



## Safe at last Healing the wounds of peat extraction

### NFU Awards

The Biodiversity Award  
finalists share their success

### Haven for birds

Managing Holkham's  
world-class ornithological site

### Best is yet to come

Bringing SSSIs up to  
favourable condition

English Nature is the statutory body which achieves, enables and promotes nature conservation in England.

We do so by working in partnership with individuals and a wide range of organisations including Government, representative bodies, agencies and voluntary organisations.

English Nature Magazine is published six times a year to promote nature conservation in England and make people aware of the latest developments. The views expressed in it by individuals are not necessarily those of English Nature.

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We operate a number of other offices across the country, from where our staff deal with local nature conservation issues.

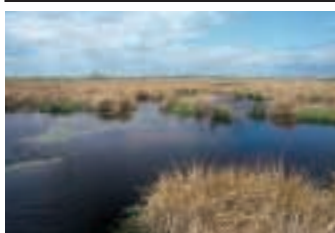
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[www.english-nature.org.uk](http://www.english-nature.org.uk)



Awarded for excellence

Cover picture



Cover photograph: Peter Wakely/English Nature  
Humberhead Peatlands NNR. While this area of Thorne Moor may be untouched, adjoining areas have been heavily worked for peat. A £17m deal has halted this excavation and the focus is now on regeneration – see the full article starting on page 8.

# brief update

## Award-winning volunteers

Wildlife experts Peter Day (left) and David Clarke were presented with outstanding long service awards from English Nature after the dedicated pair notched up 40 years as volunteer wardens for Rostherne Mere National Nature Reserve (NNR), near Knutsford.

Mr Clarke said, "The NNR is a bird watcher's paradise. Over the years, we've had everything from little shearwaters and bitterns to ospreys. Winter is an ideal time to come and see tufted duck, cormorants, pochard and gadwall."



Gareth Griffiths/Angel Torrey Associates

## Lottery grants aid Foot and Mouth recovery

English Nature has welcomed Heritage Lottery Fund grants worth nearly £260,000 to help the future of wildlife in Wiltshire and the North East in the wake of Foot and Mouth disease.

A third of the cash will be used to help restore traditional grazing to the flower-rich meadows and downland of Wiltshire. The money will be used to work with the local farming community to find the best animals to graze these herb-rich pastures.

English Nature will employ a Grazing Project Officer, who will work with the RSPB and Wiltshire Wildlife Trust

to get local people involved.

The rest of the money will be used for two community projects in the North East. Nearly £70,000 will be spent on Pastures for People, a two-year project in East Durham and Cleveland that will help establish links between land owners, who manage sites rich in rare plants and animals, and owners of cattle and sheep looking for grazing land.

The future now looks brighter for the Durham subspecies of the northern brown argus butterfly, unique to County Durham, which lays its eggs on the rock-rose and relies on

grazing to prevent its being smothered by scrub.

Approximately £100,000 will go to Natural Links, a project celebrating the natural and cultural heritage of Moor House and Upper Teesdale National Nature Reserve. Local volunteers living and working around England's second largest NNR will be involved.

Sir Martin Doughty, Chair of English Nature, said, "Helping local farming communities recover from the impacts of Foot and Mouth disease is very important to English Nature because so much of our wildlife is in their hands."

## Return of the Willow Man



Will de la Hay

This 40ft Willow Man sculpture located over the M5, just north of Bridgwater, has been brought back to life after arsonists burnt him down last year. Local artist Serena de la Hay was asked to make a replica after public support for his comeback. This time, he should be a lot safer as he is now surrounded by an acre of wet reedbed.

## Oil spill update

The threat of an oil spill that might harm habitats and wildlife, including some rare species, filled newspapers at the beginning of the year, when the MV Willy oil tanker, containing 46 tonnes of fuel oil, ran aground in Plymouth Sound.

English Nature was particularly concerned the ship could harm wildlife around Plymouth's Sound and Estuaries Special Area of Conservation (SAC) and Special Protection Area (SPA).

After eight days of worry, the boat was eventually shipped over to Falmouth, Cornwall, out of harm's way.

Chairman of the Emergency Environment Group, called in to advise on the spill, English Nature's Phil Collins said, "There was a risk to wildlife at the time, but the only harm appears to be minor damage to rocks where the ship hit them. We are continuing to monitor any long-term impact. It was certainly a learning experience. We can build on the knowledge we gained to improve the protection of the environment in future incidents."

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## NEWS IN SHORT

### Bird paradise

Barn Elms Wetland Centre, situated just four miles from the heart of the city of London, has been notified as a Site of Special Scientific Interest (SSSI). The centre is a result of a unique scheme by the Wildfowl and Wetlands Trust (WWT) to create a wildlife reserve from redundant Victorian reservoirs in just five years.

The SSSI is made up of a mosaic of different wetland habitats of shallow open water, grazing marsh and reed-beds and attracts more than 140 species of birds, including internationally important numbers of gadwall and shoveler duck.

### NNRs available on-line

Why not brighten up your computer screen by downloading a new screensaver from English Nature's web site at [www.english-nature.org.uk](http://www.english-nature.org.uk). The screensaver reveals pictures and facts about 12 National Nature Reserves (NNRs).

### Go wild at home

Wildlife at Chippenham Fen NNR can now be enjoyed from the comfort of your own home as a free video of the site has been made by the NNR's conservation team.

The 20-minute video was made as part of English Nature's Open Meeting Programme, aimed at making more people aware of the organisation, and getting them more involved in English Nature projects.

Chippenham Fen Conservation Manager, Nick Sibbett, said, "The video is great. It highlights the wildlife across the NNR, including birds, insects and rare flowers, and includes interviews with land owners, volunteers and contractors involved with the site."

For a copy of the video, contact Two Ten Communications on 0870 1214 177.

### Flora power

The Winter 2001 *Flora English Nature*, outlining some of the key botanical projects that English Nature is involved in, is available from the Enquiry Service on 01733 455100.

