as those which contain 5 or more woody species in a 30 metre length. Hedges with particularly rich assemblages of herb species are also included.

Hedgerows perform a variety of functions, providing a living barrier to people and animals, and providing shelter for crops and stock. They also improve the visual appearance of the countryside for visitors and help to prevent soil erosion.

Hedgerows are an important habitat for around 47 species of conservation concern in the UK, 13 of which are globally threatened or rapidly declining.

They provide a source of food and cover for many other animals and birds, and also a refuge for plants which would otherwise be unable to exist in arable landscapes. Hedgerows may provide corridors, along which various species can travel between habitats. Hedgerows are often associated with areas of scrub, a habitat also included in this section.

Current Status

In the UK there are approximately 450,000km of hedgerows. Of this total, approximately 19,000km are estimated to be ancient and/or species-rich (UK Steering Group Report, 1995). The length of hedgerow in the Tees Valley is unknown, however a large number have been removed or fallen into disrepair in recent years.

Across the country there has been widespread loss of hedgerows since 1945, with grants available for hedgerow removal to enhance the productivity of agricultural land. This loss continues, although some protection has been given to ancient and/or species-rich hedgerows in recent years.

Dense scrub is a habitat type identified in the Tees Valley, occupying 95.89ha of the area. This

habitat is usually dominated by mature shrubs forming a dense canopy, hence restricting the development of ground flora. However it does provide an important roosting and feeding area for numerous bird species and supports a range of insects and other invertebrates.

Key Species

The species present depend very much on the soil, drainage and management of the area.

| | |
|----------------|---------------------------|
| Hawthorn | Willow tit |
| Blackthorn | Great tit |
| Common shrew | Tree sparrow |
| Dunnock | Goldfinch |
| Redstart | Linnet |
| Whitethroat | Bullfinch |
| Garden warbler | Ivy-leaved water crowfoot |
| Willow warbler | |

Current Factors Affecting the Habitat

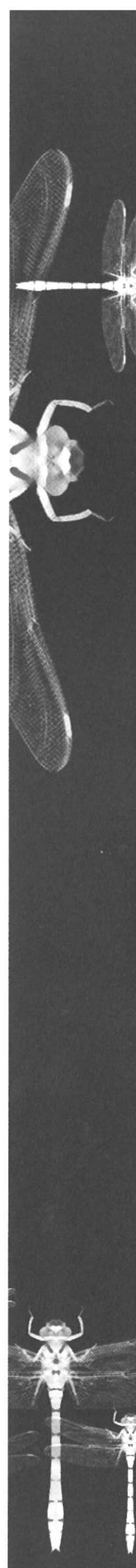
- Loss of management of hedgerows due to high labour costs and loss of traditional skills.
- Direct destruction due to agricultural intensification - increasing field sizes, addition of agrochemicals.
- Indirect destruction due to agricultural practices such as ploughing and applying chemicals too close to hedge bottoms.
- Unsympathetic cutting - too often or at the wrong time of year.
- Countryside Stewardship Scheme offers grants to farmers who plant or manage hedgerows.

Location of Prime Sites

| | |
|--------------------------|----------------------------|
| Cattersty Gill | Call Hill Hedge |
| Stainton Vale Farm Hedge | Low Coniscliffe, Tees Bank |

Current Action

Minimal at present.





Boundary Features - Tees Valley Species Target List

The following species are listed in the UK Biodiversity Action Plan and occur in the local area. Details of their status can be found in the audit tables.

Common shrew

Dunnock

Redstart

Lesser whitethroat

Whitethroat

Garden warbler

Willow warbler

Willow tit

Great tit

Tree sparrow

Goldfinch

Linnet

Bullfinch

Ivy-leaved water crowfoot

National Targets

- Halt the net loss of species-rich hedgerows through neglect and removal by the year 2000, and all loss of hedgerows which are both ancient and species-rich by the year 2005.

The loss of ancient species-rich hedgerows must be halted as soon as possible as they are irreplaceable.

- Achieve favourable management of 25% (about 47,500km) of species-rich and ancient hedges by 2000 and of 50% (about 95,000km) by 2005.

These targets are ambitious as most hedges are likely to need some management otherwise they will change beyond a reasonable state or become so open that they cease to be hedges.

- Maintain the overall numbers of hedgerow trees within each county or district at least at current levels, through ensuring a balanced age structure.

Generally hedgerow tree numbers have declined and there is a shortage of younger age classes.

Local Objectives

- Conduct a comprehensive survey to determine the extent of species rich hedgerows in the Tees Valley by 2000.
- Halt the loss of species-rich hedges.
- Seek to protect and enhance, by traditional management, all ancient and/or species-rich hedgerows.
- Raise awareness of the importance of boundary features as a habitat and encourage appropriate management. Encourage farmers and other landowners to leave a 'buffer strip' between hedges and crops or intensively managed areas.
- Maintain the number of hedgerow trees, ensuring a range of ages are present.

Dry Stone Walls

Habitat

Dry stone walls support a variety of plants, especially ferns, mosses and lichens. They are also used by invertebrates, reptiles, birds and mammals for food, breeding and cover.

The flora which a dry stone wall supports depends on its aspect and surrounding habitat, as well as the type of stone used.

Current Status

There are an estimated 112,500km of dry stone walls in England, 50% of which are described as derelict. The length of dry stone wall in the local area is not known.

Key Species

Lichens

Weasel

Adder

Mosses

Current Factors Affecting the Habitat

- Lack of management of dry stone walls as a result of loss of traditional skills.
- Direct destruction due to agricultural intensification - increasing field sizes, addition of agrochemicals.
- Air pollution can affect the species composition.

Location of Prime Sites

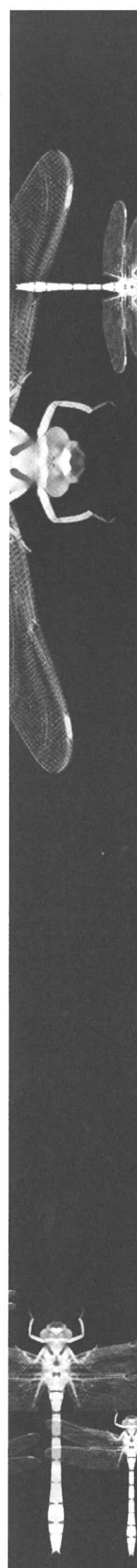
Most are within the NYMNP

Current Action

Minimal at present. Some craftsmen and voluntary conservation groups are keeping the tradition alive.

Local Objectives

- Determine the extent of these habitats in the Tees Valley.
- Maintain the quality and quantity of dry stone walls as boundary features.
- Improvement of dry stone walls which have fallen into disrepair.
- Raise awareness of the importance of dry stone walls as a habitat and encourage appropriate management.



Species Action Plans

Introduction

All species are of value, contributing to the variety of life on earth, however, some also serve to meet human needs for food, biological pest control and medicine, etc. The biodiversity around us is often of scientific or cultural importance and of course has its own intrinsic value. Considering the losses of species which have occurred over recent centuries action is necessary now to prevent further loss. All species are interdependent, each making their own contribution to the delicate balance of nature, so the loss of one species will have implications for numerous others, including ourselves. By allowing the depletion of the biodiversity around us, we are losing our own life support system.



Criteria for Species Selection

A list of species was produced using the following criteria;

1. Any species from the UK Steering Group Long List which occur in the Tees Valley:

- Threatened endemic and globally threatened species
- Species where the UK has over 25% of the world or appropriate biogeographical population
- Species where numbers or range have declined by over 25% in the last 25 years
- In some instances where the species is found in fewer than 15 ten km squares in the UK
- Species which are listed in the EC Birds or Habitats Directive, the Bern, Bonn, or CITES Conventions, or under the Wildlife and Countryside Act, 1981, or the Nature Conservation and Amenity Lands (Northern Ireland) Order, 1985.

This resulted in a list of 159 species, (see Table 2), which can be broken down as;

| | |
|---------------------|-----|
| Short list species | 11 |
| Middle list species | 12 |
| Long list species | 136 |

The status of each of these species, both nationally and locally, has been listed in the Species Audit. The UK Biodiversity Steering Group states that long list species are classified as 'species of conservation concern', whilst those on the short and middle list are 'Priority species'. All short and middle list species have been included on the Tees Valley Priority Species List.

