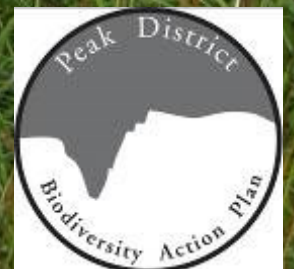


PEAK DISTRICT BAP REPORT 2011-2013



The Peak District Biodiversity Partnership - people working together to conserve, enhance and promote the special wildlife, habitats and landscapes of the Peak District

Conserving biodiversity in the Peak District is about looking after the wildlife we have today and planning for the future. The environment of soil, water and air needs to be kept healthy if it is to provide the natural home for plants such as oak trees and Jacob's ladder, animals such as lapwing and water vole, and the landscapes that people love to visit. Looking after wildlife is good for people and local business, for health and well-being, and is strongly linked to adapting to, and preparing for, the effects of climate change.

By working together, small changes can make a big difference.

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This report was produced by Karen Shelley-Jones, BAP coordinator for the Peak District

With thanks to the following for their input: Aquascience, Chatsworth Estate, Derbyshire Wildlife Trust, Environment Agency, Forestry Commission, Moors for the Future, National Trust, Peak District National Park Authority, RSPB, Sheffield City Council, Sheffield Wildlife Trust, Staffordshire Wildlife Trust, and all who contributed.

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INTRODUCTION

With the revision of the Peak District Biodiversity Action Plan (BAP) in 2011 to an online plan, we decided to re-vamp the BAP reports accordingly, focusing on the priority areas of work identified in the BAP 2011-2020. This report therefore comprises case studies from projects and partnerships all involved in delivery of one or more of the BAP priorities.

The political climate has moved on in the last few years, away from the UKBAP with its individual Habitat and Species Action Plans to the new Biodiversity Strategy 'Biodiversity 2020' with its mission to "halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological

networks, with more and better places for nature for the benefit of wildlife and people". The Strategy has four outcomes for terrestrial habitats and ecosystems; marine habitats, ecosystems and fisheries; species; and people.

The four priority areas for action are:

1) a more integrated large-scale approach to conservation on land and at sea; 2) putting people at the heart of biodiversity policy; 3) reducing environmental pressures; and 4) improving our knowledge.

We have retained the Peak District BAP and are focusing our collective efforts on priority landscapes, habitats and species which we feel have particular importance locally. We are aiming for Better, Bigger, More and Joined up: **Better** condition habitats and ecosystems; **Bigger** areas of protected sites and priority habitats; **More** priority habitats, with more priority species; and enhancing these sites by **Joining** them up where possible to create landscapes of great value for wildlife, people and climate resilience.

We have many 'tools' at our disposal:

- the land managers who strive to produce food and materials from the land whilst at the same time managing it to benefit wildlife and protect natural resources;
- the large land-owning organisations and partnerships with the vision and passion to work at the landscape-scale;
- the national grant schemes and grant awarding bodies which fund much of the work; and
- the individuals with the drive to make change happen.

This report highlights some of the impressive work which is taking place across the Peak District.

Dr Derek Yalden - In Memorium

No report on the biodiversity of the Peak District at this time would be complete without mention of the sad passing of Dr Derek Yalden in February. Derek was a Senior Lecturer and Honorary Reader in zoology at Manchester University, a well-known, respected naturalist and highly valued friend to the National Park. Derek had an outstanding national and international reputation as president of The Mammal Society since 1997, author or co-author of over 200 scientific publications and recipient of a Linnaean Society medal in 2010, as well as having 2 species named after him (a tree frog and a small rodent, both endemic to Ethiopia).

Notwithstanding his international reputation, Derek was always very generous with his time for the Peak District which he regarded as his "home territory". His professional expertise in mammals was reflected by his local studies of Mountain Hares and the feral Red-necked Wallaby population on the Peak District moors, and he also published a number of papers on his local studies of upland birds such as Common Sandpipers, Golden Plovers and Black Grouse. His discovery of Bog Bilberry on the Peak District moors in 2004 is indicative of his versatility as a naturalist, and he was very active in promoting wildlife conservation locally through involvement with bodies such as the Peak Park Wildlife Advisory Group and the Upper Derwent Conservation Group.

Although perhaps best known for his work on mammals and birds, Derek also played a key role in early research on moorland erosion in the Peak District, editing and co-authoring the Phase 1, 2 and 3 reports of the Moorland Erosion Study/ Moorland Restoration Project/Moorland Management Project. This work laid the foundations for subsequent large-scale restoration of eroding moorland by the National Trust, the North Peak Environmentally Sensitive Area scheme and more recently the Moors for the Future project, and the improving fortunes of the Peak District moors are a lasting legacy of that pioneering work.

Derek had a great ability to enthuse others and commanded great respect and affection amongst a very wide range of people: professional colleagues across the world, fellow local naturalists, local gamekeepers, landowners and conservationists. It is perhaps above all his personal engagement with local people and societies for which Derek will be remembered with great affection in the Peak District, and our thoughts are with his family and friends.

LOCAL NATURE PARTNERSHIP

Local Nature Partnerships (LNPs) were proposed in the Natural Environment White Paper (2011) as a means to strengthen local action to improve and raise awareness about the services and benefits of a healthy natural environment to people, communities and the local economy. To do this effectively they will need to be self-sustaining strategic partnerships of a broad range of local organisations, businesses and people with the credibility to work with, and influence, others.

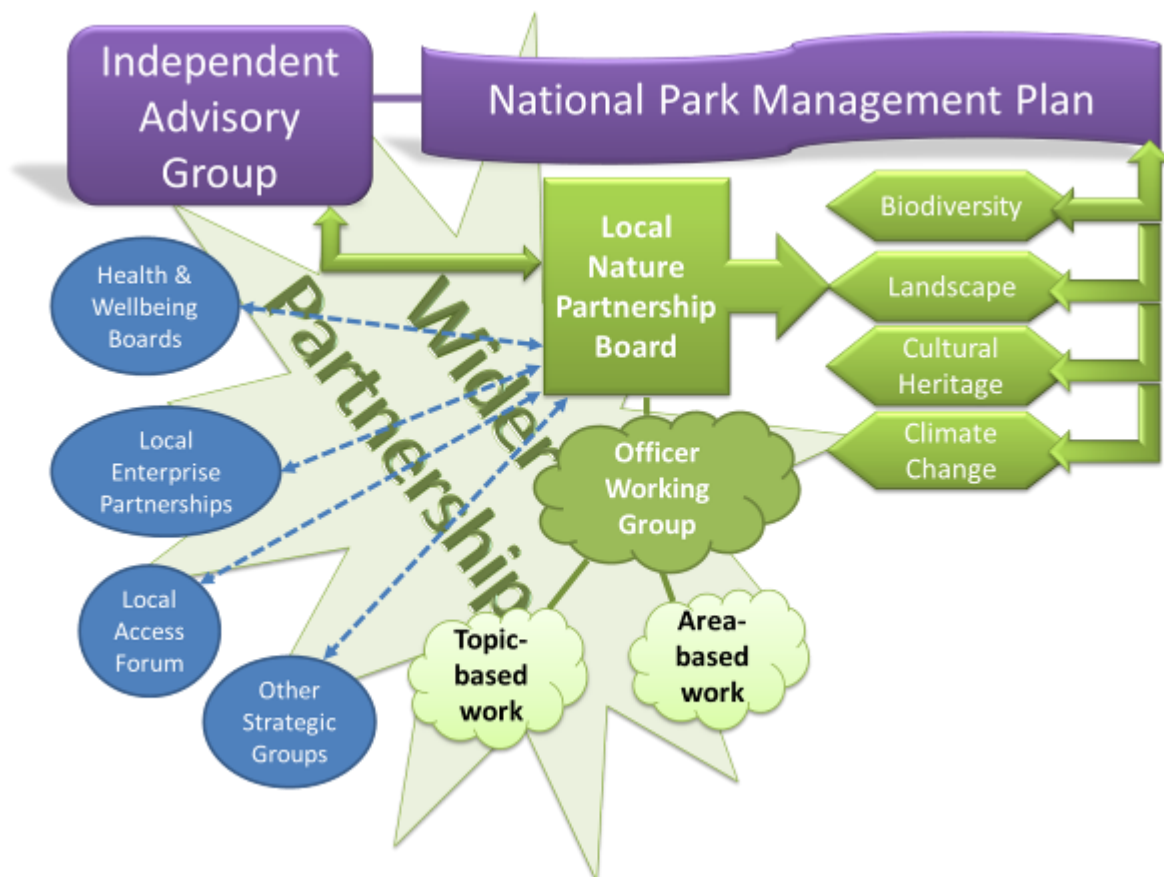
The Peak District Local Nature Partnership is a partnership of individuals, businesses and organisations working together to better understand, appreciate, value and enhance the local natural environment.

The ambition for the LNP is:

“A thriving and inspiring landscape richer in bio- and geo-diversity; where a valued natural and cultural environment, central to decision making, is managed for wildlife, promotes healthier lives and benefits the local economy”

The LNP is in its infancy, with an interim Board driving forward priorities and building on existing relationships with partners, but also developing closer links with the business and health sectors. Biodiversity and a healthy natural environment sit at the heart of the LNP ambition, and one of the remits of the interim Board will be to oversee the delivery of the Biodiversity Action Plan and other associated strategies (as indicated in the proposed structure diagram below).

Rather than having both a Biodiversity Partnership and a Local Nature Partnership, the two will become one and the same thing, with a broader range of interests.