# brief update

## WHEN NATURE CALLS

The view from the windows of the Enquiry Service is a typically urban scene – you can see a multi-storey car park and an office block with a hedge and a few trees. So it is surprising that there is such a wealth of creatures which enliven the average day.

A kestrel regularly drifts up the street to perch on the office block, and a sparrowhawk soars overhead on most fine days. In summer, butterflies flutter against the glass and, last Autumn, a woodcock passed by.

The richness of city and garden wildlife is reflected in the questions the Enquiry Service deals with. Recently we have had several enquiries about frogs being found dead in or near ponds. It may be that this is “winterkill”, where frogs have overwintered in ponds and ice has formed, causing vegetation to rot and oxygen levels to crash, and resulting in the death of the amphibians. Sometimes frogs can simply be frozen to death in shallow ponds.

Frogs also suffer from viruses and my colleague Sue and I have read up on this, so we are ready for any more questions about frog mortality. As the season moves on, we will also be ready to answer other “froggy” questions on spawn and wriggling tadpoles.

By Dick Seamons  
English Nature's Enquiry Service

## People and Wildlife event

Sir Martin Doughty welcomed guests, including Margaret Beckett, to English Nature's first People and Wildlife event. Professor Chris Baines gave the keynote speech and presented four case studies illustrating different aspects of the work which has been carried out. English Nature's new “People and Wildlife – working together” booklet can be obtained from the Enquiry Service.



(Left to right) English Nature Conservation Officer Graham Steven, Acting Chief Executive for English Nature Andy Brown, Kye Askins from Durham University, Chair of English Nature Sir Martin Doughty, The Right Honourable Margaret Beckett, Secretary of State for Environment, Food and Rural Affairs, Environmental Consultant Dusty Gedge, Dr Sue Antrobus from Middlesbrough Council and Professor Chris Baines

## Now is the time for... bluebells

As English Nature experts share their knowledge of wildlife through the seasons, Ian Taylor, a botanical adviser based in Cumbria, explains why bluebells should not be taken for granted.

“We are apt to be a bit blasé about our native bluebell *Hyacinthoides non-scripta* – a plant that is largely restricted to woodlands on the western fringes of Europe, and reaching its greatest abundance in Britain. Here it even occurs in non-wooded habitats, such as on bracken-covered hillsides and coastal cliff slopes in Devon and Cornwall, Wales and the far northwest of Scotland.

“The UK holds an estimated 25 to 30 per cent of the world's bluebells – which means we have a big responsibility for the global conservation of this species. And conservation action is certainly needed...

“Each spring, unscrupulous bulb-collectors seek out wild bluebells to plunder for sale, often ‘in the green’ (i.e. in leaf), to unsuspecting gardeners – which is why bluebells were added to the list of specially protected plants in 1998, making it illegal to sell or offer bluebells without a licence.

“The soft, fleshy leaves of bluebells appear early in the year – before those of the tree



canopy – to build up food reserves for next year's floral display. Trampling feet can easily crush these leaves – jeopardising future flowering – and in some woods, particularly in or close to urban areas, this is a real problem. Leaves can also be grazed, with domestic livestock and muntjac deer having a damaging impact on some populations.

“Nevertheless, visitors from all over the world are always surprised and delighted at the sight – and smell – of our springtime bluebell woods.”

## Countryside co-operation in action

Fields of grazing animals are the image of the countryside and at the heart of the Local Grazing Scheme – aiming to bring people together in supporting rural communities.

Since 1999 the UK Grazing Animals Project (GAP), a partnership project co-ordinated by English Nature, has been developing the Local Grazing Schemes initiative through a series of workshops with grazing industry partners. In September 2001 GAP launched its *Local Grazing Scheme Guide – co-operating together to deliver grazing on wildlife sites* which presents the combined wisdom from nearly 200 people who attended the workshops. The guide is aimed at helping people when setting up and developing a collaborative approach to grazing.

“The project has particularly looked at how grazing can contribute to employment in the countryside – through all the many people that are involved in getting from the ‘grass blade to the meat joint’,” said John Bacon, GAP Co-ordinator for English Nature.

Bill Grayson, GAP's Local Grazing Scheme National Co-ordinator said, “The diagram here shows the concept of ‘localness’. That is grazing *local* sites, using *local* stock that are managed by *local* skilled stockpersons, and producing meat that is



processed through *local* abattoirs and sold to *local* consumers, who can see and visit their *local* countryside sites being managed for their benefit and enjoyment.”

John added, “These features are central to Local Grazing Schemes, which can only function effectively as long as all the different links in the food chain are present and people are committed to working together.”

Anyone interested in either developing a local grazing scheme, learning from the 20 pilot schemes under development or obtaining a copy of the *Local Grazing Scheme Guide* can contact Bill Grayson, GAP's LGS Project Co-ordinator at Strathairlie, Carr Bank Road, Milnthorpe, Cumbria LA7 7LE

Tel 01524 761347  
e-mail: billgrayson@farmersweekly.com



## NEWS IN SHORT

### Urban BAP gets off the ground

Britain's first Urban Biodiversity Project Officer has been appointed to help implement a Biodiversity Action Plan (BAP) called ‘Wildlife on your doorstep’ for the urban areas of Surrey. Surrey County Council is funding the role and English Nature is helping to fund the project, along with Guildford, Reigate and Banstead and Woking Borough Councils and Tandridge District Council.

Leah Mathias took up the role last December and has been contracted for 12 months. She said, “We’ve done all the talking for the project – now it’s time for action! We are currently working with existing community groups to help them get their urban wildlife projects off the ground, and we are looking at ways we can move forward in the future. An important part of the project is promoting English Nature's accessible natural green space criteria.”

