



ENGLISH  
NATURE

# The Species Recovery Programme



working today  
for nature tomorrow



# The Species Recovery Programme

England's wildlife has inspired naturalists, poets, artists and musicians for centuries. The diversity of our animals, plants, and their habitats, is varied, complex and distinctively English. Reason enough for us to ensure we conserve our wealth of characteristic species. Unfortunately, some are endangered and others are on the brink of extinction. Even some once common animals and plants are now disappearing at a rate that is causing concern.

How many lapwings or yellowhammers have you seen lately? When did you last hear a skylark or a turtle dove? Although these birds are still quite common in some areas, they have now vanished from places where they used to be seen and heard regularly. This is sadly true of many lesser-known species as well.

The cirl bunting, for example, was once fairly common across southern Britain, but by 1989 its population had plummeted to just over 250 birds, restricted to south

Devon. In 1995 English Nature teamed up with a partner, the RSPB, to promote sympathetic farmland management. Thanks to a tremendous response from Devon farmers, by 1998 the population was estimated to have risen to over 900 birds. Work is continuing to boost numbers further, as the aim is not only to halt decline, but also to achieve the long-term survival of this species in the countryside. Success in reversing the fortunes of this bird, and many other species, owes much to English Nature's Species Recovery Programme.

In 1990 it was realised that despite decades of nature conservation, populations of some plants and animals were continuing to decline and an increasing number were becoming endangered. The Species Recovery Programme began work in 1991 on 13 species at a cost of £130,000. Now with an annual budget of over £1.2 million, some 400 species are receiving benefit from the Programme. A further 250 species have been identified as being in need of recovery work.

Roger Tidman/FLPA



Cirl bunting



# Species that have become **extinct** in the last 50 years



Roger Key/English Nature

- mouse-eared bat - mammal
- Essex emerald moth - moth
- Ivell's sea anemone - anemone
- Norfolk damselfly - dragonfly
- burbot - cold water fish
- horned dung beetle - beetle
- summer lady's tresses - flowering plant

## Examples of species in **decline**

- Mammals: water vole, pipistrelle bat, greater horseshoe bat, red squirrel
- Birds: corn bunting, skylark, spotted flycatcher
- Plants: cornflower, shore dock, red-tipped cudweed, starfruit
- Insects: southern damselfly, netted carpet moth, mole cricket, violet click beetle

All these species and several hundred more are included in the Species Recovery Programme.

# Threats to wildlife

Over the last century, habitats for wildlife have become both diminished in size and fragmented as a result of farming practices, the growth of urban and industrial areas, and our transport networks.

For plants and animals that cannot easily move about, this reduction and breaking up of the countryside is a real barrier to their survival. They become restricted to isolated and shrinking habitats, unable to colonise areas elsewhere and establish new populations. For example, the sand lizard has suffered in this way, with the isolation and disappearance of heathland.

The decline of 'traditional' methods of managing the countryside such as haymaking, hedge laying and coppicing, which benefit our native wildlife, is also a threat. These methods are now confined to a limited number of sites, many of which are nature reserves.

Pollution of air, water and land, changes our environment and threatens the continued survival of many species.

The Species Recovery Programme is designed to redress the balance and help maintain our 'biodiversity' - the richness and variety of wildlife around us. English Nature believes that everyone should be able to enjoy a greater wealth of wildlife and a healthy countryside, and that we should be able to pass on a rich, diversity of animals and plants to future generations.



Peter Wakely/English Nature

M. J. Hammer/English Nature

# A new approach to conservation

Traditionally, species conservation centred on maintaining plants and animals by legal protection and general habitat management. The Species Recovery Programme extends the ‘traditional’ approach by identifying and actively targeting the needs of individual plants and animals, and encouraging practical action that ensures a rapid progression from planning to management trials of both species and habitat.

New ways have been found to boost species populations by moving some animals and plants from large established populations to restored habitats elsewhere, or through re-introductions using captive bred animals and propagated plants. New approaches to restoring habitats have been developed using modern farm tools such as excavators and tractors. Increases in funding produced a new age of ecological research and stimulated a revival of interest in natural history. The learning from this has driven further innovative approaches to species conservation.

This approach does not just apply to a plant or animal close to extinction. Species such as the water vole and skylark, whose numbers are falling, are included too. Generally, for such widespread species the main job is encouraging appropriate management of the whole countryside by influencing changes in attitude, policy and legislation.

The Species Recovery Programme follows five action steps, each supported by research and monitoring. The final step is reached when the populations of the targeted animal or plant are judged sufficiently recovered to be maintained by good habitat management practice.