To find out more about the Peak District LNP, visit the website: www.peakdistrict.gov.uk/looking-after/local-nature-partnership

NATURE IMPROVEMENT AREA

In the Natural Environment White Paper, Defra set out their vision for Nature Improvement Areas (NIAs) to be created. These landscape-scale initiatives aim to ensure that land is used sustainably to achieve multiple benefits for people, wildlife and the local economy. NIAs are large, discrete areas that will deliver a step change in nature conservation, where a local partnership has a shared vision for their natural environment. The partnership will plan and deliver significant improvements for wildlife and people through the sustainable use of natural resources, restoring and creating wildlife habitats, connecting local sites and joining up local action. The partnership will be able to demonstrate measurable improvements - the "step-change" - and commit to sharing information about their achievements.

Update from the Dark Peak NIA Project Manager

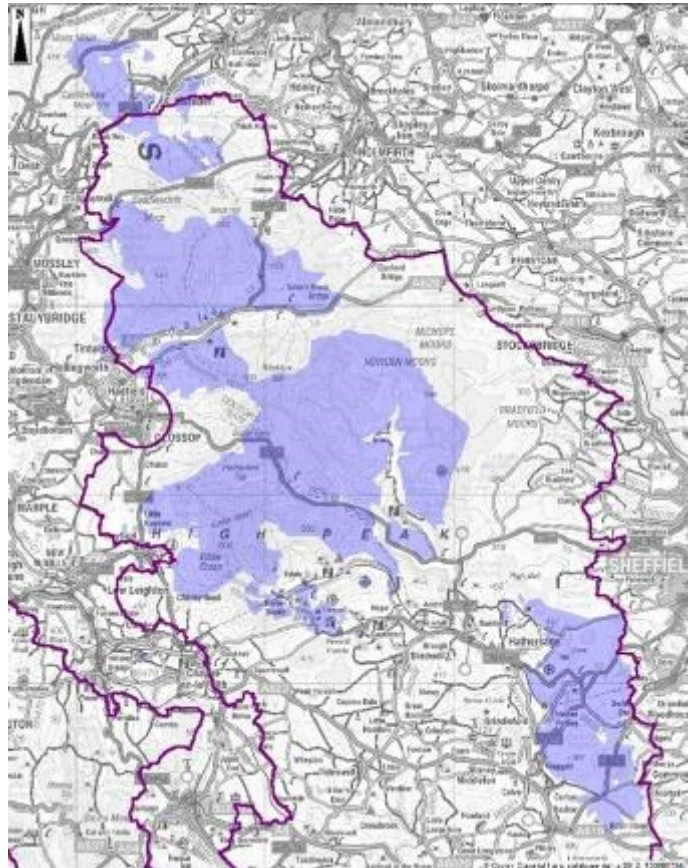
The Dark Peak Nature Improvement Area has gone from strength to strength in its first year. We have expanded the boundary (pictured right) to now include the National Trust land at Marsden and will be working with the team there on their HLS applications.

This expansion now means that we are a partnership of ten, with hopes of growing still. I am actively looking for opportunities for more people/organisations to join the NIA.

We have worked with a tenant farmer in Woodhead to create 28 ha of new native broadleaf woodland, we also have an application with the Forestry Commission to create 41 ha of new native broadleaf woodland, this application is on a privately owned land, in the Dovestone area. These two projects show the power of the Nature Improvement Area, with us able to offer help and support through the application and planting process, and to work with people we might not traditionally have done. Both applications are for woodland on steep sided slopes and will have 40% open space making up the woodland mosaic.

The 48 projects covering the five objectives, Blanket Bog, Heathland, Grassland, Woodland and Access and Recreation - the details of which can be found in the business plan - have all been started and look to be on schedule for meeting our targets to improve biodiversity and enhancing peoples experience of the Dark Peak.

Ross Frazer, RSPB



Burbage Moor and Plantation Project

This part of the NIA is owned by Sheffield City Council, the plans for the site include clear felling 39.3 ha of commercial conifer plantations, and replanting with nearly 37,000 native broadleaf saplings. The area will be restored to a mosaic of 25 ha of new upland heathland together with the creation of 23 ha of new sessile oak-birch woodland.

The exact detail of this work is being carefully planned in consultation with project partners, the public and Natural England (the site is a SSSI).

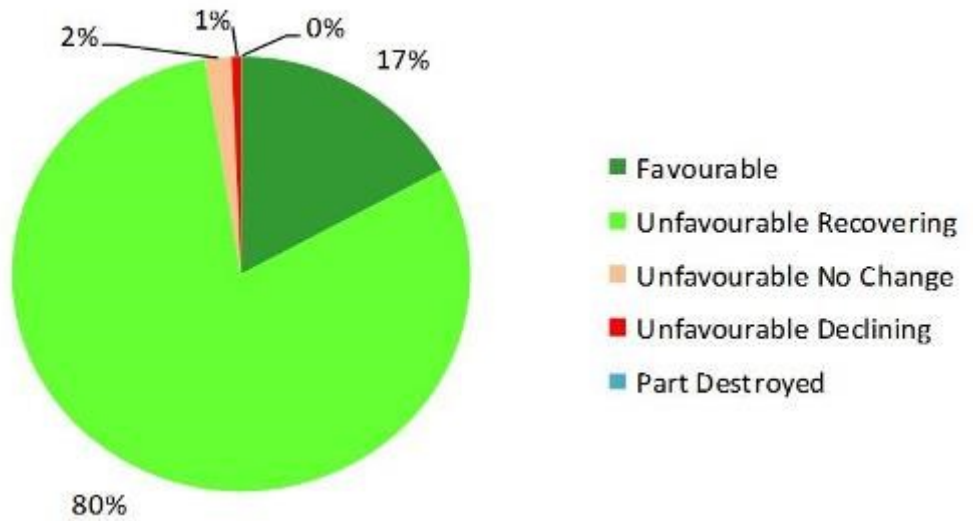
A detailed programme of surveys are in progress, both to identify species of particular conservation interest on the site (which may influence management), and to provide baseline data to monitor the results of habitat enhancement work.

Richard Harris, Sheffield City Council

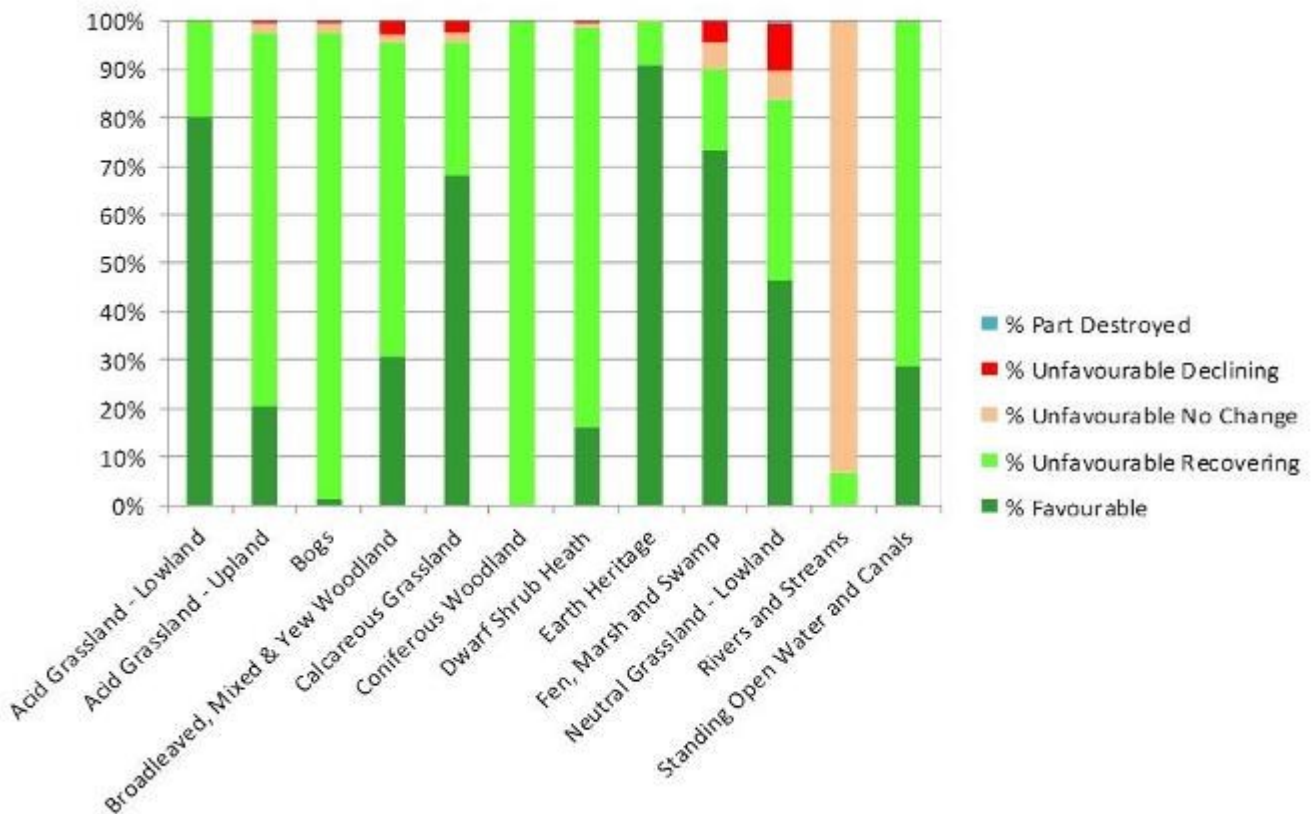
DESIGNATED SITES

SSSI Update

Having achieved the 2010 target of 95% of SSSIs in Favourable or Recovering condition; the current National target has been set at achieving 50% of SSSIs in Favourable condition by 2020. Of the 51,148 ha of SSSI within the Peak District, there are currently 8,722 ha (17.1%) in Favourable condition, 41,155 ha (80.4%) in Recovering condition, and 1,307 ha (2.5%) is currently Unfavourable and not recovering.