Leah can be contacted at  
leah.mathias@surreycc.gov.uk

### Right to roam

The public consultation over the Countryside Agency's Access to the Countryside map for the South East and North West has been completed. However, there is an opportunity to appeal later in the year. English Nature will continue to advise the Agency on nature conservation issues surrounding the proposed access land as the rest of the country's maps are drawn up. One of the advisers, Jenny Bowen, said, “Access and wildlife can go well together – just look at the many wildlife sites which are already open to the public. We’re advising the Agency on vulnerable habitats or species where access restriction may be necessary. But, ultimately, we want people to be able to see the varied wildlife across England.”

The maps are set to be completed by the end of 2004.

If you have any queries about the maps, contact the Countryside Agency Helpline on 0845 100 3298.

# Rewarding wildlife friendly farming



Active involvement to protect the countryside is a passion among many farmers and one which English Nature supports wholeheartedly through involvement with the National Farmers' Union (NFU) President's Awards.

The Biodiversity Award is sponsored by English Nature to encourage wildlife friendly, environmentally sustainable farming.

This year's applications showcased some of the outstanding conservation being carried out across our countryside, with farmers reaping results ranging from nesting red kites to regular visits by otters and thriving populations of scarce arable plants such as the rare Venus's-looking-glass.

The awards give recognition for conservation activities but, through prize money totalling £10,000, also



## Winner Mays Farm, Oxfordshire

David Passmore's mixed farm has arable crops as well as sheep and a beef herd, and is managed in a ley rotation. Undersown fields are left through the winter to provide valuable foraging areas for birds, and the new grass leys mean no cattle have needed worming for over 40 years at the farm. Subsequent arable crops then require much lower chemical inputs. David's conservation work also includes cutting hedgerows late and maintaining a wooded area for wildlife. Grey partridges, lapwings, corn buntings and skylarks are among many birds that flourish at the site along with sparrowhawks, buzzards and red kites. Rare arable plants also flourish, such as prickly

poppy, corn spurrey and dwarf spurge.

"We are a living, working farm and use both traditional and modern methods which are good farming practice, but are also helping to maintain wildlife," David said. "The key is making conservation fit with profitable farming. It is a holistic approach; many small elements are together making a big difference. Each year we learn more about what we can do."

David plans to use the £6,000 Award to plant further hedges for nesting and foraging birds and to act as wildlife corridors. He also aims to carry out farmland research towards sustaining wildlife in the long term.



(L-R) Sir Martin Doughty, Chair of English Nature, Ben Gill, president of NFU and David Passmore, the national winner of the NFU President's Awards

provide funding for new wildlife projects to help achieve UK Biodiversity Action Plan targets for priority species and habitats. Farmers have a vital role to play in this area of conservation as many priority species depend on farmland habitats.

The 2002 awards took place at the Hilton Metropole in London on 6 February and, following a hard fought competition, Oxfordshire farmer, David Passmore, was announced the winner for conservation work at his mixed arable and livestock farm at Ewelme in Wallingford. Nicholas Watts of Deeping St Nicholas near Spalding, Lincolnshire, was awarded with the runners-up prize. English Nature

## Runner-up Vine House Farm, Lincolnshire

Nearly three decades of conservation work has been carried out at Vine House, which farms arable crops using conventional and organic methods. In that time Nicholas Watts has developed many initiatives including wildflower meadows, ponds, new hedges and altered spraying practices to suit breeding birds. These have all led to an increase in wild bird populations on the farm, which is home to barn owls, reed buntings, corn buntings, warblers, whitethroats and many other species.

"Increasingly our customers are not just looking for food produced at

rock-bottom prices. They are looking for food produced by farmers who are looking after the countryside," Nicholas said. "Vine House Farm has risen to that challenge. We hold open days annually and hundreds of people have visited the farm to see how modern day farming can be integrated with care for the countryside."

With the £4,000 prize money, Nicholas plans to dig a pond and accompanying wet area and sow a wildflower meadow, as well as establish a new hedge along newly purchased land to be managed for wildlife.

Council member Anne Kelart said, "This year's finalists clearly show just how much farmers can contribute to nature conservation. Innovative techniques at the heart of their farming practice provide a superb example of practical ways in which farmers can contribute significantly to the

enhancement of wildlife and national biodiversity targets."

Sir Martin Doughty, Chair of English Nature, added, "Farming has created much of the characteristic features of the British countryside. To maintain and enhance the biodiversity on which our



## Regional winners

Across the country farmers have been developing conservation projects and taking active steps to protect the countryside. National finalists for the Awards are chosen from each of the seven NFU regions in England. Regional winners were each awarded a £200 cash prize and runners-up £100.

### Sir Nicholas Bacon, East Anglia

Sixty ponds are central to Raveningham Estate's diversity of plant and insect life, including voles, owls and woodpeckers, as well as several miles of hedgerow, beetle banks and an education centre.

### Mark Brooking, South West

A broadleaved wood has increased wildlife dramatically. Old water meadows have been put into Countryside Stewardship and new footpaths, owl nesting boxes and Devon banks installed.

### Ian Brown, North East

Restored grassy field margins and a farm boundary restoration plan have encouraged grey partridges, brown hares, yellowhammers and linnet. Wetland areas support frogs, newts and dragonflies, and the woodland attracts owls.

### Robin Neilson, West Midlands

Woodland and hedge planting, pond restoration and set-aside land have encouraged buzzards, kingfishers and hares to return to the estate. Otter holts, bat and bird boxes have been installed and access has been improved.

### Paul Swainson, North West

Miles of hedgerow have been enhanced with native trees and shrubs, and waterways cleaned out. Woods are protected from cattle and butterfly breeding and feeding areas have been created.

# Saving our peatlands for the future

English Nature has negotiated the early handover of one of the UK's largest areas of peatland from the Scotts Company, a major peat extractor. The £17 million deal will secure 1,526 ha – equivalent to 2,180 football pitches – of Thorne and Hatfield moors in South Yorkshire, and Wedholme Flow in Cumbria not already under English Nature protection and allow for a programme of restoration work. The agreement should also send out a powerful message that the future of horticulture lies in the use of peat alternatives, not peat-based products.