2. Species not on the Long List, but which are found locally and meet the criteria.

The Long List is not an exhaustive list of species which meet the stated criteria. There are many nationally threatened, rare and scarce species which have not been included on the list. Further research into some groups is necessary and will, no doubt, result in further additions to the list.

eg. Rush-leaved fescue

3. Species of local conservation concern

- Locally threatened/declining – for example due to lack of management, pollution, development, recreation. (D)
- Locally rare or scarce (S)
- Characteristic of the area (CH)
- Typical of a particular habitat (T)
- Locally popular/'cultural value' (CV)

Cuckoo (D)

Common lizard (CV)

Carabus nitens a ground beetle (S)

Ringlet (S, T)

White letter hairstreak (S)

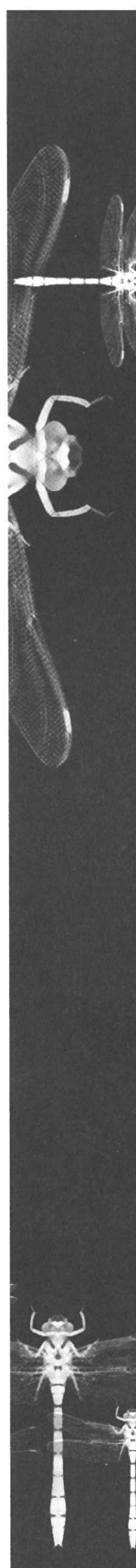
Common hawker (T, CV)

Emerald damselfly (S)

Field maple (S, T)

Sundew (S, T, CV)

Wild thyme (S, CV)



The Tees Valley 50

This resulted in a list of 170 species. The production of Action Plans for this number of species would be very time consuming, therefore prioritisation of species was necessary. An initial priority list of fifty species for our local area was produced and circulated for comment (see Appendix 1). This included species which met the above criteria and spanned a broad range of habitat types. Some of the plant species on this list were included because they were indicative of a particular type of habitat, however many of these have been omitted from the final priority list as they should benefit from habitat protection and management. The Tees Valley Priority Species are listed below.

Mammals

| | |
|------------|------------------|
| Water vole | Harbour porpoise |
| Brown hare | Pipistrelle bat |

Birds

| | |
|--------------------|----------------|
| Skylark | Lapwing |
| Grey partridge | Snipe |
| Song thrush | Curlew |
| Linnet | Cuckoo |
| Reed bunting | Sanderling |
| Corn bunting | Knot |
| Spotted flycatcher | Shelduck |
| Tree sparrow | Shoveler |
| Bullfinch | Redshank |
| Turtle dove | Reed warbler |
| Pochard | Little tern |
| Merlin | Sand martin |
| Ringed plover | Yellow wagtail |
| Barn owl | |

Amphibians

| | |
|--------------------|-------------|
| Great crested newt | Common frog |
|--------------------|-------------|

Reptiles

Common lizard

Fish

Sea lamprey

Beetles

| | |
|-----------------------------|-----------------------|
| <i>Hydroporus rufifrons</i> | <i>Carabus nitens</i> |
|-----------------------------|-----------------------|

Butterfly

White letter hairstreak

Dragon/damselflies

| | |
|-------------|-------------------|
| Common hawk | Emerald damselfly |
|-------------|-------------------|

Mollusc

Ashfordia granulata

Moth

Least minor moth

Moss

Tortula freibergii

Vascular Plants

| | |
|--------------|----------------------|
| Field maple | River water crowfoot |
| Bluebell | Burnt-tip orchid |
| Sundew | Wild thyme |
| Sea lavender | |

Future Action

In compiling this list we have attempted to include species which cover a broad range of taxa and habitats. However, birds are a well recorded species which are important in monitoring the health of a variety of habitats and this is evident from the large proportion of birds in the priority species list. National and regional Species Action Plans are being produced by various specialist groups, giving a good basis for the development of local Species Action Plans.

Species Action Plans

Local species action plans will follow the format suggested by the UK Biodiversity Steering Group;

- 1 Current status
- 2 Current factors affecting the species
- 3 Current action
- 4 Action plan objectives and targets
- 5 Proposed action with lead agencies
 - Policy and legislation
 - Site safeguard and management
 - Species management and protection
 - Advice to landowners/managers and others involved in conservation and recovery of species within and beyond the plan area
 - Future research and monitoring
 - Communications and publicity
- 6 Links to other action plans
- 7 Coordination and review

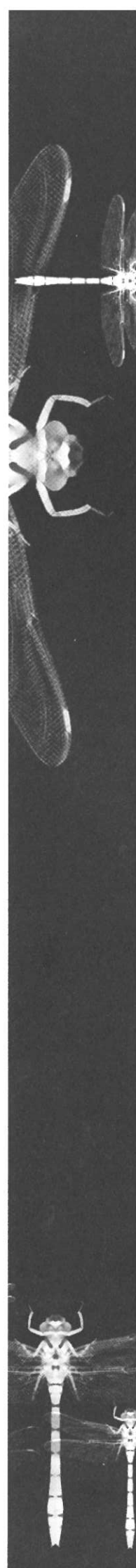
Areas For Further Study

The compilation of the audit highlighted many areas where further study is needed.

| | |
|---------------------|----------------|
| Ant | Spider |
| Bee | True bug |
| Beetle | Worm |
| Cricket/Grasshopper | Alga |
| Crustacean | Lichen |
| Fly | Liverwort |
| Mayfly | Moss |
| Mollusc | Stonewort |
| Moth | Marine species |

Habitats

All marine habitats



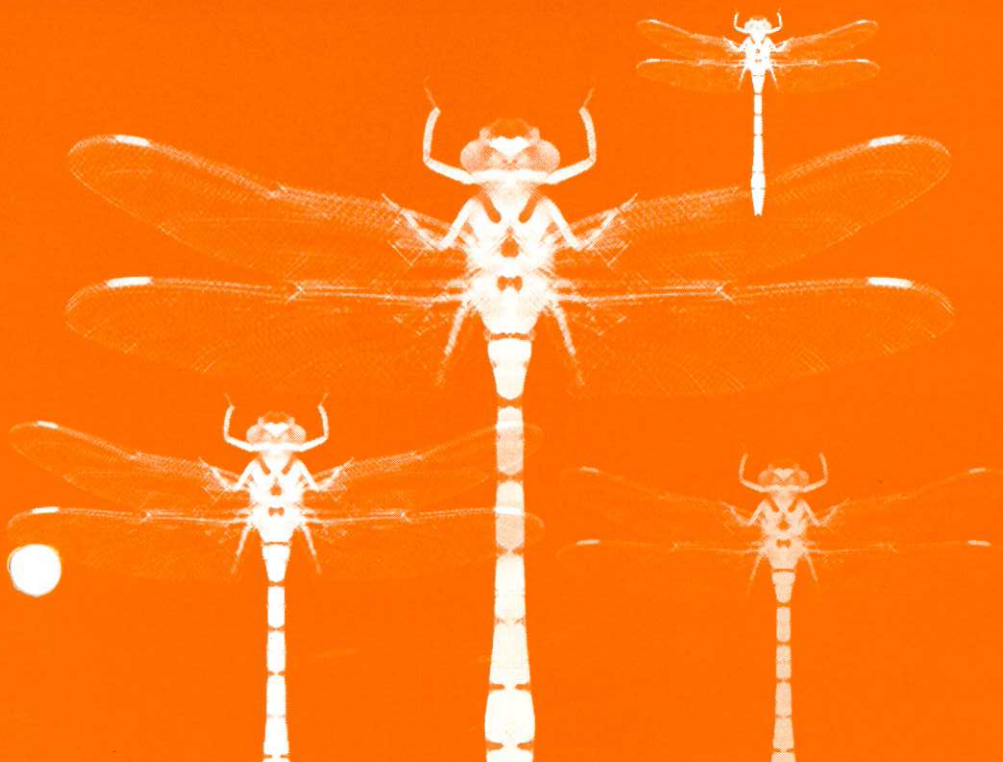
Tees Valley Species Audit

The biodiversity audit reviews the status of those habitats and species found in the Tees Valley area which are listed in the UK Steering Group Report. The information we have on our wildlife is fairly comprehensive, particularly when one considers the situation in other parts of the world, and even other parts of the UK. There are, however, certain habitats and groups of species for which information is lacking, such as marine habitats and associated species. The audit also serves to highlight topics which require further study, and recommendations to this effect will be made in the relevant Action Plans.

This species audit lists all of the species on the UK Steering Group Long List which occur in the Tees Valley area. The ensuing tables give a brief assessment of the status of the species, on both a national and local scale, and list some of the key groups which are likely to have a role in the conservation of that particular species.

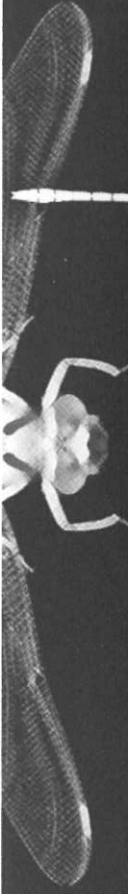
The local status of species is based on data for the old Cleveland County. Data for the Darlington area is included in the Durham Wildlife Audit, 1995. Integration of species data for the two areas did not seem appropriate as the data available is not directly comparable.

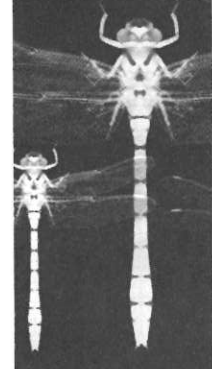
The results of the habitats audit are included in the relevant Habitat Action Plans.