Broken down into different habitats in the chart below it becomes apparent which individual habitat types are in Favourable condition, which are Recovering, and which are not. Currently, the majority of Peak District SSSIs are in Recovering condition due to the historic legacy of problems such as air pollution, heavy grazing and fires. Achieving the 50% Favourable target will be a real challenge in the uplands given the long timescale of recovery for habitats like blanket bog and upland heathland. Notwithstanding this, a tremendous amount of work is underway which is resulting in real and significant benefits for wildlife and ecosystems on the ground.



BLANKET BOG & HEATHLAND

The High Peak Moors Vision and Plan

The draft Vision and Plan for the National Trust's High Peak Moors was put out to public consultation just before Christmas. The Trust has been delighted by the scale of the response to the draft – over 430 individuals or organisations have commented on the draft document, which sets out a 25 year vision for how the 10,000 ha of moorland could be managed in the future for people and wildlife. Almost all of the area is part of the Dark Peak SSSI and has international designations as a Special Area of Conservation and a Special Protection Area. The Trust is also keen to ensure that the archaeology and cultural landscape of the moors is well cared for, and for the area to provide the maximum possible benefit in terms of water, carbon and climate change.

The moors are a working landscape shaped by man's activity and provide a living for members of the local community. The National Trust wants to work in partnership with local land managers who support our vision and want to help us deliver it.

Further information on the project can be found at <http://www.high-peak-moors.co.uk/>

Sophie Milner, National Trust



The Kinder Catchment Project

Currently we are two years into a five year, £2.5 million project, supported by United Utilities and Natural England, to restore this iconic landscape.

Over 70 hectares (approx. 172 acres) of bare peat is being restored, using a range of techniques, including heather spreading, the planting of over 500,000 cotton grass plants and increasing sphagnum moss coverage by over 100%. Gully blocking is also an essential part of this work. This slows the flow of water off the plateau when it rains and helps keep peat where it should be, on the top. This also improves the quality of water flowing into the reservoirs, helping reduce the need for increasing treatment.

A temporary 15 kilometre (9 mile) fence has been erected, with regular visitor access points, around the plateau to keep the area free from grazing animals and allow the newly planted vegetation the opportunity to get established, while maintaining open access to Kinder Scout for walkers and other visitors.

The nature of peat bog means it is capable of storing huge amounts of carbon. When these habitats are healthy, and peat is actively forming, they continue to increase the amount of carbon they store, so as well as being rare and threatened habitats, vitally important for a wealth of wildlife, peat bogs also have an important role to play in helping to combat climate change.

Kinder is a truly special place, it played a major part in how we access open country in England and its wild and awe-inspiring scenery has influenced generations, and continues to do so.

The work of the Trust, both now and over the last 30 years, has prevented the loss of something incredibly important to both our heritage and future.

Tom Harman, Kinder Catchment Project Officer, National Trust

BLANKET BOG & HEATHLAND

Moors for the Future Partnership

Helping restore and monitor one of the most degraded peat moorlands in Europe in the Peak District National Park and South Pennines is important for wildlife, place and people.

The Moors for the Future Partnership, having hit its 10th anniversary this year – celebrating a decade of moorland restoration - is now looking to consolidate its progress through a programme of innovative restoration, science and communication projects.

Our three objectives are:

- **To raise awareness and promote positive action for the conservation of the moorland landscape.**
- **To develop and deliver sustainable land management for these important upland resources, ensuring appropriate consideration of all of their benefits.**
- **To develop expertise for the sustainable management of moorlands ensuring that the programme is properly resourced with the capacity and capability to achieve this.**

We are undertaking conservation and land management, science and public awareness-raising works on several major projects: MoorLIFE (<http://www.moorsforthefuture.org.uk/moorlife>), which is one of the largest upland conservation projects, funded through the EU LIFE+ funding stream, in the EU; Natural England Conservation Plan Project (NECPP) (<http://www.moorsforthefuture.org.uk/natural-england-conservation-plans-project>), which delivers moorland conservation projects through Natural England agri-environment schemes (ESA and HLS); and the Yorkshire Water SSSI Recovery Project, delivering moorland conservation projects on Yorkshire Water's owned land. (<http://www.moorsforthefuture.org.uk/yorkshire-water-sssi-recovery-project>).

In addition, we have started work on several other projects this year: the Clough Woodland Project; the South Pennines Commons project (<http://www.moorsforthefuture.org.uk/south-pennine-commons-project>), which is undertaking moorland restoration works north of the National Park, in the area of the Manor of Rochdale; the Community Science Project, and the Making Space for Water Two project (<http://www.moorsforthefuture.org.uk/making-space-water-2>).

Examples of our work:

Sphagnum propagation

The most exciting advance this year has been in our work to reintroduce Sphagnum mosses to the blanket bogs of the Dark Peak. The peat in the Dark Peak was formed by Sphagnum mosses over the last 6000 years, and much has been lost over the last 150 years, predominantly through atmospheric pollution. We've been working on this project with our contractors, Micro-propagation Services, for nearly five years. We have moved from small scale trials, funded by the Co-operative Foundation and monitored by a PhD student at Manchester Metropolitan University and this year we applied Sphagnum mosses, in bead form, to 29 hectares of Black Hill. The next step up is to apply Sphagnum, by helicopter, to 150 hectares of Bleaklow, which is planned for March 2013.



Application of Sphagnum builds on the bare peat restoration work described below, but can also be used in areas where the habitat has been impoverished by the loss of Sphagnum without leading to bare peat, such as in extensive areas of cottongrass or purple moor grass.

BLANKET BOG & HEATHLAND

Bare peat restoration

Predominantly through MoorLIFE and the NECPP, work has continued across the Dark Peak moorlands to remediate bare and eroding peat. We have moved right across the county, re-vegetating land from Saddleworth to Kinder. We have treated over 500 hectares of bare peat in the last year, at various points in the stabilisation process.



We have planted over 100,000 plug plants of a range of moorland species, to try and get back plants that form a major component of the Peak District's blanket bog vegetation, either biologically or structurally. The species planted are Common and Hare's-tail cottongrass (*Eriophorum angustifolium* and *E. vaginatum*), Bilberry (*Vaccinium myrtillus*), Cloudberry (*Rubus chamaemorus*), Cross-leaved heath (*Erica tetralix*) and Crowberry (*Empetrum nigrum*). These plants are all grown by micro-propagation from material that has been collected across the Dark Peak.

We have also installed over 2500 stone dams (pictured right) in erosion gullies on Kinder and Bleaklow, to try and trap sediment and reduce the amount that is being eroded off the hill. The amount of gully erosion on Woodhead, on the northern slopes of Bleaklow is highly visible from Black Hill and along the whole of the Longendale valley.



Making Space for Water phase 2 (April 2012 - March 2015)

Making Space for Water (phase 2) does not include any capital works but involves a continuation of monitoring activities for a further three years until 2015. The project also includes development of a flood risk model to assess the impact of gully blocking on pattern of discharge, an Ecosystem Assessment of the restoration works and a programme of knowledge exchange events.

Yorkshire Water SSSI Recovery Project

In 2011/12 the Yorkshire Water SSSI Recovery Project delivered works across 13 of Yorkshire Water's sites. Twenty different tasks were contracted out, delivering work to improve the condition of these SSSIs from Unfavourable Recovering condition to Favourable condition.

The work included:

- 6178 trees were planted;
- Approximately 3100m of stock fencing and 270m dry stone walling were erected;
- 2 hectares of bracken were controlled with herbicide;
- 112 hectares of degraded moorland were treated with lime and fertilizer;
- 413 bags of heather brash were spread on bare peat;
- A team of rope access experts were used to carry out rhododendron clearance in a particularly difficult and sensitive location on cliffs overlooking a water supply reservoir.

Matt Buckler, Moors for the Future

BLANKET BOG & HEATHLAND

Dove Stone

The RSPB is working in partnership with United Utilities on 4000 ha at Dove Stone reservoir near Saddleworth, to improve habitat and water quality. We rely heavily on volunteers to help us achieve this management, and work closely with the Dark Peak NIA and Moors for the Future.

Blanket Bog restoration has included a lot of capital work as part of efforts to restore the hydrology of the bogs. 1100 heather bales have been flown out, and to date 900 installed as gully and peat pan dams by RSPB staff and volunteers (pictured right). In addition, 800 stone dams have been installed by RSPB staff, volunteers and contractors.



Diversification of species-poor blanket bog has been assisted with 18 ha of intact cotton grass areas inoculated with sphagnum beads by RSPB staff and volunteers and National Park volunteers. 36 bags of sphagnum were harvested from Bowland and spread on the older restoration areas around Chew reservoir by RSPB staff and volunteers.

On the upland heathland areas approximately 5 ha of heather was cut for fire breaks to help diversify heather-dominated dry heathland (some of which was baled for use in blanket bog restoration). Additional vegetation diversification work has included the spreading of bell heather seed on 1 ha of moorland edge/dry heath, plus devils' bit scabious, cross-leaved heath and sphagnum planting on 0.5 ha of wet heath.