The deal – the biggest that English Nature has been involved in – completes the transfer of the land, which began in 1992 following an agreement with one of Scotts' predecessors, Fisons. This then gave English Nature most of the freehold rights to Hatfield and Thorne moors, Britain's largest complex lowland raised bog, and an area of Wedholme Flow in Cumbria, whilst retaining leases on some parts to carry on harvesting in a much reduced area. Although these sites are designated Sites of Special Scientific Interest (SSSIs), peat working takes precedence because planning permission to extract

the peat was granted in the 1950s before peat bogs were appreciated as an important resource to be conserved.

As a result of the negotiations in the early 1990s, Fisons handed over 1,280 hectares of peatland – now managed as a National Nature Reserve. That, combined with continued pressure by English Nature and voluntary organisations to reduce peat working, plus greater protection for key sites afforded by the EU Habitats and Species Directive, has paved the way for this deal.

Under the agreement, which has been funded by the Department for Environment, Food and Rural Affairs, Scotts will cease work on the Thorne and Wedholme moors immediately, but will continue to harvest parts of Hatfield Moor for a further two to three years. This will be in strict accordance

with management guidelines set down by English Nature and will help maintain the local workforce at Scotts' Hatfield processing factory as alternative products to peat are developed.

As well as purchasing Scotts' interest in the land and so halting peat extraction, English Nature is also enlisting Scotts' knowledge, expertise, workforce and hardware to help with the four-year restoration programme on each of the moors. Local English Nature teams in both Yorkshire and Cumbria are currently formulating plans to this end.

"This really is a major coup for English Nature," says English Nature's Senior Peatland Adviser, Roger Meade. "On the one hand, the largest peat bog SSSIs will no longer be affected by peat extraction. On the other, one of the biggest suppliers of peat is nailing its colours to the peat alternatives mast. I think it's only a matter of time before others choose to follow."

An aerial view of Wedholme Flow, Cumbria shows the scale of the workings



Frank Mawby/English Nature

## Peat – why so important?

Lowland peat bog is a nationally rare and endangered habitat, formed by a set of conditions that enable dead plant material to accumulate, but not decompose. This material forms the peat. It is a uniquely beautiful landscape, home to many species not found elsewhere, but because of its sensitivity to disturbance, as much as 90 per cent of England's peat bogs have already been lost during the last century. This has often been due to forestry or the creation of agricultural land, but in many cases, peat extraction. As a mineral, peat has many uses, but since the 1950s its horticultural properties have caused demand to soar. Now, 2.5 million m<sup>3</sup> of peat is bought in the UK every year, of which 95 per cent is for garden use. Scotts accounts for approximately 17 per cent of this market.

Needless to say, a significant portion of this peat has been taken from sites in England such as Hatfield, Thorne and Wedholme. In the past, peat was cut by hand, but nowadays it is removed by repeatedly skimming the peat off the surface with large machinery. Ultimately, this can strip away all the bog peat and vegetation – key to its regeneration – leaving large, barren tracts of the different and unsuitable fen peat or even mineral soil.

Having recognised the threat, the Government has set a target that 40 per cent of peat uses should be met by peat alternatives by 2005 and 90 per cent by 2010. Many companies are already producing peat alternative products – Scotts itself has spent more than £1 million on research into this area since 1990 – and this agreement should provide a further boost to the shift away from peat products. The ultimate goal is to halt all commercialised peat extraction and thereby safeguard the remaining peat bogs in England.

Scotts UK Managing Director Nick Kirkbride adds, "Our priority has always been to ensure that a responsible outcome was reached, and this is an example of how industry, government and voluntary conservation bodies can work effectively together to ensure a sensible outcome to a sensitive and

complex issue. This decision also marks a transition towards new, effective and sustainable growing media, where peat dilutents and peat alternative products will become ever more popular, for growing beautiful plants and vegetables."

## What the agreement entails

In short, English Nature is buying from Scotts its remaining interest in Thorne and Hatfield Moors and Wedholme Flow. This amounts to all the outstanding leases that Scotts has from English Nature and the leases on some land owned by local landowners. A certain amount of cut peat is also being bought and will be used in the restoration process.

While English Nature takes charge of Thorne and Wedholme straight away, the agreement allows Scotts to continue working a portion of the Hatfield site for a further two, at most three, years. So that the site provides the best conditions for recovery, the amount of peat that can be extracted during this time will be limited, and English Nature's local team is drawing up a plan for where this peat can be taken from. This is so that sufficient depth of bog peat, as opposed to fen peat, is left to aid restoration.

"We will be working very closely with Scotts to ensure that peat is taken off in a manner that will maximise the restoration potential," says Kevin Bull, Site Manager of the Humberhead Peatlands NNR, which encompasses Thorne and Hatfield moors.

Naturally, the deal needs to take more than environmental and commercial interests into account. Scotts currently employs some 60 staff at the Hatfield site and an immediate withdrawal from peat digging by the company would almost certainly mean redundancies. Therefore, a phased programme will keep the workforce employed for the next two to three years. Perhaps more significant is that English Nature is capitalising on Scotts' knowledge of the land, its techniques, the workforce and machinery by using it through a four year restoration plan that covers all three sites.

(Above left)  
Virgin peatland at  
Wedholme Flow,  
Cumbria.

(Background)  
Creating drainage  
ditches on Thorne  
Moors, South  
Yorkshire to aid  
peat extraction.

# before and after?

## Restoring the sites

Wedholme Flow and the two adjacent SSSI bogs, Glasson Moss and Bowness Common, which make up South Solway Mosses NNR, are three of the most important bogs in the UK in that they contain some of the best areas of original, intact, uncut mire (or bog). There is only an estimated 450 ha of such bog surface left in England and about 100 ha of this is on Wedholme.

“What this deal does for Wedholme is to protect the best areas from further damage,” says Frank Mawby, the NNR Site Manager. “But it also enhances the work that we have already done on half of the former peat cuttings and enables us to restore the whole bog complex.”