UK STEERING GROUP LONG LIST SPECIES WHICH OCCUR IN THE TEES VALLEY

| SHORT LIST | MIDDLE LIST | LONG LIST |
|---|---|--|
| Water vole Brown hare European otter Harbour porpoise Pipistrelle bat Red squirrel Skylark Grey partridge Song thrush Great crested newt Netted carpet moth | Linnet Reed bunting Common scoter Corn bunting Spotted flycatcher Tree sparrow Bullfinch Turtle dove Sturgeon Hydroporus rufifrons Tortula freibergii Sea lavender | Roe deer Common dolphin Hedgehog Grey seal Badger Stoat Weasel Brandt's bat Daubenton's bat Whiskered bat Natterer's bat Water shrew Noctule Common seal Brown long-eared bat Common shrew Goshawk Sparrowhawk Sedge warbler Reed warbler Razorbill Kingfisher Shoveler Teal Wigeon Mallard Gadwall Greylag goose Pink-footed goose Meadow pipit Turnstone Pochard Tufted duck Goldeneye Sanderling Dunlin Knot Purple sandpiper Goldfinch Greenfinch Siskin Tree creeper Little ringed plover Ringed plover Dipper Hawfinch |
| | | Mute swan House martin Great spotted woodpecker Lesser spotted woodpecker Yellowhammer Merlin Kestrel Pied flycatcher Brambling Snipe Red throated diver Swallow Herring gull Lesser black backed gull Little gull Bar-tailed godwit Grasshopper warbler Red-breasted merganser Gannet Pied wagtail Grey wagtail Yellow wagtail Curlew Whimbrel Wheatear Coal tit Blue tit Great tit Willow tit Marsh tit Tree sparrow Shag Cormorant Ruff Redstart Chiffchaff Wood warbler Willow warbler Green woodpecker Snow bunting Golden plover Grey plover Duncock Manx shearwater Water rail Goldcrest |
| | | Sand martin Whinchat Woodcock Nuthatch Arctic skua Great skua Little tern Common tern Arctic tern Tawny owl Blackcap Garden warbler Lesser whitethroat Whitethroat Shelduck Greenshank Redshank Redwing Fieldfare Barn owl Lapwing Common toad Common frog Palmate newt Smooth newt Slow worm Adder River lamprey Brook lamprey Sea lamprey Sand goby Atlantic salmon Northern Brown Argus Ashfordia granulata Leostyla anglica Horse mussel Dog whelk Least minor moth Smooth rupturewort Bluebell Burnt-tip orchid Corn buttercup River water crowfoot Ivy leaved water crowfoot |





LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------|--|---|--|---|
| Water vole | Rivers and streams | Widespread in Britain. Serious decline in numbers and distribution. GB population est. 1,200,000 animals. | Under-recorded. Known on Marton West Beck and Coatham Marsh NR. | Anglers Environment Agency Middlesbrough Becks Project FWAG MAFF |
| Roe Deer | Woodland | Widespread in Scotland and N. England and across S. Europe. Extending range | Under-recorded but frequently observed in woodland areas. Saltburn Gill, Brewsdale Woods. Also on urban/industrial sites - British Steel, etc. | Community Forest Industry FWAG MAFF |
| Common dolphin | Marine | Widespread distribution. Mainly around W. and S. of UK | Under-recorded but occasionally sighted off coast. | Sea anglers Diving clubs Ornithologists |
| Hedgehog | Woodland/scrub/hedgerow | Widespread in Britain. | Lack of records due to common status in UK. | FWAG MAFF |
| Brown hare | Arable | Widespread in Britain but numbers have been declining since early 1960s. Estimated at 817,500 - 1,250,000 | Under-recorded. Well noted on industrial grasslands around the North Tees, ICI Billingham, British Chrome and British Steel. | FWAG MAFF Community Forest Industry |
| European otter | Rivers and streams/coastal | Rapid decline between 1950s and 1970s. | Two breeding sites in the county, one of which has not been used for several years. Sightings on upper Tees, R. Leven and in National Park. | Environment Agency Otters and Rivers Projects Vincent Wildlife Trust Anglers FWAG MAFF |
| Badger | Woodland/scrub/hedgerow | Widespread in UK and Europe | Well recorded species. Setts well known. | Badger groups FWAG MAFF |
| Stoat | Arable/woodland/marsh/heathland/hedgerow, etc. | Widespread across UK, except for some islands in NW. Also across much of northern holarctic. | Considered widespread but under-recorded. | FWAG MAFF |
| Weasel | Arable/woodland/marsh/heathland/hedgerow, etc. | Widespread in England and Scotland, absent from Ireland. Extends across northern Holarctic. | Considered widespread but under-recorded. | FWAG MAFF |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------------|---|--|--|-------------------------------|
| Common Seal | Open ocean/ intertidal | Widely distributed with main concentrations around NW Scotland. Also common around Europe. | Frequently observed around coast and common at Seal Sands where up to 35 have been observed. This represents 0.2% of the UK population. | Fishermen INCA Industry |
| Red squirrel | Coniferous woodland | Marked decline over the last 50 years. Now largely restricted to Scotland and Ireland. Current UK population estimated at 160,000. | Small remnant population at Nesbitt Dene in north of county. | Community Forest Red Alert |
| Common shrew | Grassland/shrub/ hedgerow/ woodland | Widespread in Britain, absent from Ireland and some Scottish Islands. Widespread in parts of Europe. | Considered widespread but under-recorded. | FWAG MAFF |
| Daubenton's bat | Woodland/cave/ urban | Widespread across UK and Europe. Absent from UK Islands and more scattered distribution north of the Lake District and in Ireland. No evidence of decline in range or abundance but is a vulnerable species. | Known to occur in the county but numbers uncertain. | Bat groups |
| Noctule bat | Woodland/urban | Widespread distribution across UK and Europe, except for exposed regions of N and NW Scotland and offshore Islands. Vulnerable in UK and Europe as a whole. Declining. | Known to occur in the county but numbers uncertain. | Bat groups |
| Pipistrelle bat | Urban | Most common British bat. Significant declines this century. Between 1978 and 1993 70% decline. Current pre-breeding population estimate for UK is 2,000,000 animals. | Most abundant and well recorded of the bat species in the county, however there was still insufficient data to estimate population size. | Bat groups |
| Brown long-eared bat | Woodland/cave | Widespread distribution across UK and Europe, except for exposed regions of N and NW Scotland and offshore Islands. No evidence of decline as yet but this is a vulnerable species. | Known to occur in the county but numbers uncertain. | Bat groups |
| Natterer's bat | Woodland/cave/ urban | Widespread across the UK except for some islands off NW Scotland. Also found in most of Europe. Population declining and vulnerable in most of its range. | Known to occur in the county but numbers uncertain. | Bat groups |
| Brandt's bat | Woodland/cave | Widespread but vulnerable across mainland England and Europe. Population declining. | Known to occur in the county but numbers uncertain. | Bat groups |
| Whiskered bat | Woodland/cave/ urban | Widespread across the UK except for Scotland and in Europe. Vulnerable in UK and Europe. Population declining. | Known to occur in the county but numbers uncertain. | Bat groups |



LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------|-----------------------------|---|---|--|
| Cormorant | Maritime cliff and slope | Decrease in UK breeding population over last 30 years. Rapid and sustained growth in population of W. Europe. British breeding population is estimated at around 7,000 pairs. | Common visitor and fairly common breeder. Counts of up to 731 around Teesmouth in 1995. 12 pairs breeding at Boulby Cliffs and 48 at Hunt Cliff where the population has been declining since 1990. | Teesmouth Bird Club RSPB |
| Mute swan | Standing open water | Widespread in GB with an estimated population of 25,800 birds, higher than 1983 estimate. | Scarce breeding resident, has been an increase in numbers and breeding success. 17 pairs nested in the county in 1997. 12 of these were successful in producing a total of 58 cygnets. | Teesmouth Bird Club RSPB Tees Ringing Group |
| Grey/lag goose | Standing open water | Population is now increasing in the UK and is estimated at 22,000, including native and introduced birds. | Scarce breeder and fairly common winter visitor. Generally outnumbered all the other geese species combined. 9 breeding pairs at 3 localities. Numbers are steadily increasing. 1994 maximum count was over 530. | Teesmouth Bird Club RSPB |
| Shelduck | Standing open water/estuary | Found throughout Europe and the UK. Numbers are increasing and there are 10,600 breeding pairs in the UK. | Scarce breeder but very common on passage and in winter. Up to 1,426 were seen at Teesmouth in 1994, 4,440 counted in Jan. 1970 when Seal Sands were about three times their current size. Recently there have been 3-15 breeding pairs around the Tees marshes | Teesmouth Bird Club RSPB Durham University English Nature |
| Teal | Standing open water/marsh | Decreasing in numbers and range in Britain. There are an estimated 1,500-2,600 breeding pairs in Britain. | Rare breeder, common on passage and in winter. Over 1,000 regularly recorded since 1978, peaking in 1984 with 4,426. Since then no more than 2,000 have been counted. | Teesmouth Bird Club RSPB |
| Mallard | Standing open water/marsh | Widespread in Britain where the breeding population has increased since the early 1960s. In Britain there are estimated to be over 100,000 breeding pairs. | Fairly common breeder, common on passage and in winter. 500-600 breeding in the county. A survey of 30 water bodies in 1990 resulted in minimum counts of 2,520. | Teesmouth Bird Club RSPB |
| Shoveler | Standing open water | Recent decline in NW European range. In Britain there has been a decrease except in protected areas. British population is estimated at 1,000-1,500 breeding pairs. | Breeds in small numbers, fairly common on passage and in winter. 3 broods of ducklings were seen in July 1994. Numbers seem to be gradually increasing. In 1995 232 were counted at Teesmouth. | Teesmouth Bird Club RSPB English Nature |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------------|---------------------------|---|--|--|
| Pochar'd | Standing open Water | Small British population of about 400 breeding pairs. Annual counts have decreased in some areas. More common in NW Europe. | Rare breeder, fairly common on passage and in winter. Annual counts highest ever in Cleveland at 930 | Teessmouth Bird Club RSPB |
| Tufted duck | Standing open water | Most common diving duck breeding in Britain and Ireland. Fairly widespread and increasing range. There are estimated to be 7,000-8,000 breeding pairs in Britain. | Small but continuous increase in the area especially over the last 15-20 years. At least 28 broods of ducklings were observed totalling 167 offspring in 1993. | Teessmouth Bird Club RSPB |
| Goshawk | Woodland | Was eliminated from Britain and has since re-established. European population is probably over 40,000 pairs, with the British population of 200 pairs being much smaller. | Rare resident, only occasional sightings. Displaying males seen in 5 different localities where breeding could possibly take place. Females only seen at 4 places. | Teessmouth Bird Club RSPB Community Forest |
| Sparrowhawk | Coniferous woodland | Now widespread following a decline due to organochlorine pesticides. British breeding population is estimated at 32,000 pairs. | Fairly common resident, passage and winter visitor found throughout Cleveland. At least 20-30 pairs across county, maybe as many as 40 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Kestrel | Most habitats | Widespread with over 50,000 pairs in Britain. Most widespread British raptor. | Fairly common resident. Nesting at industrial sites in county. Population in Cleveland estimated at about 30-40 pairs. | Teessmouth Bird Club RSPB Community Forest MAFF FWAG |
| Merlin | Upland heathland | Small UK population was declining but now seems to be increasing. Estimated to be 550-650 pairs in UK. | Irregular breeder, scarce in winter, except for in NYMNP area where there are at least five breeding pairs known. | Teessmouth Bird Club RSPB MAFF FWAG |
| Grey partridge | Unimproved grassland | Numbers have been declining for at least 40 years in the UK. Widespread in Europe. Estimated UK population is 150,000 pairs. | Fairly common resident. Breeding population is estimated at about 700-800 pairs but there has been a recent dramatic reduction. | Teessmouth Bird Club RSPB Community Forest FWAG MAFF |
| Water rail | Standing open water/marsh | Breed extensively but thinly in Britain. Declining with only 450-900 pairs in Britain and twice this figure in Ireland. May be more as they are elusive. | Scarce resident and winter visitor. A couple of pairs breed in some years. 10-20 pairs are seen in winter. Has been a decline in numbers. | Teessmouth Bird Club RSPB |
| Little ringed plover | Standing open water | Increasing in Britain with approximately 825-1,070 pairs. | Irregular visitor and scarce summer visitor. Present breeding population has remained stable at 2-4 pairs. | Teessmouth Bird Club RSPB |

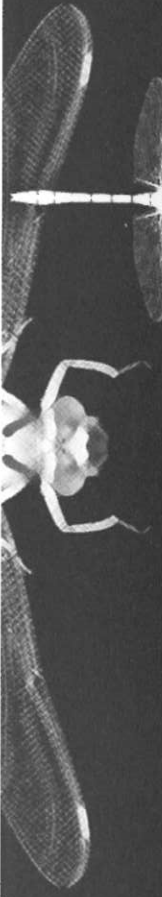


LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|---------------|--|---|--|---|
| Ringed plover | Sandy/shingle beaches | Increasing in England and Wales. UK population estimated at over 10,000 pairs. This represents almost 80% of the temperate breeding population. | Scarce breeder, fairly common passage and winter visitor. At Teesmouth the present breeding population is about 70-80 pairs. | Teesmouth Bird Club RSPB English Nature Durham University |
| Golden plover | Upland heathland | Overall reduction in range. UK population estimated at 23,000 pairs which is more than 99% of EC population, 3% of the European population. | Scarce breeder, common passage and winter visitor. There are often as many as 1,500-2,500 in Cleveland in winter. | Teesmouth Bird Club RSPB NYMNP |
| Lapwing | Arable/improved grassland | Substantial decline since 1962 but still widely distributed. UK population estimated at 205,000- 260,000 pairs. | N. England is now one of more important areas. Common breeder and abundant visitor. Declining, breeding population is now about 800-1,000 pairs. | Teesmouth Bird Club RSPB Community Forest FWAG MAFF |
| Snipe | Upland heathland/ grazing marsh/fen | Decline in range and numbers. British population is established at over 30,000 pairs. | Scarce breeder, common passage and winter visitor. Highest count is 100-150 birds. Probably no more than 4-5 breeding pairs now due to dramatic reduction of Tees marshes. | Teesmouth Bird Club RSPB NYMNP English Nature Durham University Northumbrian Water |
| Woodcock | Woodland | Decreasing in UK but breeds widely across Europe. 8,500-21,500 pairs in Britain. | Scarce breeder, fairly common passage and winter visitor. There are a total of 40-50 breeding pairs in the county. | Teesmouth Bird Club RSPB Community Forest |
| Curllew | Upland heathland | Widespread across much of Britain. Estimated that there are 33,000-38,000 pairs in Britain and 12,000 pairs in Ireland which is 35% of the estimated European breeding population. There has been a decline in numbers. | Fairly common breeder, on passage and in winter. There are about 40 breeding pairs. More abundant in passage with a maximum count of 1,219 in 1994. | Teesmouth Bird Club RSPB NYMNP |
| Redshank | Saltmarsh/grazing marsh | Slight decline in recent years. Population in Britain estimated at 30,600-33,600 pairs. | Breeding in fair numbers, common on passage and in winter. Over 40 breeding pairs, maximum count 1,900 birds in 1984. | Teesmouth Bird Club RSPB English Nature Durham University |
| Pied wagtail | Arable/urban | Common throughout Britain, has been little change in population. There are an estimated 300,000 territories in Britain and 130,000 in Ireland | Common passage migrant and visitor. Often found roosting in industrial areas in numbers up to 1,500. | Teesmouth Bird Club RSPB FWAG MAFF Industry |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|--------------------|---|---|--|---|
| Dipper | Rivers and streams | Found across N and W Britain and into more lowland counties. Decline in upland areas. British population estimated at 7,000-21,000 pairs. | Scarce resident. Breeding population is approximately 8-12 pairs. This is unlikely to increase due to the lack of suitable habitat. | Teesmouth Bird Club RSPB |
| Duncock | Hedgerow/scrub | Widespread in Britain and Europe. There are an estimated 2,000,000 territories in Britain. | Common resident. Breeding population is estimated at 3,500 pairs. | Teesmouth Bird Club RSPB FWAG MAPP Community Forest |
| Redstart | Hedgerow/woodland | Widespread but decreasing in Britain and Europe as a whole. British population estimated at 90,000 pairs. | Scarce breeding summer visitor, fairly common passage visitor. Only about 5-7 breeding pairs in the county. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Whinchat | Upland heathland/grassland | Declined in Britain and W Europe. British population estimated at 14,000-28,000 pairs. | Scarce breeding summer and passage visitor. County breeding population is about 50-70 pairs and is not thought to have fluctuated much this century. | Teesmouth Bird Club RSPB NYMNP |
| Wheatear | Coastal grassland/maritime cliff and slope. | Found mainly in the N and W of Britain. There has been a slight decline in Britain and the population is estimated at 55,000 pairs. | Rare breeder, fairly common passage and summer visitor. Breeding population is usually about 3-5 pairs. | Teesmouth Bird Club RSPB |
| Ring ouzel | Upland/montane | Population is declining and becoming more fragmented. There is an estimated population of 5,500-11,000 pairs in Britain and 180-360 pairs in Ireland. | Rare breeder and scarce on passage. | Teesmouth Bird Club RSPB NYMNP |
| Song thrush | Most terrestrial habitats | Declining in Britain. There are an estimated 990,000 territories in Britain and 390,000 in Ireland. | Common resident, passage and winter visitor. Breeding population is estimated at 1,500-2,000 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Grasshopper warble | Scrub/marsh/arable/sand dunes/coastal grassland | Declining generally throughout range. British population is estimated at 10,500 pairs. There are an estimated 5,500 pairs in Ireland. | Scarce breeding, summer and passage visitor. Present breeding population is estimated at 170 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |



LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|--------------------|-----------------------------|--|--|--|
| Sedge warbler | Marsh/scrub | Declining and has already disappeared from some areas. There are an estimated 250,000 territories in Britain and 110,000 in Ireland. | Fairly common breeding and passage visitor. Seems to have increased in recent years. Present breeding population is estimated at 170 pairs. | Teessmouth Bird Club RSPB |
| Reed warbler | Reedbeds | Occurs mainly in S and E England, although they are extending their range. There is an estimated population of 40,000-80,000 pairs in Britain. | Scarce breeding summer and passage visitor. Seems to be breeding more often in the area. In 1987 there were probably 22-24 breeding pairs, this could be as high as 40 pairs by the year 2000. | Teessmouth Bird Club RSPB Industry |
| Lesser whitethroat | Scrub/hedgerow/ parkland | Lowland species which is concentrated in England. Has increased in numbers recently and there are an estimated 80,000 territories in Britain. | Scarce breeding summer and passage visitor. There are approximately 50-80 pairs in the county. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Whitethroat | Scrub/woodland/ hedgerow | Occurs throughout England and Wales but not in upland areas. Numbers tend to fluctuate. Estimated to be 660,000 territories in Britain. | Fairly common breeder summer visitor, scarce on passage. County breeding population has increased, since population crash, to 400 pairs. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Garden Warbler | Woodland/scrub | Widespread in England, only absent from N Scotland. Estimated to be 200,000 territories in Britain. | Fairly common breeding summer visitor, scarce on passage. Total population is estimated at about 200 pairs. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Blackcap | Woodland | Widespread and increasing, especially in N Britain. Estimated to be 580,000 territories in Britain and 40,000 in Ireland. | Fairly common breeding summer and passage visitor, rare in winter. Estimated population is about 600 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Wood warbler | Broadleaved woodland | Scattered distribution tending towards W England. UK population estimated at 30,000-60,000 singing males. | Rare breeding summer visitor and passage visitor, rare in winter. Rarest breeding warbler in Cleveland. Total population estimated at 5-10 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Chiffchaff | Woodland | Fairly widespread especially in S and W Britain. There are an estimated 640,000 territories in Britain and 290,000 in Ireland. Slightly increasing in numbers. | Fairly common breeding summer and passage visitor, rare in winter. Population estimated at 60-80 pairs. | Teessmouth Bird Club RSPB Community Forest |

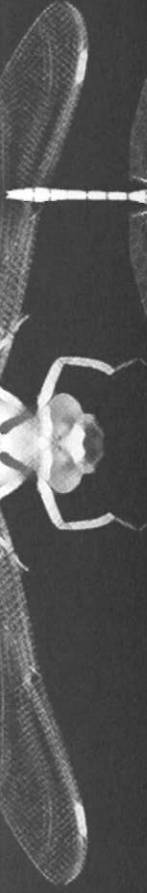
LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|--------------------|---|--|--|---|
| Dipper | Rivers and streams | Found across N and W Britain and into more lowland counties. Decline in upland areas. British population estimated at 7,000-21,000 pairs. Widespread in Britain and Europe. There are an estimated 2,000,000 territories in Britain. | Scarce resident. Breeding population is approximately 8-12 pairs. This is unlikely to increase due to the lack of suitable habitat. | Teesmouth Bird Club RSPB |
| Duncock | Hedgerow/scrub | | Common resident. Breeding population is estimated at 3,500 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Redstart | Hedgerow/woodland | Widespread but decreasing in Britain and Europe as a whole. British population estimated at 90,000 pairs. | Scarce breeding summer visitor, fairly common passage visitor. Only about 5-7 breeding pairs in the county. | Teesmouth Bird Club RSPB FWAG MAFF |
| Whinchat | Upland heathland/grassland | Declined in Britain and W Europe. British population estimated at 14,000-28,000 pairs. | Scarce breeding summer and passage visitor. County breeding population is about 50-70 pairs and is not thought to have fluctuated much this century. | Community Forest Teesmouth Bird Club RSPB NYMNP |
| Wheatear | Coastal grassland/maritime cliff and slope. | Found mainly in the N and W of Britain. There has been a slight decline in Britain and the population is estimated at 55,000 pairs. | Rare breeder, fairly common passage and summer visitor. Breeding population is usually about 3-5 pairs. | Teesmouth Bird Club RSPB |
| Ring ouzel | Upland/montane | Population is declining and becoming more fragmented. There is an estimated population of 5,500-11,000 pairs in Britain and 180-360 pairs in Ireland. | Rare breeder and scarce on passage. | Teesmouth Bird Club RSPB NYMNP |
| Song thrush | Most terrestrial habitats | Declining in Britain. There are an estimated 990,000 territories in Britain and 390,000 in Ireland. | Common resident, passage and winter visitor. Breeding population is estimated at 1,500-2,000 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Grasshopper warble | Scrub/marsh/arable/sand dunes/coastal grassland | Declining generally throughout range. British population is estimated at 10,500 pairs. There are an estimated 5,500 pairs in Ireland. | Scarce breeding, summer and passage visitor. Present breeding population is estimated at 170 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |



LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|--------------------------|-----------------------------|---|--|--|
| Willow warbler | Woodland/scrub | Common visitor to Britain and common throughout Europe. There are an estimated 2,300,000 territories in Britain and 830,000 in Ireland. | Common breeding summer visitor and passage migrant. Breeding population is estimated at 2,000-3,000 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Goldcrest | Coniferous woodland | Abundant in numbers although distribution patchy. Slight decrease in numbers. In Britain there are an estimated 560,000 territories, 300,000 in Ireland. | Fairly common resident and passage migrant. Total breeding population is estimated at 200-300 pairs and is thought to be quite stable. | Teessmouth Bird Club RSPB Community Forest |
| Spotted flycatcher | Woodland | Patchy but widespread distribution. Estimated to be 120,000 territories in Britain and 35,000 in Ireland. | Fairly common breeding summer visitor and scarce passage migrant. Estimated breeding population is 150-180 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Pied flycatcher | Broadleaved woodland | Most common in Wales and W Britain. There is an estimated population of 35,000-40,000 pairs in Britain. | Rare breeding summer visitor, regular on passage. Maximum count at least 150. Evidence of breeding sketchy. | Teessmouth Bird Club RSPB Community Forest |
| Marsh tit | Broadleaved woodland | Found in England and Wales, there has been a progressive decline and in Britain there are now an estimated 60,000 territories. | Approximately 80-90 pairs breed regularly in the county. | Teessmouth Bird Club RSPB Community Forest |
| Lesser black-backed gull | Coastal | Widely distributed in UK, has been a slight increase in numbers. There are an estimated 83,500 coastal and inland pairs breeding in Britain. | Never very numerous, a few pairs nest in some years. | Teessmouth Bird Club RSPB Community Forest |
| Herring gull | Coastal | Found around coast of UK, fewer on east coast. Has recently been a decline in numbers. There are an estimated 161,000 breeding pairs in Britain and 44,700 in Ireland. | In the main breeding area there were approximately 600 pairs in 1992 and 1993. Average wintering population is usually about 6,000-10,000 pairs. | Teessmouth Bird Club RSPB |
| Common tern | Coastal/standing open water | Widely dispersed but more abundant in W Scotland. Numbers declining. Estimated to be 12,900 pairs in Britain and 3,100 pairs in Ireland. This represents 3% of the world population. | Scarce breeder, common in summer and in passage. | Teessmouth Bird Club RSPB |
| Little tern | Coastal | Patchy distribution, declining numbers. There are an estimated 2,430 pairs in Britain and 390 pairs in Ireland. This is about 3% of the world population and 15% of the European total. | Usually a scarce breeder although there has been a recent dramatic increase in numbers. In 1993 there were 45 breeding pairs. | Teessmouth Bird Club RSPB |



LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|---------------------------|----------------------|---|--|--|
| Turtle dove | Arable | Mainly concentrated in SE England. Declining and reducing their range. There are an estimated 75,000 territories in Britain. | At extreme north of its breeding range and is therefore scarce. Irregular breeder and rare summer visitor. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Barn owl | Arable | Seriously declining but widely distributed in England (few in Scotland). There are an estimated 4,400 pairs in Britain and Ireland. | Rare resident. Has been a slow decline in numbers. If this trend continues barn owl will no longer breed in this county by mid-late 90s. Currently no more than 3-4 pairs in the county. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Tawny owl | Woodland/arable | Distributed across Britain, more abundant in England and Wales. Has declined in Britain but increased in other European countries. Estimated to be about 20,000 pairs in Britain. | Most common breeding owl in the county, breeding population is estimated at 150 pairs. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |
| Long-eared owl | Woodland | Widespread but patchy distribution. British population decreasing. Breed widely elsewhere, 1,100-3,600 in both Britain and Ireland. | Rare resident, regular passage migrant and visitor. Only a few breeding pairs in the county. | Teessmouth Bird Club RSPB Community Forest |
| Short-eared owl | Heathland | Mainly found in England and Scotland. Decreasing in numbers. British population is about 1,000-3,500 pairs. | Irregular breeder, regular visitor and passage migrant. 1-2 pairs thought to breed in NYMNP area of county. | Teessmouth Bird Club RSPB NYMNP |
| Kingfisher | Rivers and streams | Mainly found in England, although not in upland areas. Numbers declining. British population is estimated at 3,300-5,500 and in Ireland 1,300-2,100. | One of rarest breeding birds in county. The population has remained stable at 3-5 pairs. | Teessmouth Bird Club RSPB |
| Green woodpecker | Woodland | Mainly found in southern Britain, although the range is changing slightly. There has been a decline in numbers and the current British population is about 15,000 pairs. | Scarce resident. Numbers have decreased and only 4-6 pairs nest regularly. | Teessmouth Bird Club RSPB Community Forest |
| Great spotted woodpecker | Woodland | Fairly widespread especially in England. There has been a small decline. British population is about 25,000-30,000 pairs. | Commonest of the woodpeckers and is still increasing its range. A 1985 survey indicated a population of 120-150 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Lesser spotted woodpecker | Broadleaved woodland | Found mainly in southern England and declining in numbers and range. British population is estimated at 3,000-6,000 pairs. | Extreme northern end of its range and has therefore probably never been more common than its present population of 1-3 pairs. | Teessmouth Bird Club RSPB Community Forest |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------|---|---|--|---|
| Skylark | Arable | Has been a considerable decline. There are an estimated 2,000,000 breeding territories in Britain and 570,000 in Ireland. | Common breeding bird with an estimated population of 700-900 breeding pairs. Has been a decline over the last 10-20 years. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Sand martin | Rivers and streams | Widespread, patchy distribution, currently a decrease in population size but this tends to show periodicity. | Scarce breeder, fairly common summer and passage visitor. Numbers in the county are variable. | Teesmouth Bird Club RSPB Environment Agency |
| Swallow | Arable | Widespread across UK except for N Scotland. Slight increase in numbers, estimated to be 570,000 territories in Britain and 250,000 in Ireland | Regular summer visitor and passage migrant. Estimated breeding population is 900-1,200 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| House martin | Urban/coastal | Common throughout most of UK. Estimated to be 250,000-500,000 pairs in Britain and 70,000-100,000 in Ireland. Has been slight decline | Common breeding summer visitor and passage migrant. Population is estimated at 500-1000 pairs. | Teesmouth Bird Club RSPB |
| Tree pipit | Unimproved pasture/scrub Broadleaved woodland | Found more in N and W of Britain. Striking decline, especially in S and Central England. Estimated to be 120,000 territories in Britain. | More common than previously thought with a breeding population of 55-75 pairs. Also common on passage. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Meadow pipit | Saltmarsh/ calcareous grassland/ heathland, etc. | Widespread but mainly in N and W Britain and W Ireland. | Common breeding and passage species. Total Breeding population is estimated at 1,500 pairs. | Teesmouth Bird Club RSPB NYMNP FWAG |
| Rock pipit | Coastal/maritime cliff and slope | Found on rocky coasts but declining. Estimated British population is 34,000 pairs and 12,500 pairs in Ireland. | Scarce resident, passage migrant and visitor. There are approximately 15-25 breeding pairs. | Teesmouth Bird Club RSPB |
| Yellow wagtail | Grazing marsh/ wet grassland | Wide but patchy distribution in England, mainly in the east. Has been a decline. There are an estimated 50,000 territories in Britain. | Breeding population is estimated at about 30 pairs. Fairly common on passage. | Teesmouth Bird Club RSPB |
| Grey wagtail | Rivers and streams | Widely distributed but concentrated in the upland areas of Scotland, Wales and Ireland. Population has recently increased and is estimated at 34,000 in Britain and 22,000 in Ireland | Scarce breeder and passage migrant. There are a total of 15-20 pairs. | Teesmouth Bird Club RSPB |

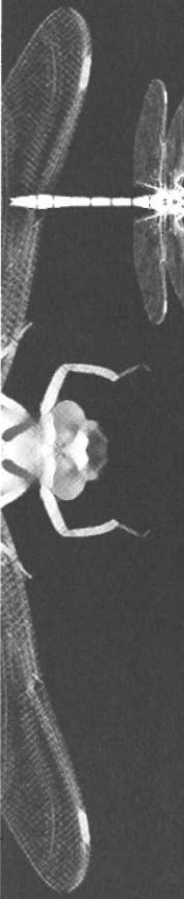


LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|--------------|------------------------------------|--|--|--|
| Willow tit | Coniferous woodland/scrub | Distributed across England and Wales in lowland areas. Declining in numbers. There are an estimated 25,000 territories in Britain. | Scarce resident, generally under-recorded. The breeding population is about 80-100 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Coal tit | Coniferous woodlands | Widespread across the UK although there has been a slight decline. Estimated to be 610,000 territories in Britain and 270,000 in Ireland. | Fairly common resident and scarce passage migrant. Estimated breeding population is about 450 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Blue tit | Broadleaved woodland/urban | Common across most of UK, fewer in N Scotland. Widespread in Europe although there has been a slight decline. 3,300,000 territories in Britain and 1,100,000 in Ireland. | Common resident with a breeding population of 4,000 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Great tit | woodlands/hedgerow | Widespread across UK, concentrated in woodlands. Estimated to be 1,600,000 territories in Britain and 420,000 in Ireland. | Common resident with a breeding population of 1,500 pairs. | Teessmouth Bird Club RSPB Community Forest FWAG |
| Nuthatch | Broadleaved woodland | Widespread in England and Wales, especially in the south. Numbers have increased. There are an estimated 130,000 territories in Britain. | Scarce resident with a fairly stable breeding population of 8-10 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Treecreeper | Coniferous or broadleaved woodland | Widespread, patchy distribution. Numbers decreasing, at present there are an estimated 200,000 territories in Britain and 45,000 in Ireland. | Fairly common resident with an estimated population of 250 pairs. | Teessmouth Bird Club RSPB Community Forest |
| Tree sparrow | Woodland/hedgerow | Patchy distribution, decreasing in numbers. British population is estimated at 110,000 territories, 9,000 in Ireland. | Widespread but not very numerous. In 1993 there were 130-150 breeding pairs and 330 wintering birds. | Teessmouth Bird Club RSPB Community Forest FWAG MAFF |
| Greenfinch | Arable/urban | Widely distributed across the UK, except in NW Scotland. Has been a slight decline in numbers. Estimated to be 530,000 territories in Britain and 160,000 in Ireland. | Common resident with a total population estimate of 2,750-3,000 pairs. | Teessmouth Bird Club RSPB FWAG MAFF Community Forest |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------|----------------------|---|---|---|
| Goldfinch | Scrub/woodland | Widespread in Britain. Increasing in numbers. In Britain there are an estimated 220,000 territories and 55,000 in Ireland. | Common resident and fairly common on passage. Population is estimated at about 600 pairs. | Teesmouth Bird Club RSPB Community Forest |
| Linnet | Scrub/hedgerow | Widespread, mainly in lowland areas. Has been a slight decrease. There are an estimated 520,000 territories in Britain and 130,000 in Ireland. | Common resident and passage migrant with a population of 1,800-2,000 pairs. Thought to be decreasing. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Lesser redpoll | Woodland | Widespread, patchy distribution. Has been a marked decline in numbers. Population estimated at 160,000 pairs in Britain and 70,000 in Ireland. | Scarce breeder and passage migrant with a total population of about 300 pairs. | Teesmouth Bird Club RSPB Community Forest |
| Bullfinch | Woodland/scrub | Widely distributed, more in S and E England and Ireland. Has decreased and there are now an estimated 190,000 territories in Britain and 100,000 in Ireland. | Widespread but not very common. Population is estimated at about 90-140 pairs. | Teesmouth Bird Club RSPB Community Forest |
| Yellowhammer | Arable | Widely distributed but concentrated down the eastern side of the country. Decreasing in numbers. Estimated to be 1,200,000 territories in Britain and 200,000 in Ireland. | Common in agricultural habitats, although it has declined. There are estimated to be 1,500-2,000 pairs. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Reed bunting | Marshland/reedbeds | Widespread, patchy distribution concentrated in SE England and Ireland. There are an estimated 220,000 territories in Britain and 130,000 in Ireland. Declining in numbers. | Fairly common resident and passage migrant. The county population is estimated to be 700-800 pairs. | Teesmouth Bird Club RSPB |
| Corn bunting | Arable | Patchy distribution which is declining in Britain and Europe as a whole. 160,000 territories in Britain, less than 30 in Ireland. | Fairly common but thought to be declining. There are estimated to be over 1,000 birds. | Teesmouth Bird Club RSPB FWAG MAFF Community Forest |
| Hawfinch | Broadleaved woodland | Very patchy distribution, having decreased considerably. British population is estimated at 3,000-6,500 pairs. Widely distributed across south and central Europe. | Scarce resident with a breeding population of only 10-15 pairs. This is thought to be a fairly stable number. | Teesmouth Bird Club RSPB Community Forest |