Monitoring: Moorland Breeding Bird Survey on 14 km². Dunlin survey in conjunction with National Trust. Golden Plover productivity survey on 1.5 km². 20 km water course monitoring for Water Voles. Sphagnum transects. Gully blocking monitoring. Fox scat transects. Passerine transect monitoring. Ring Ouzel monitoring. Common Sandpiper and Dipper transects.

Kate Hanley, RSPB

Eastern Moors Partnership

The Eastern Moors Partnership is a joint venture between the National Trust and RSPB, managing the Eastern Moors on behalf of the Peak District National Park Authority. The Eastern Moors SSSI comprises Topley Moss, Ramsley Moor, Big Moor, Clod Hall, Jack Flat and Leash Fen. Since signing the lease in January 2011 the Partnership has produced a detailed management plan for the site, which includes the objectives to:

- Enhance public benefits such as landscape and health & wellbeing;
- Demonstrate best practice in landscape scale management;
- Develop greater public connection with nature;
- Act as a source of inspiration;
- Promote sustainable access and use of the site;
- Conserve and interpret the cultural landscape;
- Restore and maintain ecosystem services;
- Restore and maintain upland habitats and species;
- Restore and maintain woodland habitats and species.



BLANKET BOG & HEATHLAND

Work to manage and restore the moorland habitats has included blocking grips and drains on Big Moor, and a major grip blocking programme on Leash Fen which is building on previous work by the PDNPA in an effort to restore hydrological function of the blanket bog and wet heath areas. Bog asphodel (pictured right) is one of the plants which will benefit.



On the dry heath areas, the aim is to diversify species and structure with different management approaches fitted to the appropriate areas. Heather cutting is being used to enhance species and structural diversity for vegetation and birds. Two years of a five year purple moor-grass (Molinia) reversion programme involving cutting, burning and re-seeding with heather have been completed, this is coupled with winter grazing of cattle on Big Moor to open up dense tufts of Molinia. Four of the five moors now have cattle-only grazing, comprising about 150 Highlands and 70 Welsh Blacks.

Roy Taylor, RSPB

Iron Horse with a Gentle Hoof

An unusual type of 'horse' may have been seen in the Peak District this winter, helping to transport materials across sensitive moorland sites. The so-called 'Iron Horse' (pictured right) is an All-Terrain Vehicle with wide snow-mobile tracks which spread its weight giving very low ground pressure and good traction. The machine is designed for working in Sweden on blanket bogs and steep moorland terrain, with the ability to carry materials up slopes of 45 degrees with little trouble. The Horse has just completed a job removing heather brash and chipped gorse off a SSSI moorland for Staffordshire Moorlands District Council. Access across the site would have been impossible with any other type of machine due to the steep and undulating terrain and only being able to utilise very narrow footpaths. It was possible to move dumpy bags of woodchip and heather brash easily around the site with virtually no disturbance to vegetation or soil.



The Horse has just completed a job removing heather brash and chipped gorse off a SSSI moorland for Staffordshire Moorlands District Council. Access across the site would have been impossible with any other type of machine due to the steep and undulating terrain and only being able to utilise very narrow footpaths. It was possible to move dumpy bags of woodchip and heather brash easily around the site with virtually no disturbance to vegetation or soil.



The second job was transporting materials for grip blocking on the North Lees Estate. The grips in question are located almost a kilometre from the nearest road, and in previous years bundles of birch brash had to be carried under human power across the moor (pictured left) to be fixed into place with birch stakes. Using the Iron Horse cuts down considerably on time and effort, making for a much quicker and more effective job, whilst causing virtually no disturbance to the ground.

Frances Horsford, PDNPA

GRASSLANDS

Calaminarian Grassland Project

Calaminarian grasslands support rare and attractive wild flowers on substrates characterised by high levels of heavy metals. In Derbyshire these are associated with lead mine workings and spoil heaps distributed across the White Peak and in a small outlier at Ashover. This was one of the largest and richest ore-fields in Britain where centuries of mining has resulted in a landscape of hillocks and hollows - which follow the underground mineral veins or 'rakes'- and ruined mining structures, which is recognized as important for wildlife, archaeology, cultural history and geology.

A number of nationally rare plants are characteristic of calaminarian grasslands including Spring Sandwort (*Minuartia verna*) and Alpine Penny-cress (*Thlaspi caerulescens*, pictured below) both of which are known locally as Leadwort.

Calaminarian grasslands together with the associated grassland types of the lead rakes are under threat from re-working for the mineral deposits, agricultural improvement, agricultural abandonment. Increased knowledge is facilitating better informed planning decisions and allowing targeted conservation action through the negotiation of agri-environment schemes.

National estimates for the extent of the habitat vary widely but there may be as little as 100 hectares. Further surveys in 2011 & 2012 showed that, as expected, the area of calaminarian grassland within the Peak District is very limited. Whilst the area of lead rakes is somewhat larger, the area of actual calaminarian grassland was recorded as just under 14 ha, with 6 ha in SSSIs and 1 ha outside the National Park.

The survey results have been submitted for inclusion in Natural England's Grassland Inventory (available nationally through Natural England's website) and have been incorporated into:

- The Wildlife Sites system outside the National Park
- The SSSI survey records
- The Peak District BAP database
- The National Park Lead Rakes database

In addition the National Park Authority is leading on the production of a Peak District-wide Lead Rakes Inventory which is to be published by Peak District Mines Historical Society in autumn 2013. The survey results have been used to compile site descriptions to be incorporated into the Inventory.



Habitat conservation and restoration work has taken place on 12 sites including two outside the National Park and three SSSIs. Volunteers have been involved at four sites.
Rebekah Newman, PDNPA



GRASSLANDS

Local Wildlife Sites

Derbyshire Wildlife Trust surveyed 25 existing and potential Local Wildlife Sites within the Peak District, covering some 170 ha. Features of interest (such as populations of melancholy thistle and globe flower, pictured right) are regularly assessed and other sites visited with respect to potential development or planning applications.



Stoney Wood in Wirksworth was newly designated as a Local Wildlife Site in March 2012 following detailed survey which concluded that the site met the criteria for species-rich

grassland. Other grassland sites were in variable condition, with the most typical issues being over or under-grazing, with potential for these to be addressed through agri-environment schemes in some areas.

A number of quarry sites were visited and assessed for their conservation value. Longsidings Quarry, owned by Tarmac and managed under the company BAP for Tunstead/Old Moor Quarry, is an old settling lagoon that was filled in by the mid-1970s and allowed to grass over and return to nature. Surveys in 2011 and 2012 showed the site to be particularly species rich, sporting over 170 species of vascular plants, and six mammal species: common shrew, pygmy shrew, water shrew, field vole, bank vole and wood mouse. The Conservation Volunteers help with site management, including the removal of willow scrub, and scrape construction to enhance habitat for Lapwings.

Kieron Huston, Derbyshire Wildlife Trust

New SSSIs

Six new Sites of Special Scientific Interest (SSSIs) were notified during 2011-12, the first SSSI notifications in the Peak District since 2005. The sites, totalling approximately 44 ha, all comprise species-rich hay meadows. SSSI notification recognises the national importance of these sites and affords them statutory protection. The importance of these sites was originally identified through the National Park Authority's 'Meadows Beyond the Millennium' project in 1995 and a number of the sites have been managed under agri-environment scheme agreements since, but until now the sites have had no statutory legal protection.

Further hay meadow surveys were conducted during the summer of 2012 with a view to additional designations if appropriate.



GRASSLANDS

SITA Trails Project

The National Park Authority owns and manages four long-distance trails, the Tissington, High Peak, Monsal, and Thornhill Trails. The Tissington and High Peak trails comprise a mix of neutral grasslands on the flat trail-sides, cuttings, embankments and spoil tips; with calcareous grassland remaining on the original limestone hillsides and dales features; and lowland acid grassland, often with heather and bilberry, is found on the brow of several cuttings. Many of the grasslands are at risk from rank grass and scrub encroachment and in need of management.

Two SITA Enriching Nature grant awards in 2011 and 2012 have enabled us to introduce grazing to two cuttings (Fenny Bentley cutting pictured right); carry out mechanical scrub control and follow up treatment; and purchase a cut-and-collect machine (pictured below). The grant also facilitates the disposal of the cut material at a composting site in Ashbourne. It's also funded an ecological survey of the trails.



The Monsal Trail supports a variety of habitats on the verge, the cuttings and the embankments. Neutral grasslands dominate the trail verges and include lengths rich in wildflowers, including species typical of less intensively managed grasslands and the woodland edge. Jacob's Ladder is conspicuous particularly along the stretch east of Miller's Dale Viaduct which forms part of the Wye Valley Site of Special Scientific Interest.

On ledges on the limestone cliffs, and locally along the trail verges, small pockets of limestone grassland support species such as Grass of Parnassus, Fragrant Orchid, Bloody Cranesbill and Kidney Vetch; together with ferns, mosses and lichens adapted to the enclosed, relatively humid conditions.

The Monsal Trail is widely recognised as an important location for a number of scarce species including a few which are nationally scarce or threatened. In addition to Jacob's Ladder (pictured right), examples include Yellow Bird's-nest, Common Wintergreen, Spring Sandwort ('leadwort'), Orpine, Hutchinsia, Nottingham Catchfly, Lesser Meadow-rue and Rigid Buckler-fern. For some of these species the Monsal Trail provides the only known habitat location within the Peak District. The grassland interest on the Monsal Trail is under threat from the spread of tussocky grasses, Bramble, Rosebay Willowherb and scrub. A programme of scrub control and tree removal is in place, designed to maintain and enhance the grassland interest, maintain the visibility of geological exposures, and enhance the visitor experience by providing views off the trail.