This restoration work will start on Wedholme and Thorne and on those parts of Hatfield where extraction has ceased, as soon as local plans are in place. It is no simple affair and plans will have to look at all physical aspects of the sites, from the physical condition of the peat, to the sluices and dams that control water levels.

“We have been restoring bogs since 1985 and I think we have been very much in the lead in restoration techniques,” adds Frank. “We have been imaginative in our methods and techniques and many have followed our

example. We have also looked far and wide for our inspiration including looking at what the Dutch, Germans and Canadians are doing.”

“Key to everything,” continues Kevin Bull, “is water hydrology – the controlling and sustaining of water levels. If we don’t get that right, then we don’t get the right kind of vegetation such as Sphagnum mosses and cotton grass that indicate peat-forming conditions. After we have assessed the condition of the site and its landforms, we need to block the drainage ditches and then decide where the dams need to go. Too much water and nothing will grow, not enough and we’ll find birch and bracken invading.

“Generally, we require stable water conditions throughout the year, ideally with a maximum of 20 cm in winter above ground level and within 10 cm of the surface at any other time of year.”

Bunding – low, artificial peat walls intended to reduce wave action and create sheltered areas for vegetation to grow – will follow natural contours and landforms wherever possible. However, it will be necessary in other areas to create small ‘cells’ averaging 2 ha in size from stockpiled peat or by taking a thin layer skimmed off the

surface. This could amount to 200,000 linear metres of bunding across Thorne and Hatfield alone.

Both the bunding and management plan as a whole, are based on trials successfully undertaken on Thorne Moors in conjunction with Sheffield University.

The plans will also need to take into account the complete absence on parts of the moors of plants crucial to peat regeneration. “Some parts have been completely stripped down to bare, brown peat,” continues Kevin, “no donor or ‘refugia’ plants left at all. Restoration plans will therefore include translocating plants from other parts of the moors or collecting seeds from plants, which can then be planted in the barren areas. We will then follow the growth or otherwise of these plants to measure regeneration.”

To qualify for selection under the Species and Habitats Directive, an area of cut-over peatland should be able to re-establish peat-forming vegetation over a 30-year period. “It wasn’t that long ago though when most of Hatfield Moor was virgin peatland,” says Kevin, who ironically used to work there as a boy stacking cut peat. “Walking on it, the turf would spring up and down – it would almost ripple.”

In the long term, regenerating Thorne Moors should return them to something of their former glory



① Wedholme Flow

② Thorne and Hatfield Moors

## The future

Returning Wedholme Flow, Thorne and Hatfield moors to something of their former glory is more than just an exercise in environmental restoration. As an endangered and rare habitat, lowland raised bog harbours many species that cannot, or rarely, exist elsewhere. Preserving the peatland will help safeguard species such as the European nightjar, large heath butterfly, bog bush cricket, mire pill beetle (a Red Data book species), the marsh andromeda and sundew to name but a few. But there are also hopes to create real links with the local community and public at large.

Says Jeff Lunn, Team Manager for English Nature’s Humber to Pennines Team, “It’s great to have the handover of land and the restoration to follow, but we must ensure we’re not left with a huge, fenced off area that people can’t visit. Over the next few years, we would like to see Hatfield and Thorne moors as a centre for peatland conservation and an area of great regional and local pride, rather than the wasteland that it has been seen by many in the past. We would also like it to be a flagship example of economic and social activity, one with high quality facilities that enables as many people as possible to visit the moors in a safe and secure way.”

For instance, a restored narrow-gauge mineral railway running through Thorne Moors would provide both management access and take visitors right into the heart of the moor. Interpretation facilities would focus on the rich cultural and geological history of the peatland, ranging from the last ice age to early peatworkings, and a network of paths would again encourage visitors to explore and understand the habitat. “Other focuses are that the moors would be used by a whole range of educational establishments with links to national curriculum targets and that there would be sustainable development such as green tourism or making good use of the natural harvest of the moor, such as birch from scrub clearance.”

Lowland raised bogs, an area rich in biodiversity. (Right top to bottom) hare’s-tail cottongrass, sphagnum moss, and round-leaved sundew.



# Holkham's haven on earth

Managing England's third largest National Nature Reserve (NNR) into a world class ornithological haven has been a long-term venture, and one that has seen dramatic increases in bird populations. Breeding birds have joined thousands of visitors making the annual trip to the historic grazing marshes at Holkham.

Holkham NNR Site Manager, Ron Harold



Peter Wakely/English Nature

Holkham NNR covers 4,000 ha of unspoiled North Norfolk Heritage Coast, stretching from Burnham Norton to Blakeney, and encompasses habitats from intertidal mud and sandflats to shingle ridges, saltmarsh, pine and mixed woodland. Over the past 15 years the introduction of higher water levels has transformed dry grassland into a mosaic of grass fields, reedbeds, scrapes, flashes, dykes and broadwaters, attracting rare and scarce species of winter wildfowl and nationally important breeding birds. Lapwing numbers have increased four-fold at the site, redshank 18-fold, and marsh harrier nests have increased from one to nine in that time.



The successes seen at the NNR, which is managed by English Nature in conjunction with the Holkham Estate, began with the fundamental change in 1986 to high-water-table management, and have been built on since then.

"Since we started this work we have seen some species increase spectacularly in number year by year,"

Ron Harold, Site Manager at Holkham NNR, said. "Over the years management has developed and many species of wildfowl and waders have increased accordingly. We have created a habitat to encourage wildlife and work hard at maintaining that, taking every opportunity as it arises particularly when the finance is made available."

The management system at Holkham is one example of how an NNR is making a difference through everyday work at a site. When the system was

established, six key objectives for the grazing marshes were identified:

- To maintain a high-water-table, with water levels at or within 10 cm of the surface throughout the year;
- Maintain stable high water levels in the dykes;
- Carry out rotational dyke cleaning on a seven-year cycle;
- Achieve partial flood conditions in winter and retain spring flood water for breeding wildfowl and waders;
- Confine the grazing season to the period May 20 to October 15; and
- Maintain disturbance-free areas during the winter months.