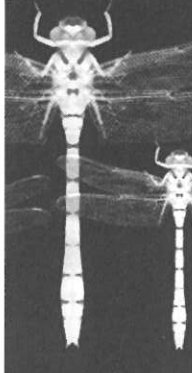


LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------------|--------------------------|--|--|--|
| Gadwall | Marsh/wetland | Patchy distribution around S and E. Rapidly increasing population. 770 pairs in Britain and 30 pairs in Ireland. | Rare to scarce visitor which has been increasing in numbers. Population in 1980 was about 6 pairs and is thought to be greater now. | Teessmouth Bird Club RSPB |
| Common toad | Standing open water | Declining in numbers in NE England. Widespread and abundant across Britain. | Widespread but declining. 49 records obtained as part of the Wild Pond Survey. 14,769 counted altogether. | FWAG Environment Agency |
| Common frog | Standing open water | Declining in numbers especially in Central and E England. Otherwise widespread and common. | Widespread but declining. 60 records as part of Wild Pond Survey. Still fairly common in most areas of the county. | FWAG Environment Agency |
| Great crested newt | Standing open water | Fairly widespread in Britain but has declined in recent years. This is the fastest declining of any amphibian or reptile. The British population is the largest in Europe. | Least common newt species. Recorded at 13 sites in Wild Pond Survey. Two main concentrations of sites, one in the extreme SW of Cleveland, the other in the NE of the county, 821 counted. | FWAG Planning Authorities Industry Landowners Environment Agency |
| Palmate newt | Standing open water | Widespread and common over much of Britain, especially in upland soft water areas. Generally little change in population size. | Found more often at coastal sites with an acidic nature. Less common than smooth newt. All distributed in the east of the county. 162 counted in the Redcar and Cleveland area. | FWAG Environment Agency |
| Smooth newt | Standing open water | Widespread and common across most of Britain. Generally little change in population size. | More common than Great crested. Recorded on 35 sites across the county. 451 counted altogether. | FWAG Environment Agency |
| Slow worm | Unimproved grassland | Widespread and locally common. More local and scarce in central and northern England. There has been a general decrease over most of Britain. | Nine recorded sites, all in the Redcar and Cleveland area. | |
| Adder | Upland/lowland heathland | Widespread and common. Numbers decreasing in some areas. | Four records, all in NYMNP area of the county. | NYMNP Northumbrian Water |
| Corn buttercup | Arable | Formerly an abundant cornfield weed, now very rare. | Rare in county, being present on only one site. Previously recorded at two other sites but numbers have declined since then. | |
| River water-crowfoot | Rivers and streams | Very local species | Rare in county, present at only 5-8 sites. Found in shallow reaches of the Tees. Has also been recorded at two sites in East Cleveland. | Environment Agency |

LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|---|--|--|--|---|
| Ivy-leaved water crowfoot | Ponds and ditches | Occasional species which may be sparse to abundant on muddy margins of ponds and ditches. | Rare in county, present at only 2-4 sites. Three of these records have been in the Redcar and Cleveland area. | |
| Bluebell | Broadleaved woodland | UK endemic species. Commonly found in woodlands here. | Widespread in the county. | |
| Burnt tip orchid | Limestone/coastal grasslands | Now a very rare and sparsely distributed species, having declined considerably. | Only occurs at Hart Warren SSSI in the North of the county. Very rare in county. | English Nature Landowner |
| Smooth rupturewort | | | Present at only 1 site in the county. Found at Seaton Carr sidings until 1991. This area has now been reclaimed. | |
| A moss (<i>Tortula Friebergii</i>) | | | Found at 2 sites in Cleveland | |
| Atlantic salmon | Open ocean/river | Widespread in British waters but pollution threatened due to over-exploitation and pollution. | | Tees Barrage Anglers Environment Agency |
| Sturgeon | Open ocean/river | Threatened in UK and European waters. | | Fishermen Environment Agency |
| River lamprey | Rivers and streams | Threatened in UK and European waters. | | Tees Barrage Anglers Environment Agency |
| Sea lamprey | Open ocean/river | Threatened in UK and European waters. | | Fishermen Environment Agency |
| A gastropod (<i>Ashfordia granulata</i>) | Coastal | | | |
| A snail (<i>Leostyla angelica</i>) | Coastal | | | |
| Dog whelk | Coastal | | | |
| Northern brown argus | Limestone/coastal grassland | Very local species. Subspecies <i>salmacis</i> found in about 7 well separated areas of N England. The two British subspecies are endemic. | Single insect seen at Hart Warren, 1970. Population at Castle Eden Dene (subsp. <i>salmacis</i> Stephens). | |
| A water beetle (<i>Hydroporus rufifrons</i>) | Marshland/coastal grassland/sand dunes | Old records show widespread distribution in Britain. Has died out in the east of its range and some well-known western sites. | Very rare. Found at one location in county - Hart Bog. | English Nature Landowner |



LOCAL SPECIES AUDIT

| SPECIES | HABITAT | STATUS IN UK AND EUROPE | LOCAL STATUS | KEY GROUPS |
|----------------------|------------------------------------|---|---|--------------------------------------|
| Netted carpet moth | Woodland (near streams and rivers) | Very local species. Main concentration is in the Lake District. | Rare. 1 near Billingham Beck Valley in August 1995. | Stockton Borough Council/BBV Wardens |
| Bordered gothic moth | Unimproved/coastal grassland | Widely distributed in south of England, except in the extreme SW. | Rare. 4 near Billingham Beck Valley in July 1995. | Stockton Borough Council/BBV Wardens |
| Least minor moth | Limestone grassland/scrub | Local species found in Cumbria, Yorkshire, Co. Durham and Northumberland. Not known outside GB. | Rare. Observed at Grimdon Dene. | |

Bibliography

Blick M.A.

Birds of Cleveland (unpublished)

Biodiversity Challenge an agenda for conservation in the UK (first and second edition)

Biodiversity: The UK Steering Group Report vol. 1 Meeting the Rio Challenge

Biodiversity: The UK Steering Group Report vol. 2 Action Plans

Cleveland County Council and Nature Conservancy Council

Cleveland Wildlife Strategy

Cleveland Wildlife Trust

Wild Pond Survey

Cleveland Wildlife Trust

Garden Pond Survey

Clifton S.J. & Hedley S.

1995 Durham Wildlife Audit

Durham County Council

Ed. D.G. Bell Teesmouth Bird Club

County of Cleveland Bird Reports 1994-1996

Gibbons, D.W., Reid, J.B., Chapman, R.A.

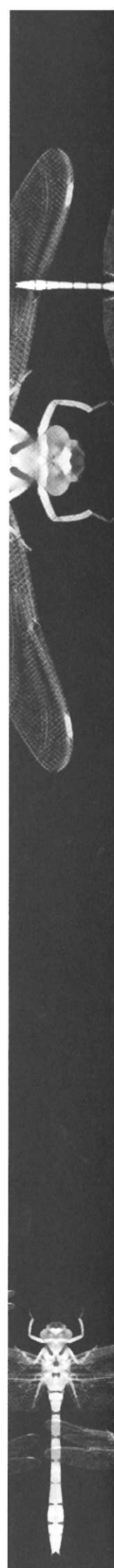
1993 The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991 T & AD Poyser

Lawrence I.

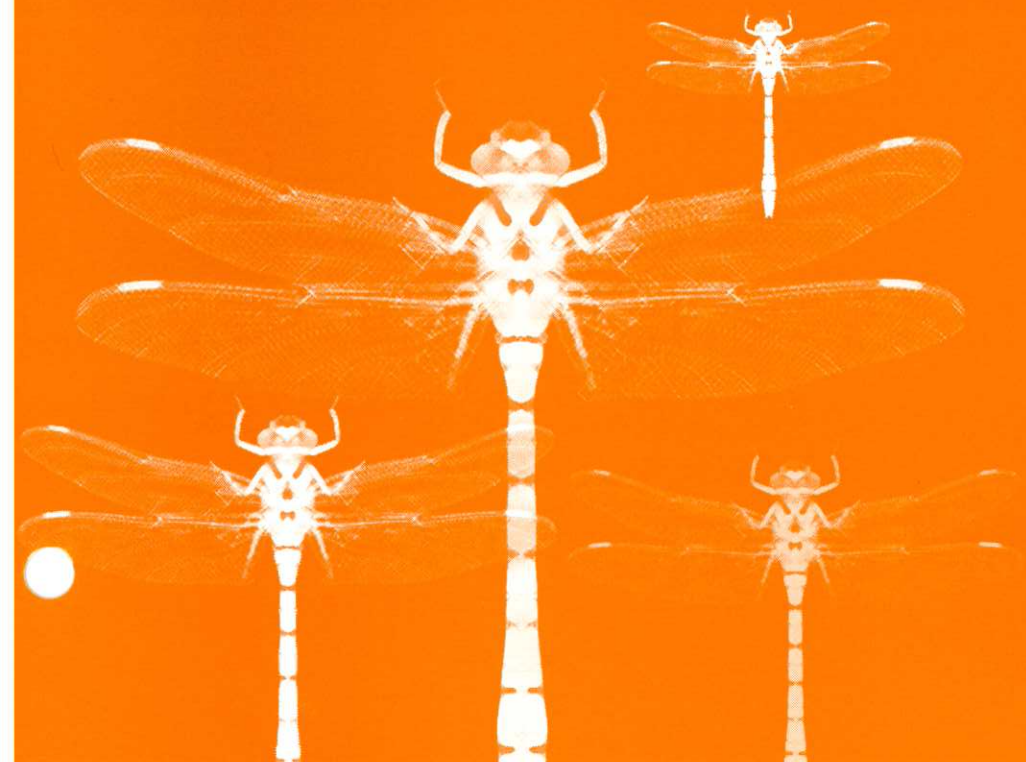
1994 A Guide to the Wild Flowers of Cleveland Cleveland County Council

Weir A., Allison, N.