Further improvements are on the way for all four of the National Park Authority's trails in the shape of a new five-year management plan, incorporating feedback from user-groups and the public. We're currently working on an HLS application for the Tissington, High Peak and Monsal Trails.

The funding from the SITA Trust is a vital element of the way we are improving the trails over the next five years. This is the first time we've been able to manage these important grassland habitats in such a large-scale way.

Abi Ball, PDNPA

GRASSLANDS

Hay Meadow Restoration

The Peak District National Park Authority has been undertaking hay meadow enhancement work on its Warslow Estate. Located in a central part of the Leek Moors SSSI this Estate is particularly valued for its rich upland habitats and population of breeding wading birds such as curlew, lapwing and snipe. In summer 2011 the Authority began hay meadow enhancement work on a number of meadows, and plans to create some new meadows as well.

Green hay collection (above right) and spreading (below right) was undertaken in 2011, and in summer 2012 Authority ecologists teamed up with Natural England colleagues to undertake some hand collection and spreading of specific later flowering species for introduction to these meadows including great burnet, devil's-bit scabious, ox-eye daisy and common knapweed.



These flowers are more typical of meadows that have traditionally had later cuts and some such as devil's-bit scabious are characteristic of damper swards. Meadows which support this range of species are uncommon in the Peak District. They provide an important source of nectar and pollen for insects, particularly bumblebees, when many other hay meadows have already been cut. A total of eight meadows were enhanced in this way.

Hazel Crowther, PDNPA



WOODLANDS

Dane Valley Woodland project

Over on the Cheshire/Staffordshire border of the Peak District, the ancient woodlands of the Dane Valley are having new life breathed into them, through a partnership project led by the Peak District National Park Authority. Funding from the SITA Trust and the Heritage Lottery Fund is helping to enhance and extend the network of woodlands flanking the River Dane and its tributaries.



This area is one of the largest concentrations of ancient semi-natural woodlands in the Peak District. Dominated by Oak and Birch, the woods are home to plants such as Wood Sorrel, Wood Anemone and Bluebells, and woodland birds such as Pied Flycatcher, Redstart and woodpeckers. On the rivers there are Dippers and Kingfishers.

A woodland bird survey in spring 2012 showed that compared to other Cheshire woodlands the woodlands in the Dane Valley are particularly rich in threatened woodland birds including Pied Flycatcher and Redstart. Results appear to suggest that woodlands tend to be richer in woodland birds where stock are excluded, deer pressure is low, and where a rich shrub layer is present. In 2013 we aim to extend the survey area into Wildboarclough and the Staffordshire woodlands and carry out a separate survey for Woodcock.

Woodland creation schemes, supported by the Forestry Commission (FC), are underway on five sites, totalling approximately 30 ha. All of these sites will require at least partial deer fencing, for which a supplement is available, funded through a SITA Trust grant. In addition, stock are being excluded from a few small sites with support from Natural England. A significant amount of open space will be included in woodland planting schemes; this will encourage around 50% of the ultimate tree cover to be achieved through natural regeneration, thereby helping a more natural woodland, typical of the location, to develop. One of the creation sites is on the PDNPA land known as 'The Fall' at Danebridge. A 'royal' sapling has been donated to this site, and others, by the Woodland Trust to mark the Queen's Jubilee.

Management of existing woodlands is being supported by funding from Forestry Commission and Natural England on eight holdings (including the production of six Woodland Management Plans). Typically management includes exclusion of agricultural animals, and in many instances selective thinning of the trees to encourage light to permeate the woodlands and stimulate shrub and ground flora development.

On a few sites small areas of deer fencing may prove necessary. To date 66 ha are secured within appropriate options in Environmental Stewardship (ES) and a further 66 ha in Woodland Improvement Grants (WIG).

The National Park Authority is working with more than 20 different landowners along the River Dane and its tributaries, offering guidance and support with woodland management and creation, and project partners including the Forestry Commission, Natural England, Cheshire Wildlife Trust, the Woodland Trust, United Utilities and the Environment Agency.

Rebekah Newman, PDNPA



WOODLANDS

Chatsworth Estate Diamond Jubilee Woodland Project 2012

The Diamond Jubilee Woodland (one of 60 Diamond Woods planted to celebrate the Queen’s Diamond Jubilee) is on the East Moor and highly visible from the Chesterfield to Baslow road. The site occupies two relatively flat plateaus divided by ridges of steeper ground and a steep slope to the northern end. Bracken cover is extensive with smaller areas of wet flushes and grassy flora.

Two water courses traverse the site, the Emperor Stream which was constructed to transport water to the Emperor Lake and Fountain; and Heathy Lea Brook which runs parallel to the county road at the northern end of the area.

Prior to drawing up detailed plans, a site meeting was held with the Forestry Commission, Peak District National Park, Natural England and English Heritage to assess the potential and constraints, and discuss proposals for the area.

The subsequent proposals are designed to establish diverse native woodland with a range of habitats from dense shrub to open ground, and scattered trees and shrubs. Woodland edge habitat will be maximised by the creation of wooded glades around the perimeter, adjacent to the water courses, around the rocky outcrop, and around some of the more diverse ground flora such as wet grassy flushes. This will create significant benefits for a range of wildlife and encourage declining woodland bird species.

Landscape has also been taken into account and features such as the rocky outcrop on the steep slope will be framed by trees and shrubs, but not obscured from popular viewpoints.

Potential archaeological features have been identified adjacent to the Scheduled area south of the proposed woodland and a small section within the area to be fenced.

The first priority was the removal of the bracken cover by spraying with herbicide; applied using low volume sprayers fitted to low ground impact equipment. The area is enclosed with rabbit and stock fencing; with suitable access gates situated in the fence to maintain visitor access.

Funding for the project is from the Forestry Commission Woodlands for Birds Scheme which supports habitat enhancement for species such as the Spotted Flycatcher (pictured left).



The Duke and Duchess plant an oak tree (right).

**Roy Lingard,
Head Forester,
Chatsworth Estate**



WOODLANDS

Clough Woodland Project

The Clough Woodland Project is a pilot project which aims to demonstrate how land-use change at a catchment scale can be delivered using a partnership approach, and provide benefits to water quality, flood risk and biodiversity.

The project aims to identify and develop schemes to establish 800 hectares of native clough woodland in the upper Derwent catchment and part of the Dark Peak Nature Improvement Area.

This will be achieved by working closely with landowners and managers to raise awareness of the benefits of clough woodland creation. The project will support landowners and managers to create woodlands using funding from both the Forestry Commission and Natural England.

Rob Twiggs has been appointed as Clough Woodland Project Manager for twelve months by the Peak District National Park Authority, within the Moors for the Future project team.

The project is funded by the Environment Agency, Forestry Commission, National Trust and Royal Society for the Protection of Birds.

The Clough Woodland Project supports the delivery of the Dark Peak Landscape Strategy and BAP objectives and targets.

Rob Twiggs, Clough Woodland Project Officer



Pictured above: an unwooded clough, compared with a wooded clough

Conifer Restructuring

Sheffield City Council's Woodland section has put most of its commercial conifer plantations in the Peak District - around Bradfield (pictured right), Ewden Valley, and Redmires - into the Forestry Commission's WIG 80 scheme, many of these are due for major harvesting and restructuring which will allow for more native woodland to be restored. 2011-12 was the second year of this five year project.

Plans are also being developed currently for the restructuring of Lady Canning's Plantation.

Ted Talbot, Sheffield City Council



WOODLANDS

Novel Nestboxes

At Dove Stone Reservoir 2.5 ha of conifer plantation has been restructured and replanted with native broadleaves by RSPB staff and volunteers, and two ponds created in 5 ha of newly converted woodland. 100 nest boxes have been installed over approximately 8 ha of converted woodland, including innovative natural nestboxes carved out of stumps by RSPB staff and volunteers (pictured).

Kate Hanley, RSPB



Ash Dieback

Ash dieback is a serious disease of ash trees caused by a fungus called *Chalara fraxinea*. Trees affected by the disease suffer leaf loss and crown dieback, and they usually die.

Whilst there are still many unknowns, experience from the continent suggests that the disease cannot be stopped and it is likely that around 60-90% of the UK's estimated 80 million Ash trees will die over the next 20 years. Based on current information it seems likely that Ash Dieback will reach the Peak District within the next three years, possibly much sooner. The consequences in the Peak District are likely to be: significant long-term impact on the landscapes of the White Peak plateau and dales which are enjoyed by millions of people each year; probable replacement of Ash by Sycamore (non-native) in the internationally important limestone dales woodlands, with associated loss of biodiversity; financial impacts through loss of Ash as a timber crop; cost of managing dying trees (at perhaps £100+ for a mature tree) and planting replacement trees; and any impacts on tourism.

In line with the national action plan the Authority has been working with partners to:

- Help with the national survey led by the Forestry Commission
- Identify and survey all young Ash plantings in the Peak District to ensure removal of any infected plants and slow the spread of the disease
- Implement biosecurity measures
- Reassure the public that the National Park is "open for business as usual"
- Disseminate information and raise awareness amongst tree contractors, nurseries, parish councils and the public
- Raise awareness of the Peak District's importance for its Ash woodlands
- Consider research needs
- Consider options for future long-term tree and woodland management



MOORLAND FRINGE

Grassland Fungi

Surveys continue to highlight the significance of the Peak District for grassland fungi, with several sites of national importance having been identified; including a record of one species which may be new to science. Particular concentrations of rare and important grassland fungi are associated with unimproved grassland (neutral, acid or calcareous) which is well-drained, with no soil disturbance, and with a history of regular cutting or grazing, keeping the sward relatively short.