Peter Wakely/English Nature



## Water control

"The grazing marshes have a continual supply of water from powerful fresh water springs," Ron explained. "Management work has been carried out since 1986 to contain the water and separate neighbouring arable land, with earth and clay dams maintained as boundary dykes. Optimum water levels, controlled by piped culverts and sluices, have to be maintained throughout the year, and we keep the variation between the lowest and highest levels in the dykes at no more than 10-15 cm."

## Dyke management

There are over 40 km of dykes at Holkham, managed on a seven-year rotation which facilitates colonisation by plants and invertebrates from nearby, undisturbed, sections. English Nature supervises the dyke management, which is carried out by the Holkham Estate. Care is taken to spread the dyke soil several metres from the dyke edge, allowing easy access for subsequent management such as thistle control and levelling by rotovation.

## Grassland management

Grazing is fundamental to the management of the wet grassland, and most of the fields are grazed by cattle. "Cattle require less supervision than sheep and fewer animals are needed, helping prevent disturbance to breeding birds," Ron said. "Building up a long-term working relationship with individual graziers is also important, so we can, where possible, accommodate their needs and achieve our own aims." Use of herbicides is limited and fertiliser is rarely used these days at the NNR. The 'Ecowipe' weed wiper machine is used as a sensitive and efficient method of weed control.

## Predation

One of the major problems identified in 1990 at the Reserve was nest predation, particularly by foxes and carrion crows – lapwing, for example, fledged only 15 young from 148 pairs. "After much soul searching the decision was taken to set up a control programme targeting foxes and carrion crows, and was implemented in 1991," Ron said. "The control methods we use are lamping and shooting for foxes and Larsen traps for corvids. To date this campaign has proved a success and a marked improvement has been noted in the fledgling rates of many species – lapwing fledged 230 young from 236 pairs in 1999, the best performance to date."

*"Holkham marshes rank among the best wet grassland sites for birds in England, and we are working to ensure that it continues to thrive."*

Bird	1987	1991	2001
Avocet (pairs)	0	15	80
Gadwall (pairs)	1	25	51
Lapwing (pairs)	73	178	355
Marsh harrier (nests)	1	5	9
Oystercatcher (pairs)	2	17	40
Pochard (pairs)	0	15	25
Redshank (pairs)	8	51	149
Shoveller (pairs)	2	25	47
Snipe (pairs)	8	28	11
Yellow wagtail (pairs)	9	23	2

Grazing marshes breeding birds, Holkham NNR

Staff working at the Holkham NNR are also active in surveying and monitoring the site, including breeding bird surveys and winter wildfowl and wader counts.

"Not all species have seen a continual increase – numbers of yellow wagtail and snipe have plummeted over recent years," Ron said. "Snipe are declining nationally, even on the best sites, whilst the decline in yellow wagtails may partly be due to problems with their wintering grounds in Africa. We are monitoring the situation and hopefully the situation for both species will improve. Holkham marshes rank among the best wet grassland sites for birds in England, and we are working to ensure that it continues to thrive."

# The SSSI challenge

Sites of Special Scientific Interest (SSSIs) are the finest examples of wildlife and geology, but not all are in the best condition. The Government has stated that by 2010 95 per cent of England's 4,100 SSSIs should be in 'favourable condition', that is, still containing the wildlife and geology that makes them important. At the moment only 59 per cent of SSSIs are in favourable, or recovering towards favourable, condition. **So what about the rest?**

**T**he worst cases are upland heathland SSSIs, with 73 per cent in unfavourable condition, and upland calcareous grassland SSSIs with 67 per cent unfavourable. These can be accounted for almost entirely by overgrazing. In contrast, undergrazing is the main cause of poor condition on lowland calcareous grassland SSSIs, with 62 per cent unfavourable. Many of these sites are unenclosed commons, often surrounded by busy roads or urban settlements, making grazing very difficult. Other issues affecting SSSI condition include drainage and pollution.

## What are we doing to meet the challenge?

### Private land

Most SSSIs are privately owned and English Nature works in partnership with about 26,000 SSSI owners and managers to maintain and enhance the sites. So, a major factor in achieving favourable condition is to foster and develop strong partnerships with owners and occupiers. For example, our Conservation Officers give advice on appropriate management and, in some cases, on schemes, such as Wildlife Enhancement, to fund that management. To inform SSSI owners and managers of news and developments on SSSIs, we send them a quarterly newsletter, Sitelines, and invite them to local open meetings.

English Nature is working closely with the Rural Development Service (RDS) which runs agri-environment schemes, making payments to farmers in return for undertaking beneficial environmental management. Where appropriate, we can make additional Wildlife Enhancement payments, and together can achieve favourable condition on SSSIs,

This small sample of sites indicates the diverse range of habitats that the SSSI designation covers. ① Swans at nest on Sutton Park, West Midlands and ② King's Wood, Heath and Reach, Bedfordshire.

for example by encouraging appropriate grazing levels. We give environmental advice through the Farm Business Advice Service programme, including free advice to farmers who have suffered as a result of Foot and Mouth Disease.