Paul Grendell/English Nature

Modern machinery plays its part in habitat restoration

<b>Supporting activities</b>	<b>1 Learning</b> Where it was, where it is, where it might be
Scientific research	<b>2 Halting decline</b> What threats exist and why Manage threats to prevent extinction
Genetics	<b>3 Increasing populations</b> Measure population increase for 3 years where appropriate Programme of re-introduction
Captive breeding/propagation	<b>4 Extending range</b> Develop new populations across previous range
Monitoring	<b>5 Recovery</b> Species populations considered safe and habitats secure



Searching a quadrat for plants at Butser Hill NNR

# Working in partnership

Partnerships are encouraged by English Nature, and make an important contribution to the Species Recovery Programme. Almost every project has one or more partners, so the true value of the work undertaken, doubles or even triples the resources put in by English Nature.

Over 100 partners are involved in current projects and these include voluntary organisations, zoos, botanic gardens, museums, research institutes, and private companies.

## Partnership benefits include:

- Sharing resources to achieve better value from limited budgets.
- Attracting skills and specialist knowledge into the programme.
- Strengthening bids to alter UK and European protection laws. Partnerships with international organisations are particularly valuable when dealing with migratory species.
- Increasing the awareness and involvement of many people in species conservation.

Thousands of volunteers contribute their time and energy on hundreds of local projects throughout England. Their invaluable work includes such tasks as surveying and monitoring populations of plants and animals, and managing their habitats.



## Field cricket

An example of 'species recovery' in action is the story of the field cricket. Although never common in England, they were a familiar sight and sound on some southern heaths and downs two hundred years ago. By 1990 the population had shrunk to just one small site in West Sussex.

The main reason for this decline was the loss of habitat. One former site now lies under an oil refinery and many others have been turned over to agriculture. Initial recovery work concentrated on finding out

the insect's habitat requirements and assessing suitable sites for re-introduction.

The next step was to set up a captive breeding programme. In 1991, a partnership was entered into with London Zoo's Invertebrate Conservation Centre to establish a breeding population. Work was also started to restore some of the crickets' former sites back to a suitable condition for re-introduction. Captive bred crickets were then released on to the restored areas.

As a result the field cricket has now been returned to six sites across Hampshire, Surrey and Sussex. Media interest has included a BBC documentary following the progress of the captive crickets at London Zoo and their subsequent release into the countryside.

B B Casal/FLPA







# Lady's slipper orchid

The term 'endangered' is never more appropriate than when applied to the lady's slipper orchid. Victorian plant collectors had reduced its wild population to a single flowering plant. The story of its recovery illustrates both the challenges and successes of active species management.

Fears that this last plant would disappear meant that it has been guarded when in flower since the 1970's. The lady's slipper orchid became the subject for trials of artificial propagation methods at the Royal Botanic Gardens, Kew. A major problem for recovery programmes involving plants is finding true 'wild' stock. This problem is compounded when propagating orchids, as the plants normally germinate only in association with a specific fungus.

By pooling the specialist knowledge of European experts in orchid breeding, a method was found of successfully germinating seedlings without the fungal partner. The first laboratory-grown plants were re-introduced back to a former site in 1989, and one flowered for the first time in the summer of 2000.

The Species Recovery Programme's aim is to populate 12 sites by 2004. The longer-term goal is to establish thriving populations of the lady's slipper orchid throughout the plant's historic range. Over 1,500 plants have now been planted in more than a dozen localities. However, survival rates are not high and the next challenge is to improve our understanding of the plant's requirements in the wild.





Paul Lacey/English Nature

John Robinson



## Dormouse

With its big, dark eyes, orange fur and bushy tail, the dormouse is an attractive and appealing

animal and has become a firm favourite of the public, and an emblem of the Species Recovery Programme.

Dormice live in woodland and thick hedges. Here they feed on buds, flowers and insects in the tangled branches and shrubs, usually only venturing to the ground in the colder months to hibernate amongst the leaf litter. During the last century the dormouse became extinct from half its former range in England due to the isolation and loss of suitable woodland habitat. The destruction and poor management of hedgerows also increased their isolation by removing safe routes to new areas.

Since 1994 there have been a number of successful re-introductions of dormice back into restored woods from which they have become extinct. A programme of hedgerow and woodland management to extend and link areas suitable for dormice is underway. Working with the People's Trust for Endangered Species, Royal Holloway College and several zoos, English Nature plans to continue dormice re-introductions to restored areas.