Recent surveys of in-bye land on and adjacent to the Roaches estate in Staffordshire have identified two areas to be of national importance, with notable species of higher conservation concern including:

- Pink waxcap (*Hygrocybe calyptiformis*) - a former BAP species (pictured below right);
- Crimson Waxcap (*Hygrocybe punicea*) - the main indicator species for waxcap grasslands according to Rotheroe (1999);
- Big blue Pinkgill (*Entoloma bloxamii*) - a large, chunky slate blue pinkgill on the UK BAP and Red Data List (pictured below left);
- *Entoloma cuspidiferum* - a rare pinkgill with only 17 UK records; and
- Beige coral (*Clavulinopsis umbrinella*) - a rare fairy club and a UK Red Data Book species (pictured right above).



Surveys on the Eastern Moors Estate revealed the importance of one particular area for grassland fungi. This piece of acid grassland has now been fenced out from the rest of the moor and is managed by limited sheep grazing to benefit both lichens and waxcaps. In addition, an action plan and funding from the Dark Peak NIA is now in place to restore a suite of hay meadows at Curbar Gap.

Roy Taylor, RSPB

MOORLAND FRINGE

Practical Ponies Help Heathland

A small area of limestone heath is being managed by a string of Dales ponies at Alsop Moor plantation north of Ashbourne.

We have been managing the site for quite a while now, but it had become quite overgrown since the last management in the 1980s and 1990s, with only small discreet areas of heathland remaining between large trees.

Over the last four years we have more than doubled the open areas, leaving a large open central moorland inside the Alsop Moor plantation. National Trust rangers and volunteers have spent time felling trees and keeping tree regeneration on the open areas in check.

In 2012 we introduced pony grazing in the summer and autumn, which has had a big impact in terms of reducing bramble, rosebay willowherb and tree regeneration. They also kept the grass in check which otherwise can grow over knee height. The only thing they don't seem to like eating is sycamore, which we take out with volunteers.

Future management will include further tree felling, keeping the regeneration in check but also trying to increase the density of heathers and bilberry.

Mark Cunningham, National Trust



The Sheffield Fringe

Wyming Brook Nature Reserve offers a little bit of wilderness on the western edge of Sheffield, with easy strolls by the streams or higher, rockier routes with dramatic views of the Rivelin Reservoirs and the City beyond. The reserve is part of the Eastern Moors Site of Special Scientific Interest and comprises stream, woodland and heathland habitats. Work has been underway to create a softer scalloped woodland edge where it meets the heathland. Three hectares of young birch with bilberry and heather understorey has been thinned to create glades and allow light into the ground flora to benefit invertebrates and birds.

Annabelle Kennedy, Sheffield Wildlife Trust

RIVERS & PONDS

Derwent Land Management Project

This collaborative project seeks to deliver flood risk and Water Framework Directive (WFD) benefits through a variety of land management changes in the Derwent Valley. This is an approach that has been used on a number of Defra pilot partnership projects, including Making Space for Water, with Moors for the Future. Working in this catchment provides the link between our work with Moors for the Future in the uplands and Derby City in the lowlands. The Lower Derwent Flood Risk Management Strategy identified the land management approach as a way of adapting to climate change.

Changes in land management means working with natural processes to reduce flood risk and improve water quality. For this particular project it includes woodland planting and management; meadow restoration; planting of buffer strips; and the creation of woody debris dams (pictured right), all of which aim to reduce run-off and/or diffuse pollution. There is strong evidence from the research arm of the Forestry Commission, that small scale catchment land management approaches of this type can deliver flood risk benefits by reducing and delaying the flow of water downstream.



Although it may be difficult to quantify the flood risk benefits, this approach will also deliver a wide number of other benefits, particularly WFD benefits. This project will tackle diffuse pollution on a number of the Derwent tributaries, where this has been identified as a reason for failure. There will be significant biodiversity gains including delivery of BAP targets for the Peak District.

The Derwent catchment has been identified as a priority area for woodland creation by the Forestry Commission. They have welcomed our proactive approach to delivering land management change, and see this as a real opportunity to demonstrate how this partnership approach can be effective in making a difference to the water environment.

The project manager is already working with the National Trust and Derbyshire Wildlife Trust, who have funding approval to deliver significant projects in this region. There is a real opportunity to influence the outcomes of these projects to deliver benefits for us, as well as the lead partner's project objectives of biodiversity and natural heritage.

In addition to supporting a number of multi-partner projects, the project manager will work with existing land advisors in Natural England and the Peak District National Park to engage the farming community to consider how they manage their land. We will work with them to identify improvements they could make using Forestry Commission grants and the Environmental Stewardship grant schemes.

Through the project manager, this project also aims to raise awareness of both flood risk and water quality issues, by continuing to provide advice on strategies, management plans and planning guidance of external organisations and authorities.

This project seeks to demonstrate how land management change at a catchment scale can be delivered using a partnership approach. It will provide case studies to inspire future projects, both for the Environment Agency and the Forestry Commission, and landowners. Internally, this project will demonstrate how flood risk and WFD benefits can be achieved through this type of 'cross-functional' Agency approach.

Alison Baker, Environment Agency

RIVERS & PONDS

Ponds

Since the end of the SITA Trust funded Proliferating Ponds project, pond restoration has been continuing thanks to proactive work between the National Park and landowners. Depending on the nature of the work, either specialist contractors or volunteers have been involved.

With volunteers, work typically involves clearance of dense overgrown vegetation and silt to enable assessment of the pond's ability to hold water. Then if necessary, further work is carried out by contractors such as installing a geotextile liner and repairing stone setts. Other specialist works done by contractors include concrete crack repairs and GRP (glass reinforced plastic) repairs. Any boundary works are considered very carefully to ensure there are no conflicts with landscape issues, but tend to be only carried out if cattle graze the surrounding area.

Over the years conservation volunteers and contractors have had a very important role in successful pond habitat restoration and subsequent colonisation by Great Crested Newts. Without this work the available habitat for this protected species across the White Peak would be much reduced. 43 sites (comprising 90 ponds) were surveyed in the Peak District by Derbyshire Amphibian and Reptile Group in 2011, of these 21 had Great Crested Newts present, nine of which were new records.

Suzanne Fowkes, PDNPA



A pond cleared by contractors, with great crested newts nearby



Derwent & Upper Dove Catchment Non Native Species Partnership

In 2010, after some years of joint effort on individual sites it was decided that a strategic approach to Himalayan Balsam control was needed from the top of the catchments down in order to successfully control this invasive plant from source, to determine the extent; and develop a strategy to include Japanese Knotweed, Giant Hogweed, American Mink and other priority Invasive Non-Native Species.

With limited resources, we have pooled skills, knowledge and volunteers to work together on controlling non-native species. Mapping invasive species has allowed us to tackle these problems efficiently, taking a strategic approach – starting from the top of the catchment at the source of the problem and working our way downstream.

The vast majority of this work to date has been undertaken by volunteer teams and individuals from partner organisations and has covered approximately 20km of main river controlling Himalayan Balsam (right), expending over 200 volunteer days.

We have produced leaflets, posters and magazine articles to raise awareness and promote best practice. Talks, one-to-one visits and two workshops targeting angling clubs, conservation groups, landowners and the general public have allowed us to share knowledge and experience and develop an approach for best practice. We still have a long way to go, but by involving local volunteers, landowners and contractors we aim to encourage ownership and responsibility of stretches of the watercourses and so move the project onto a sustainable footing in the future.



Frances Horsford, PDNPA

PRIORITY SPECIES

Farmland Waders

Peak District Wader Recovery Project

The plight of farmland wading birds, principally Lapwing, Curlew and Snipe here in the Peak District reflects that of elsewhere in the UK. Nationally populations are declining, and Lapwing numbers have crashed by a staggering 50% over the past 30 years. Results from the latest nationwide breeding bird survey (2011) revealed that Lapwing, Curlew and Snipe numbers have reached their lowest levels in the UK since the survey started in 1994.

What has caused such drastic declines of our much loved farmland waders?

The reasons for wader decline are complex. Failure to succeed at nesting is the main reason, with chick mortality being the main determinant of poor productivity. The most devastating factor has been the loss of traditional breeding sites through farmland intensification, which has led to landscape-scale drainage of fields that used to be damp and boggy. Traditionally managed, late-cut, diverse hay meadows have been replaced with early cut monocultures of rye grass silage. As a result, the Peak District's wading birds have fewer areas in which to feed and successfully raise their chicks.



Landscape changes, including the decline of mixed farming in favour of sheep rearing, and increased afforestation, have not only resulted in habitat loss and displacement for birds, but have provided additional refuges for predators of ground nesting birds. Moreover, the dominance of sheep farming not only results in reduced feeding opportunities for wader chicks, but their grazing produces a short heterogeneous sward which may cause nests and chicks to be more visible to predators.

Coinciding with the decline in wader numbers, there has been a sharp rise in generalist predator species in recent decades, with numbers of Carrion Crows, Foxes and Badgers all continuing to increase. There is growing evidence to show that predation is limiting populations of ground nesting waders.

What does the project do to help?