### Public land

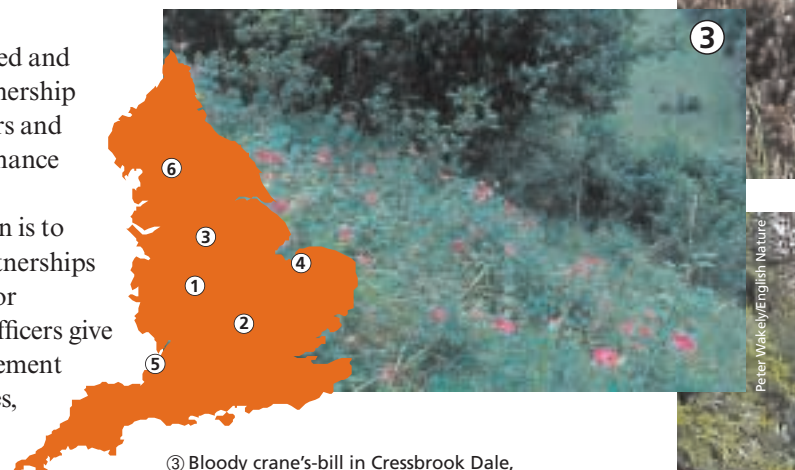
Public bodies, such as Government departments and local authorities, own 20 per cent of SSSI land. The Countryside and Rights of Way Act 2000 places new duties on these bodies to take reasonable steps to further the conservation and enhance the special wildlife and geology of the SSSIs they own. Public bodies are required to follow new consultation procedures about notifying us of their operations on SSSIs, and activities of others licensed by them. We have already agreed procedures with the Environment Agency and MoD, and

③ Bloody crane's-bill in Cressbrook Dale, Derbyshire Dales. ④ Roydon Common, Norfolk. ⑤ cattle grazing at Gordano Valley, Avon. ⑥ Ling Gill, North Yorks.

later this year we will be surveying other public bodies to find out how aware they are of their new duties, and to ask them what help they would like from us. English Nature is keen to raise awareness in public bodies of their obligations and we continue to work with them to help them fulfil their duties.

The Countryside and Rights of Way Act gives English Nature powers to tackle unfavourable condition that is the result of neglect, mismanagement or the effects of past damage.

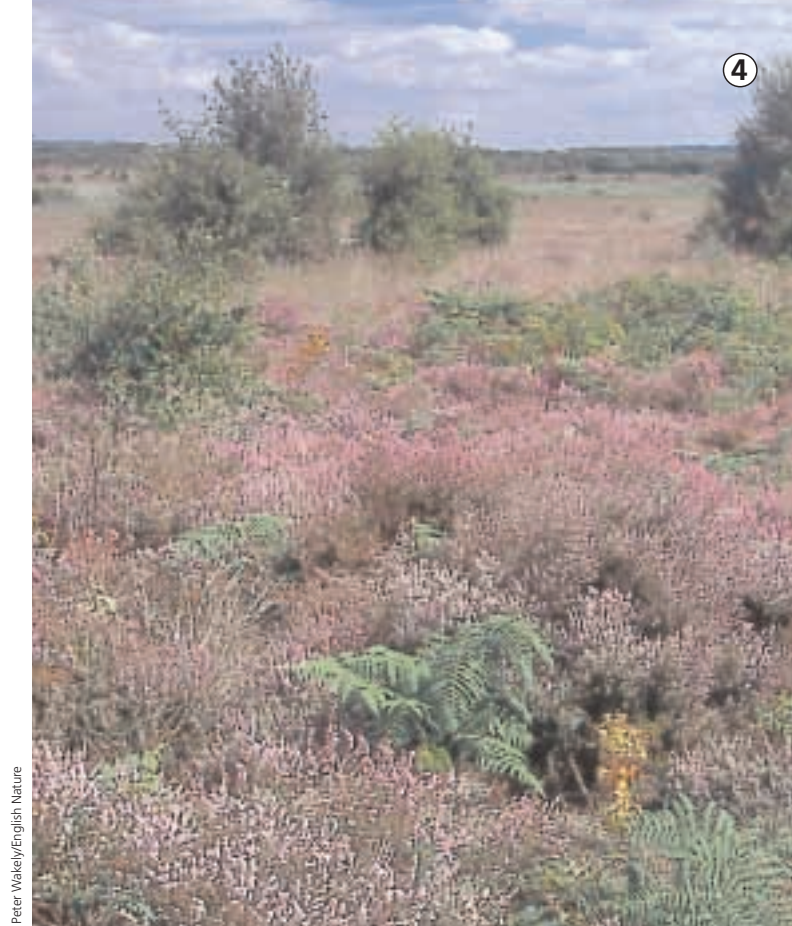
However, the Act is not the complete answer to hitting the Government's target, but will require substantial additional efforts and resources.