The dormouse is one of a number of species that has especially benefited from volunteer action. In 1993, over 6,000 people took part in The Great Nut Hunt, the largest-ever survey of dormice undertaken. As the dormice themselves are difficult to see, volunteer searchers were asked to look for characteristically nibbled hazel nuts as evidence of their presence. This 'nut hunt' will be repeated periodically, to check on the dormouse's recovery.



# Bittern

The bittern is an elusive bird, the male's booming

mating call is, typically, the only clue to its presence. Confined mainly to the East coast, the Norfolk Broads and Lancashire coast, they are occasionally seen elsewhere during the winter when resident birds are joined by others from the continent. Bitterns feed mainly on fish, especially eels, and are birds of shallow reedbeds, preferably with dykes and open water areas. These sites need to be carefully managed otherwise they tend to dry out and become covered by scrub.

Lack of suitable reedbed management, coupled with trophy hunting, is thought to have led to bitterns becoming extinct as a British species during the 19<sup>th</sup> century. They began to breed again in Britain in 1911, and by 1954, there were about 80 'booming' birds recorded. However, they had declined to just 11 or 12 booming males in 1997.

Species Recovery Programme funding helped set up English Nature's Bittern Recovery Project, in partnership with the RSPB. Work is concentrating on both improving existing habitats and looking to create new sites in suitable areas. For example, where coastal reedbeds are threatened by rising sea levels, it may be possible to extend them inland, and construct defences to hold the sea back. Agricultural land in danger from the sea, may also be turned into suitable habitat for bitterns, funded through grants such as the Countryside Stewardship Scheme.

Studies to monitor the movements of young birds using rings and radio tags will provide information on dispersal and winter-feeding sites. As a result of these actions, the number of booming males heard has increased every year since 1997, and exceeded 30 in 2001.

Hellio & Van Ingen/NHPA





# Species Recovery Programme and the UK Biodiversity Action Plan

The Earth Summit in Rio de Janeiro was convened by the United Nations in 1992, in recognition that the continued exploitation of the earth's natural resources, and the remorseless destruction of habitats, would lead to the extinction of a large number of species and so impoverish the planet. This was the largest ever gathering of world leaders and more than 150 countries signed the Convention on Biological Diversity.

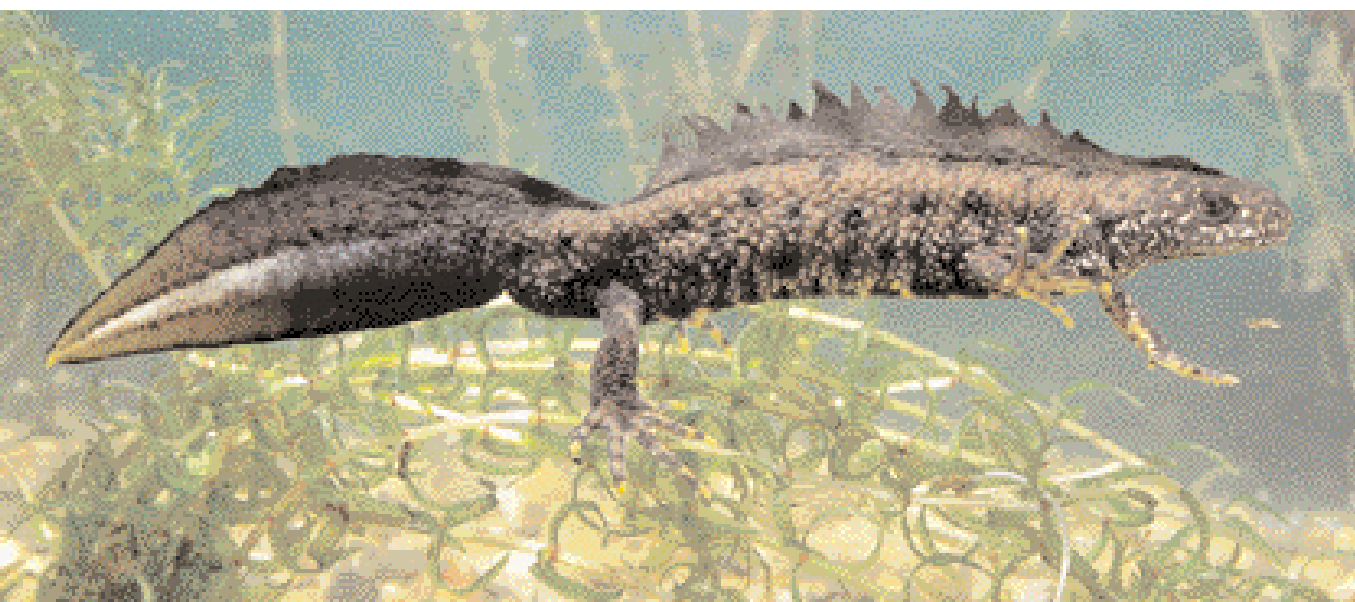
Britain was amongst the first countries to demonstrate its commitment by publishing the UK Biodiversity Action Plan (UKBAP) as a blueprint for future conservation work.