The Peak District Wader Recovery Project (a joint project between Natural England and the National Park Authority) was set up to reverse the long term decline in the populations of farmland waders. Through working with farmers and land managers and encouraging them to make small changes we can help nesting waders breed successfully. Through using appropriate grazing levels, restricting machinery operations during the breeding season, controlling invasive rushes, and providing wet chick feeding habitat through the creation of wader scrapes, we can help increase the amount of suitable habitat.

Additional habitat for breeding Lapwing can be provided through the introduction of a spring sown arable crop or a winter fodder crop. Cultivation provides good nesting and feeding opportunities for Lapwing, while the aftermath of a fodder crop provides plenty of areas of bare ground for nesting birds as well as tasty grubs for hungry chicks, while also providing cover from predators.

Many conservation organisations, including the RSPB, now accept that predator control is an important component of ground nesting birds' population recovery. Results from recent breeding wader surveys in the Peak District appear to substantiate this information since breeding wader productivity is generally higher on in-bye pasture situated next to Grouse managed moors. Through moorland management and predator control, gamekeepers have benefitted colonies of Lapwing, Curlew and Snipe on moorland and adjacent habitat and many take an active interest in the conservation of waders on their patch.

PRIORITY SPECIES

Research

Using volunteer support from local bird groups, the wader recovery project monitors breeding waders within defined hotspots in the Peak District. At certain sites, more intensive monitoring is undertaken to measure nest survival and productivity. In the past breeding season we installed high quality nest cameras (pictured right) at key Lapwing breeding sites. This monitoring will inform future management of sites through Environmental Stewardship as it will help reveal the main causes of nest successes and failures. Additionally we placed small data loggers in Lapwing nests. These record nest temperature continually, so that if a nest is predated, the timing of the change in temperature is indicative of the likely predator.



Temporary electric fences can be effective in minimizing the impact of ground predators and offer a promising short-term method to increase fledging success. At one key site, where productivity is poor, and Badger had been identified as a nest predator, we installed an anti-predator fence to deter Badgers from entering during the breeding season. While these methods may be effective in the short term, they may be too interventionist and unsuitable for use on a wider landscape scale.

A more sustainable solution is to create favourable nesting areas close to a good food source in order to attract more birds, encourage them to breed in higher densities and therefore fend for themselves. Also, habitat can be manipulated to make it less attractive to predators through providing habitat such as fodder crops to provide some concealment for chicks, and the removal of scrub and predator perches.

With this project we have an opportunity to not only help waders, but through generating farmer support and interest through flagship species like Lapwing, we can help improve overall farm biodiversity through encouraging sympathetic management practices, to create healthy balanced ecosystems and increase the abundance of wildlife on farms. *Tara Challoner, Wader Recovery Project Manager*

Fire Rescue

A Curlew nest came within a metre of being destroyed by a devastating moorland fire in May 2012. Fire fighters from Derbyshire Fire and Rescue Service acted quickly when the fire broke out at Beeley Moor. Their efforts contained the damage to an area of around 29 acres.

The following day National Park Authority ranger Pete Bush was assessing the damage caused when he came across a Curlew nest less than one metre from the point where the fire was stopped.

Pete said: "When I arrived at the nest there was one chick hatched and one egg intact. An adult bird was calling nearby so I made a hasty retreat to allow it to return before predators found the nest and in the hope that the chick would survive despite the lack of cover."

On returning to the site a month later it appeared the chicks had survived and taken their first flight. Pete found the nest empty with no sign of chick or egg, and the surrounding moorland recovering well with fresh grass shoots appearing.



PRIORITY SPECIES

White-clawed crayfish

River Bradford update

White-clawed Crayfish are now listed on the IUCN Red List as Endangered, meaning that they are therefore considered to be facing a very high risk of extinction in the wild. This species is one of 22 UK species listed under this category (an additional 7 are listed as Critically Endangered). Once abundant in rivers and streams in this country, this species is now confined to a limited number of catchments as a result of habitat loss, pollution incidents and the introduction of the non-native American Signal Crayfish which outcompetes the native and carries the deadly crayfish plague. In the Peak District, virtually all native crayfish populations have been lost in recent decades.

Survey work in the later summer of 2011 confirmed the presence of a healthy population of White-clawed Crayfish in the River Bradford. Shortly after the survey took place, the drought took hold and significant stretches of the River Bradford dried up; despite valiant efforts from the river keeper, a number of crayfish perished due to the lack of water, and from predation by birds. Good news, though, the Bradford population is not lost, crayfish were found during a quick monitoring survey in 2012. This population is particularly significant as it is the only known river population of crayfish left in the Peak District, and it appears to have survived a crayfish plague outbreak which swept through the Bradford in the 1990s.

The local concern about the drought was so great that it sparked an extremely well-attended village meeting which was instrumental in establishing both the Bradford River Action Group, and the White Peak Rivers meetings (a grouping of senior officers from the National Park Authority, Environment Agency and Natural England).

The River Bradford crayfish are now in a perilous situation, the population has become stressed and reduced by the drought incident. Local residents are very proud of their crayfish, and we ask them (and other river users) to protect the site and the crayfish by following these simple rules:

- Please do not go searching for crayfish in the River Bradford, this population is extremely fragile.
- Never move any species of crayfish around, you risk spreading the deadly crayfish plague.
- Report any sightings of Signal Crayfish to the Environment Agency and the National Park Authority.
- Anyone who fishes in Peak District rivers or lakes should ensure that they clean and dry, or disinfect, all of their equipment and clothing between sites to prevent the spread of plague.



The dried up river bed (left) and some of the crayfish which perished (right)

PRIORITY SPECIES

Sheffield crayfish update

Work to survey populations of White-clawed Crayfish and Signal Crayfish in Sheffield rivers has continued, showing that there are very few remaining native populations without threat from signals. Just outside the Peak District the Environment Agency, with specialist input from Paul Bradley Associates, led on a project to drawdown a small section of the Porter Brook and remove native crayfish for translocation to a safer location. An outbreak of crayfish plague was recorded further downstream from this site in Endcliffe Park in 2009, and places this strong and healthy population under severe threat of loss.

Just over 100 healthy white-claws, including a large number of 'berried' females (carrying eggs) were removed from the Porter Brook and translocated to a safe headwater stream in the Peak District which has no existing crayfish population (native or non-native). It is hoped that the eggs on these females (pictured right) will hatch next summer and that the population will thrive in its new home well away from the risk of crayfish plague.



Birds of Prey

Population targets

In 2011 the National Park Authority, Moorland Association, RSPB, Natural England and National Trust met and agreed shared population targets for the Dark Peak, based on past and existing information, for the three Special Protection Area (SPA) birds of prey: Short-eared Owl (pictured), Peregrine and Merlin, with the aim of making year on year progress to achieving the targets by the end of 2015.

An independent fieldworker has been appointed to collate and validate information from local raptor groups and gamekeepers in order to monitor progress. During 2011 contacts were established with raptor groups and keepers, but fieldwork was limited.

2012 has seen more progress with fieldwork and data collation and we hope that this will provide a good foundation on which to establish a clear idea of populations and nesting success in 2013, with hopes to expand to cover other key raptor species.

Whilst challenges remain, as indicated by the loss of a Goshawk nest in the Upper Derwent last year, the five organisations are resolved to continue working together to achieve progress in reaching these agreed targets.



Rhodri Thomas, PDNPA

OTHER SPECIES

Freshwater Invertebrates

Freshwater Invertebrate Sentinels

To the untrained eye, they are hard to spot let alone identify, yet certain freshwater invertebrates have a great deal to tell us about the big issues of water quality and climate change.

Water quality

Freshwater macro-invertebrates are widely used to assess the ecological 'health' of rivers. They are particularly relevant in identifying the impacts from organic pollution but can also indicate other types of environmental stress including siltation and low flows.

The presence of pollution-sensitive mayflies (such as the False March Brown pictured above right) has been used as a measure of the effectiveness of Catchment Sensitive Farming advice and grants.



The Logjammer Hoverfly (*Chalcosyrphus eunotus*, pictured left) a Red Data Book species, was recently recorded at two sites within the National Park on two small tributaries of the River Dane. This is an indicator species for clean headwater streams with ample supplies of in-channel saturated dead wood. Staffordshire Wildlife Trust has been studying the distribution, ecology, mobility, metapopulations and conservation of this flagship species over the last few years and intends to undertake additional work in the Peak District during 2013. For more details see the website <http://www.staffs-wildlife.org.uk/page/logjammer-hoverfly>

Climate Change

The Upland Summer Mayfly (*Ameletus inopinatus*) is the only arctic-alpine species of mayfly recorded from the British Isles. Typically this is a species of high altitudes and latitudes, however, recent surveys in the Peak District have located this species in the upper reaches of the Rivers Manifold and Dove, making these among the most southerly records for this species. It is expected that as water temperatures rise with climate change, the range of this species will contract. River management works such as the installation of large woody revetments (pictured below) can have a water cooling effect which may help to retain populations of this species.

Results and ongoing monitoring of this mayfly, and others indicator species such as the Northern Summer Mayfly (*Siphonurus alternatus*), will help us identify trends as these species react to climate change. Some species are beginning to exhibit changes in size or lifecycle in response to river temperature changes. For instance, the Blue-winged Olive Mayfly (*Serratella ignita*) is historically documented to have a single generation each year, yet in 2011 2012 a second generation was recorded in the River Manifold and overwintering nymphs have been recorded in the River Wye in the winter of 2012-2013. Similarly the Green Drake Mayfly (*Ephemera danica*) has been showing temperature-related changes, with reduced size and shifting from a two-year to a one-year life-cycle.