Peter Wakely/English Nature



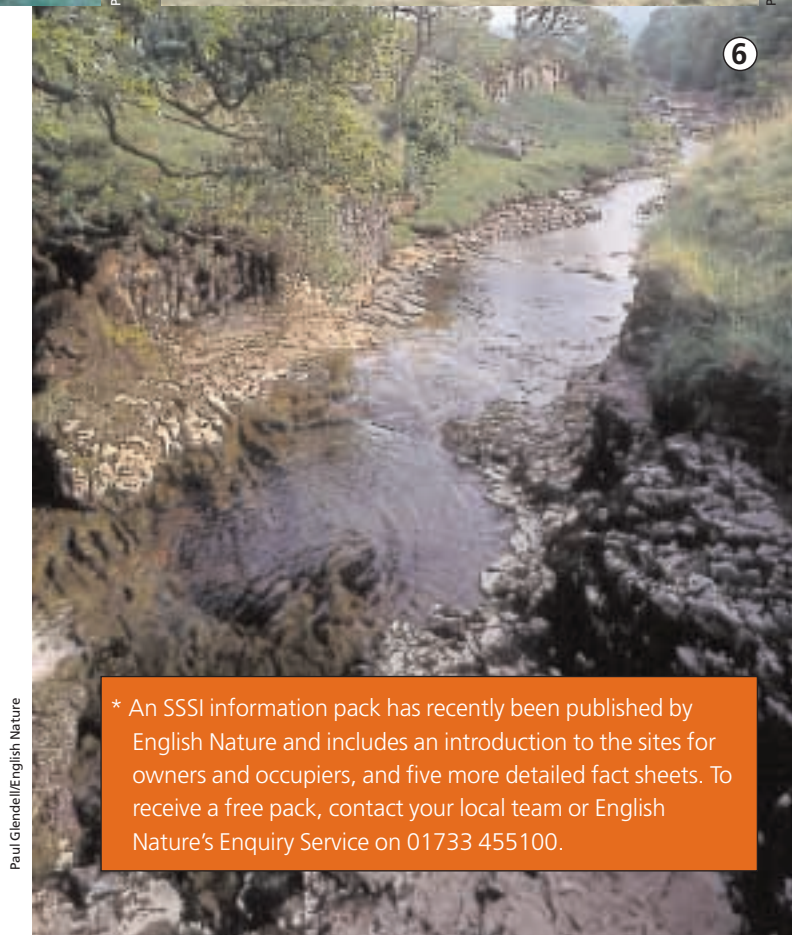
Peter Wakely/English Nature



Peter Wakely/English Nature



Peter Wakely/English Nature



Paul Glendell/English Nature

## WHAT'S ON? GUIDE

### MARCH

**MAR 29** March 29 to 31 – Easter at the Fen, Redgrave & Lopham NNR, Suffolk  
📞 Contact: 01379 688333

**MAR 30** March 30 to June 8 – Salisbury Festival  
📞 Contact: Festival office on 01722 332241  
@ E-mail: info@salisburyfestival.co.uk

**MAR 31** Easter Egg Hunt Hatfield Forest NNR  
10.30am – 12.30pm. Find the Easter eggs at the end of the trail! Suitable for all ages who enjoy chocolate. Small charge to join in the fun. No booking necessary.

### APRIL

**APR 2** Kiddies Kites Walk  
Aston Rowant NNR, Oxon  
📞 Contact: 01844 351833

**APR 6** Lichens Charnwood Lodge NNR, Leics  
A morning walk led by Dr A Fletcher to learn about some of the fascinating lichens.  
📞 Contact: Katie Glenn on 0116 270 2999

**APR 10** Spring Flowers Aston Rowant NNR, Oxon  
📞 Contact: 01844 351833

**APR 14** Bat Boxes Cavenham Heath NNR, Suffolk  
Looking for bats in their bat boxes as part of a long-term research programme. Booking required.  
📞 Contact: Janet Holden, 01284 762218

**APR 21** Birds of the Mosses  
Fenn's, Whixall & Bettisfield Moss NNR  
📞 Contact: Joan Daniels, 01948 880362

**APR 27** April 27 and 29 – Snakes Head Fritillaries  
Motte Meadows NNR, Staffordshire  
📞 Contact: Tim Coleshaw, 01743 282014

### MAY

**MAY 3** Bird song, red squirrels and woodland  
Finlandrigg Wood NNR, Cumbria  
📞 Contact: Frank Mawby, 016973 51517

**MAY 4** Birds Holt Heath NNR, Dorset  
A morning walk to see unusual birds including woodlark, tree pipit and Dartford warbler as well as breeding curlews.  
📞 Contact: 01929 557450

**MAY 5** Join the Dawn Chorus  
Ainsdale Sand Dunes NNR, Lancs  
📞 Contact: 01704 578774

**MAY 12** Seal Watch Teesmouth NNR  
📞 Contact: Gina Balzion, 01429 853325

\* An SSSI information pack has recently been published by English Nature and includes an introduction to the sites for owners and occupiers, and five more detailed fact sheets. To receive a free pack, contact your local team or English Nature's Enquiry Service on 01733 455100.

# Building a future for frogs

**A virus originating from North America has caused the death of thousands of frogs across Britain over the last decade, recent research has revealed. But English Nature amphibian expert Jim Foster says there is a simple way for us to help ensure the future of our amphibian friends – by continuing to build garden ponds.**

The common frog

The virus has recently been uncovered by Froglife and the Institute of Zoology, after the organisations investigated the cause of the mass frog mortality during the summer months. The virus can lead to skin ulceration or haemorrhaging, which can prove fatal. Typically, frogs have been found dying in and around ponds sometimes little more than skin and bone.

Frogs are a big part of British culture and folklore – Paul McCartney sang about them, and we all know that if girls kiss them, frogs will turn into princes – so, it's no wonder people across the country are concerned about what is happening to them.

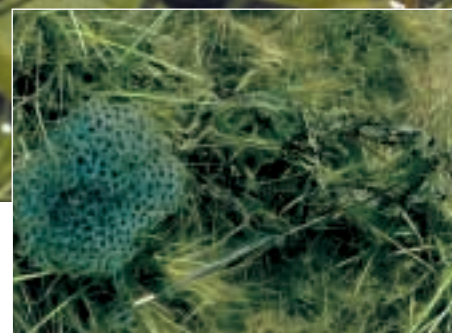
But Jim Foster says our frog population will not be at risk if we continue to provide habitats for frogs and their amphibian allies, including newts and toads, by building garden ponds.

He said, “The disease is not thought to be a threat to most of Britain's frog populations. In fact, garden ponds are now known to provide excellent habitats. To some extent, the creation

of garden ponds is offsetting the loss of ponds in the wider countryside, where agriculture and development impacts have meant the destruction of many wetlands over the last century.

“If you do find dead frogs in the garden, remember there are reasons other than the disease which can be the cause. Though most frogs spend the winter underground, some hibernate in the bottom of ponds. If there is a hard freeze and ice forms over the surface, the oxygen levels within the pond plummet and frogs can perish. Some female frogs also die during mating, due to frenetic clasping by the males. Of course, frogs are prey to predators too, including crows, herons, foxes, rats and cats.

“But the good news is that frogs have a lifestyle tailor-made to cope with all these trials as they produce large numbers of young. In a typical clump of frogspawn, there may be up to 2,000 embryos, which means there should be a decent crop of tadpoles ready to face life as frogs.”



Jim Foster/English Nature

## Build the perfect pond Jim's top tips

1. Dig a new pond in a sunny spot
2. Ideal frog ponds should have shallow margins, with deeper areas in the middle
3. Good wildlife ponds have a range of pond plants (avoid invasive exotics)
4. Put logs and stones in a heap around the pond to provide shelter
5. Let the grass around the pond grow long and keep other areas as rough as possible
6. Avoid using garden chemicals
7. Normally, you won't have to introduce frogs – they are adept at colonising new waterbodies