The Species Recovery Programme's structured and objective approach influenced the UK Biodiversity Steering Group's drafting

of the Biodiversity Action Plans. These plans set conservation targets for the 391 species and 45 habitats considered as 'priority'.

English Nature leads on the Action Plans for over 90 species and 15 habitats, and is closely involved with many of the others. The Species Recovery Programme encompasses all Action Plans and takes responsibility for internationally endangered species identified under the 1992 European Habitats Directive, such as the great-crested newt.

Most English animals and plants occur in other European countries. The Species Recovery Programme has forged partnerships with many European conservation partners to enable knowledge and good management practices to be shared for the benefit of these species.

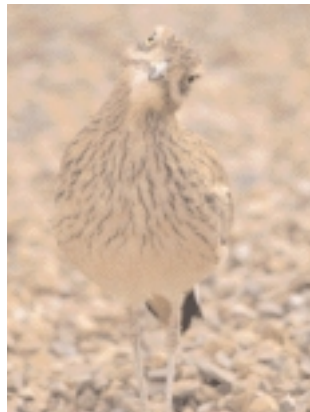


Derek Middleton/FLPA



# Landscape and Habitats

Most Species Recovery Programmes depend on the maintenance or restoration of habitats. One such habitat is the chalk grassland of the English Downs, acknowledged for its historic value as one of the oldest examples of man's influence on the landscape.



This habitat provides a home for hundreds of kinds of plants and animals, 46 of which are priority species and are included in the Species Recovery Programme. Recovery work on this habitat is benefiting rare plants such as the early spider orchid, and hoary rock-rose, as well as mosses and lichens. Birds such as the stone curlew and quail, and insects like the Adonis blue butterfly, field cricket, the cistus forester moth and hornet robberfly are also increasing their numbers.

The Species Recovery Programme doesn't just benefit the targeted species. The populations of the other plants and animals that share these habitats can receive a boost indirectly through improved habitat management. We have also learned more about the ecology of these other species, information that could prove vital for their long-term survival.



## Looking to the future

The Species Recovery Programme has stimulated a fresh approach to nature conservation. It has encouraged more academic interest in the lives of our animals and plants, using the latest techniques in genetic research, captive breeding and artificial propagation. It has challenged traditional approaches to conservation by developing and demonstrating radically different ways to manage the recovery of species and their habitats.

Over the first ten years, the populations of 44 species of plant and animal have been increased, and work continues to improve the prospects for many more. But the Species Recovery Programme still has much to achieve. Recovery plans for each species often extend over many years. Ensuring that targets are achievable requires care in the

preparation of each plan. As it is difficult to determine how successful the recovery action has been in the short term, long term monitoring is required to ensure that recovered populations are sustained and secure. Plans may be adjusted as progress is measured and new knowledge gained.

The Species Recovery Programme has shown what can be done. If the same energy and co-operation that has existed for the first ten years continues, then it will achieve its goal of maintaining and enhancing England's own characteristic and highly valued biodiversity.

**You can find out more about English Nature's Species Recovery Programme on our website [www.english-nature.org.uk](http://www.english-nature.org.uk)**





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English Nature is the Government agency that champions the conservation of wildlife and natural features throughout England.

This is one of a range of publications published by:

External Relations Team

English Nature

Northminster House

Peterborough PE1 1UA

[www.english-nature.org.uk](http://www.english-nature.org.uk)

© English Nature 2001

ISBN 1 85716 582 9

Catalogue code: IN7.3

Printed by Abbey Print Ltd. on Evolution Satin, 75% recycled post-consumer waste paper, Elemental Chlorine Free.

Designed by Coral Design Management, 15M.

Front cover photographs

main: ladybird spider. B Borrell/FLPA

left top: devil's bolete. H Schrempp/FLPA

left bottom: pasque flower. Peter Wakely/English Nature

Inside cover photographs

front: red squirrel. Andy Rouse/NHPA

back: Derbyshire Dales NNR. Peter Wakely/English Nature



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