The foothills of the Pennines will be amongst the first sensitive areas to show ecological changes, if any, to climate change and warming of rivers.

**Nick Overall, Aquascience &
Nick Mott, Staffordshire Wildlife Trust**

OTHER SPECIES

Dunlin benefits from blanket bog restoration

Dunlin is a scarce breeding bird in England, primarily associated with wet blanket bog. The English population has been estimated at 450 - 500 pairs, with the majority found in the Pennines. Surveys in the Peak District in 1990 and 2004 indicated range contraction and population decrease, however, Dunlin can be difficult to detect and standard methodologies may not give a true reflection of the population.

In 2012, 16 square kilometres of the South Pennines SPA was surveyed for breeding Dunlin, covering the National Trust's Marsden Moor Estate, the RSPB/UU Dove Stone Partnership Area and intervening areas of Saddleworth Moor.

46 pairs/territories were recorded in the two-visit survey with an additional three pairs recorded in follow-up visits. The core population (44 pairs) was found in a 10 km² area stretching from Rocher Moss/Bobus on Marsden NT land via Saddleworth Moor to the RSPB/UU Partnership land between Green Hill and Chew Reservoir. The average population density in the core areas was 4-5 pairs/km². The highest densities were recorded around the Green Hill area on relatively intact cotton-grass dominated bog, on degraded bog under restoration management north of the A635, and on the transition areas between intact cotton-grass and degraded bog under restoration north of Chew.

The survey gives good evidence that blanket bog conservation management in the survey area is helping maintain a viable population, with particularly good sub-populations recorded on areas north of A635 and north of Chew reservoir that have been subject to a range of conservation initiatives (pictured). High water tables are recognised as being an important factor in Dunlin habitat. As well as the obvious water table impact of some of the gully blocking work that has been carried out, there is also evidence that re-vegetation of bare peat is contributing to increasing and maintaining a higher water table in the peat body, which should be beneficial.



Virtually all of the survey area has seen conservation-led grazing cessation or reduction since 2007, to allow vegetation recovery, particularly on treated eroded areas. Reducing grazing pressure is advised as a key part of initiatives to improve blanket bog habitat quality through agri-environment schemes, and again should prove beneficial to Dunlin. Initiatives to increase *Sphagnum* moss abundance, both by encouraging natural expansion, primarily through controlling grazing management, and also by introduction of *Sphagnum*, should also improve habitat quality over the longer term.

RSPB

Species Monitoring

Derbyshire Wildlife Trust has been busy monitoring & recording various species on their reserves:

- Nest boxes were checked on Hillbridge & Park Wood, Mapperley Wood, Ladybower, Brockholes Wood & Broadhurst Edge. Raven bred at Hartington Meadows & Millers Dale.
- Derbyshire bat group checked boxes at Brockholes Wood and Long Clough.
- Cramside wood and Hopton Quarry were surveyed for flora.
- Bird ringing: Pullus were ringed from Ladybower nest boxes.
- Great Crested Newts were surveyed by torch at Hartington Meadows and Rose End Meadows.
- There were 36 Palmate Newts found in a small pool at Hadfields Quarry.
- Weekly butterfly transects were walked at Millers Dale and Chee Dale. These surveys were carried out as part of the national scheme run by Butterfly Conservation.
- The mammal group surveyed Cramside wood in July.



Julia Gow, Derbyshire Wildlife Trust

PARTNERSHIPS AND PROJECTS

Current Partnerships and Projects in the Peak District:

Alport Valley Project (National Trust, Forestry Commission)

Birds of Prey Project (PDNPA, Natural England, National Trust, Moorland Association, RSPB)

Calaminarian Grassland Project (PDNPA, Derbyshire Wildlife Trust, Natural England)

Calver Weir Restoration Project (Calver Weir Restoration Project, Environment Agency, PDNPA, English Heritage)

Catchment Sensitive Farming Project (Natural England, Trent Rivers Trust)

Climate Mayfly Phenology Partnership (Aquascience, Loughborough University, National Riverfly Partnership, Wild Trout Trust, Beresford Fishery, Trent Rivers Trust, Derbyshire Angling Club, Environment Agency, Staffordshire Wildlife Trust, PDNPA)

Clough Woodland Project (Environment Agency, Forestry Commission, National Trust, RSPB)

Dane Valley Project (PDNPA, Forestry Commission, Natural England, United Utilities, Cheshire Wildlife Trust, Environment Agency)

Dormouse Reintroduction Project (Derbyshire Mammal Group, Staffordshire Mammal Group, National Trust)

Dove Stone Partnership (United Utilities & RSPB)

Eastern Moors Partnership (PDNPA, RSPB, National Trust)

Lead Rakes Project (PDNPA, Natural England, English Heritage)

Living Don Project (Wildlife Trust for Sheffield and Rotherham, Environment Agency)

Moors for the Future Partnership (PDNPA, Natural England, National Trust, United Utilities, Severn Trent Water, Environment Agency, Derbyshire County Council, Sheffield City Council, Moorland Owners & HLF)

Sheffield Moors Partnership (Sheffield City Council, Sheffield Wildlife Trust, National Trust, RSPB, PDNPA, Natural England)

Stepping Stones to Nature Project (Staffordshire Wildlife Trust, Staffordshire Moorlands District Council, RSPB, PDNPA)

Twite Recovery Project (RSPB & Natural England)

Derwent & Upper Dove Catchment Non Native Species Partnership (Derbyshire Wildlife Trust, Trent Rivers Trust, Haddon Estate, PDNPA, R. Wye River Keeper, Bubnell Fly Fishing club, Okeover Fly Fishing Club, Calver Weir Restoration Project, Derwent Fly Fishing Club, Derbyshire County Angling Club, The Conservation Volunteers Derbyshire, Forestry Commission, Darley Dale Fly Fishing Club, Beresford Fishery, Chatsworth Estate, LaFarge Cement (Hope), Lowland Derbyshire Biodiversity Partnership, Tarmac, The Environment Agency.

Value in Trees Project (Derbyshire Wildlife Trust)

Wader Recovery Project (PDNPA, Natural England)

White Peak Rivers Partnership (PDNPA, Natural England, Environment Agency, Haddon Estate, Bradford River Action Group)

Woodland Birds Project (Forestry Commission)

And a wealth of local projects and groups including:

Bradford River Action Group, Bradwell Community Orchard Group, Butterfly Conservation local groups, Chapel Vision, Derbyshire Amphibian and Reptile Group, Derbyshire Mammal Group, Derbyshire Ornithological Society, Eyam Delph Nature Reserve, Furness Quarry, Silence Heritage Site, Sorby Natural History Society and many more.....

OTHER NEWS

UKBAP beetle found in new habitat

Necklace Ground Beetle (*Carabus monilis*) was recorded walking across a living room rug in Onecote. Formerly widespread, this species is now declining faster than any other British ground beetle. More typically recorded in a range of open habitats (rather than living rooms) the beetle is thought to be declining as a result of agricultural intensification.

Quarry havens

A Great Grey Shrike (*Lanius excubitor*) was spotted over-wintering at the disused Wraggs Quarry on Beeley Moor, and near Barbrook reservoir on Big Moor. The bird's Latin name literally means 'sentinel butcher', which refers to its two conspicuous habits of using exposed perches to watch for prey, and storing its food items by impaling them on thorns in 'larders'.

Three disused quarries in the White Peak are still being used by the southern Pennines population of breeding Twite; while small foraging flocks make the most of late summer seed on roadside verges and hay meadows.

Toads on Roads

A report of casualties during an annual Toad migration across Kinder Road in Hayfield prompted Derbyshire County Council's traffic team to put up Toad crossing signs ready for the 2013 season.

Birds of Prey

Several sightings of Red Kite, Osprey, Hen Harrier, Goshawk, Merlin, Hobby and Peregrine were recorded by Derbyshire Ornithological Society during 2011 and 2012 in various parts of the Peak District.

Moor Improvements

Royal Fern (*Osmunda regalis*), considered long extinct in the Peak District, has been found at three different sites. Along with increasing records of Clubmosses (*Huperzia selago* and *Diphasiastrum alpinum*) and Bog Rosemary (*Andromeda polifolia*), this may possibly be indicative of the improving condition of the moorlands as a result of reduced grazing levels and air pollution.

One and Onlys...

The riffle beetle (*Riolus subviolaceus*) which is protected under EU Directive Annex II Habitat Schedule 5 was recorded in the River Hamps and the River Dove at Beresford Dale.

Headwater streams surveys and assessments included a study of Kirksteads Brook and a first Staffordshire county record for the Nationally Scarce soldierfly, the Hill Soldier (*Oxycera pardalina*).

The diving beetle *Agabus affinis* has been re-found in a pool on the Eastern Moors - its only location in Derbyshire. In 2011, natural succession was reducing the open water habitat for this beetle, but the pool is now being managed to keep it open.

SUMMARY

"It is so rewarding and encouraging to hear of the real progress that has been made, in the case studies of the many projects and partnerships, to safeguard and enhance the quality of our wildlife, landscapes and habitats in the Peak District over the last two years.

The natural environment of the Peak District is valued by so many people, and we are realising more and more the need to safeguard its natural assets for now and for the future.

We hope that the establishment of the Peak District Local Nature Partnership will help to champion the value of the natural environment to an even wider audience and create a step-change in commitment, understanding and action to achieve even more by 2015!"

Geoff Nickolds, Chair, Peak District Local Nature Partnership