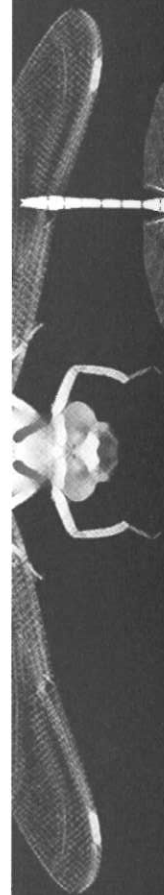
Wildlife Habitats in Cleveland 'A Report on the findings of the Phase I Survey'



Appendix



| SPECIES | STATUS | REASON FOR CONSIDERATION | INCLUDED ON FINAL LIST |
|--|---|--------------------------|------------------------|
| Common frog | Widespread but declining. 60 records as part of the Wild Pond Survey, also common in Garden Ponds. Still fairly common in most areas of the county. | UK, S, CV | * |
| Common lizard | Significant colony present at South Gare. | CV | * |
| Sea lamprey | Presence confirmed on the Tees. | UK | * |
| a ground beetle (<i>Carabus nitens</i>) | Nationally very local and uncommon | S | * |
| a water beetle (<i>Hydroporus rufifrons</i>) | Long list species. Very rare. Found locally only at Hart Bog. | UK, S | * |
| Ringlet (<i>Aphantopus hyperantus</i>) | Becoming increasingly common in grassland habitats locally. | S | |
| Common hawkler (<i>Aeshna juncea</i>) | Widespread and common in the area found at various locations, numerous on Eston Hills. | T, CV | * |
| Emerald damselfly (<i>Lestes sponsa</i>) | Occurs throughout British Isles and can be locally common if there are suitable habitats. Good water quality indicator. In our area this species is rather rare, having declined. | S | * |
| a gastropod (<i>Ashfordia granulata</i>) | Known to be present. | UK, S | * |
| least minor moth (<i>Photedes captiuncula</i>) | Known to be present | UK, S | * |
| Tortula freibergii | Known to be present | UK, S | * |
| Field maple (<i>Acer campestre</i>) | Occurs in woodlands in SW and E of county where it may well be native. An occasional hedgerow tree, also planted along walkways. | S | * |
| Bluebell (<i>Hyacinthoides non-scripta</i>) | Widespread in deciduous woodland in the county. | UK, T, CV | * |
| Sundew (<i>Drosera rotundifolia</i>) | Found in some areas of sphagnum bog on the NY moors. Occasional on Eston Hills and Hart Bog. | S, CV | * |
| Scarlet pimpernel (<i>Anagallis arvensis</i>) | Found along edges of arable fields, occasional weed of gardens and on waste ground where there is not much competition. Locally common. | S, CV | |
| Viper's bugloss (<i>Echium vulgare</i>) | Found in some areas on wasteland, basic slag and coastal cliffs. | T, S, CV | |
| Sea lavender (<i>Limonium vulgare</i>) | Found in saltmarsh and on sea walls, most common along Greatham Creek and in the Greatham marshes. | T, CV | * |
| Wild cabbage (<i>Brassica oleracea</i>) | Occurs on cliffs of Cowbar and Staithes. Probably introduced, it is a very local plant of some sea cliffs of SE and SW England and parts of Wales. | T, S, CV | |
| Floating water crowfoot (<i>Ranunculus fluitans</i>) | Rare in the county, present at only 5 - 8 sites. Found in shallow reaches of the Tees and also at two sites in Redcar & Cleveland. | UK, S | * |
| Burnt-tip orchid (<i>Orchis ustulata</i>) | Very rare plant found on dune grassland in north of the county at Hart Warren. | UK, S | * |
| Yellow flag (<i>Iris pseudacorus</i>) | Found in most areas of the county around ponds, in ditches and by waterways. Rarer in east of county. | T, CV | |
| Yellow-wort (<i>Blackstonia perfoliata</i>) | Frequently found on basic slag areas in the county. Mostly on industrial sites of Tees estuary but also in large numbers coast in Skinningrove area. | T | |
| Wild thyme (<i>Thymus praecox</i>) | Found on short turf grassland in a few places along the coast. In small amounts in the Tees and Leven valleys. | S, CV | * |
| Bird's foot trefoil (<i>Lotus corniculatus</i>) | Found on short turf grassland, banksides, wasteland and coastal sites throughout the county. | T | |
| Harebell (<i>Campanula rotundifolia</i>) | Found in dry grassy places and fixed dunes more or less throughout the county. T | | |
| Greater burnet (<i>Sanguisorba officinalis</i>) | Found in damp grassy places, road and track verges. Mainly in W of county, local elsewhere. | T | |



The Tees Valley 50 - Results of Initial Consultation

A list of priority species was compiled and circulated for comment. The following is the initial list with an indication of which were included on the final priority list. The reasons for their selection as target species are indicated as follows; (please note that some species may have been selected for more than one reason)

UK UK Steering Group Report listed

T Typicality - a species which is strongly associated with, or characteristic of, a particular habitat eg. bluebells in woodlands

CV Cultural Value, or locally characteristic. Includes species which are familiar eg. Barn owl.

S Scarcity. Species which are locally and/or nationally scarce or declining. Especially if the species 'should' be more widespread.

| SPECIES | STATUS | REASON FOR CONSIDERATION | INCLUDED ON FINAL LIST |
|--|--|--------------------------|------------------------|
| Water vole | Under-recorded until recently when surveys have found populations on many urban/industrial becks and streams. | UK, S, CV | * |
| Brown hare | Under-recorded. Well noted on industrial grasslands around the North Tees, ICI Billingham, British Chrome and British Steel. | UK, S | * |
| Common seal | Frequently observed around the coast and common at Seal Sands where up to 35 have been observed. The Tees estuary has 0.2% of the UK breeding population. | UK, S | |
| European otter | Otters known to be moving through the area. Sightings on the Rivers Tees and Leven and in National Park. | UK, S, CV | |
| Bats, incl. Pipistrelle Daubenton's Noctule Brown long-eared Natterer's Brandt's | Populations difficult to assess. All known to be present locally. | UK, S | * |



| SPECIES | STATUS | REASON FOR CONSIDERATION | INCLUDED ON FINAL LIST |
|--------------------|---|--------------------------|------------------------|
| Grey partridge | Fairly common resident. Breeding population is estimated at about 700 - 800 pairs but there has been a recent dramatic reduction. | UK, S | * |
| Song thrush | Common resident, passage and winter visitor. The breeding population is estimated at 1 500 - 2 000 pairs. | UK, T | * |
| Skylark | Locally a common breeding bird with an estimated population of 700 - 900 breeding pairs. There has been a decline over the last 10 - 20 years. | UK, S | * |
| Tree sparrow | Widespread but not very numerous. In 1993 there were 130-150 breeding pairs and 330 wintering birds. | UK, S | * |
| Pochard | Rare breeder, fairly common on passage and in winter. There has been some breeding around Teesmouth. | UK, S | * |
| Nuthatch | Scarce resident with a fairly stable breeding population of 8 - 10 pairs. | UK, S | |
| Merlin | Irregular breeder, scarce in winter except for in NYMNP area where at least 5 breeding pairs are known. | UK, S, CV | * |
| Water rail | Scarce resident and winter visitor. Occasional breeders, but up to 10-20 pairs are seen each winter. There has been a decline in numbers. | UK, S | |
| Ringed plover | Scarce breeder, fairly common passage and winter visitor. At Teesmouth the present breeding population is about 70-80 pairs. | UK, S | * |
| Lapwing | Northern England is now one of the more important areas. Locally it is a common breeder and abundant visitor. Declining, the breeding population is now about 800 - 1 000 pairs. | UK, S | |
| Snipe | Scarce breeder, common passage and winter visitor. Highest count is 100-150 birds. Probably no more than 4 - 5 breeding pairs now due to the dramatic reduction of the Tees marshes. | UK, S | * |
| Curlew | This species has undergone considerable decline in recent years. Fairly common breeder, on passage and in winter. About 40 pairs breed on North York Moors. More abundant in passage with a maximum count of 1 900 birds in 1984. | UK, S | * |
| Redshank | Breeding in fair numbers, common on passage and in winter. Over 40 breeding pairs, maximum count 1 900 birds in 1984. | UK, S | * |
| Reed warbler | Scarce breeding summer and passage visitor. Seems to be breeding more often in the area. In 1987 there were probably 22-24 breeding pairs, this could be as high as 40 pairs by the year 2000. | UK, S | * |
| Little tern | Usually a scarce breeder although there has recently been an increase in numbers. In 1993 there were 45 breeding pairs. In 1998 there were 52 nesting pairs and around 67 fledged young. | UK, S, CV | * |
| Barn owl | Rare resident. Numbers in the county have declined in recent years due to lack of suitable nesting sites, however it is an attractive and charismatic species which could be encouraged to breed. | UK, S, CV | * |
| Sand martin | Scarce breeder, fairly common summer and passage visitor. Numbers in the county are variable. Main colony is along the riverbank at Preston Park. | UK, S | * |
| Yellow wagtail | Breeding population is estimated at around 30 pairs. Fairly common on passage. | UK, S | * |
| Great crested newt | Least common newt species nationally (although more common than the Palmate locally). Recorded at 13 sites in the Wild Pond Survey. Two main concentrations of sites, in SW Stockton District and in NE of county. 821 counted. | UK, S, CV | * |