



LANCASHIRE'S
BIODIVERSITY
PARTNERSHIP



2010 International Year of Biodiversity



Delivering Biodiversity In

Lancashire



Cover Photographs: Top, A view of Pendle Hill by John Lamb, and Bottom, Morecambe Bay coastal habitats from Warton Crag, by Tim Graham.

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Produced by Lancashire Biodiversity Partnership, March 2011, and edited by Tim Graham. We would like to acknowledge and thank all the authors and contributors for their articles, which we have tried to use to show the breadth and variety of work being completed by partners in Lancashire. Due to space, not all could be accommodated.

www.lbap.org.uk

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A View of the Morecambe Bay Limestones Landscape – Tim Graham

THE BIODIVERSITY PARTNERSHIP

Lancashire Biodiversity Partnership started work in 1998, with its first task creating the Biodiversity Action Plan ([BAP](#)) for Lancashire. This was published in 2001, with the aim of setting out the priorities for conservation action at a local level, and looking at both [UK Priority Species and Habitats](#) relevant to Lancashire. It follows the strategy and framework which developed as a result of the [Rio Earth Summit](#) in 1992, and has been evolving steadily to meet the demands of conservation, which aims to integrate international obligations with local action and delivery using the Biodiversity Action Planning process ¹. The partnership has a straight forward aim:

The Partnership will aim to work together with other members of the Partnership in order “to conserve, protect and enhance the biological diversity of Lancashire for current and future generations.”

More detailed information can be found in the [detailed section](#) towards the end of this document. The important things to note for the partnership are not only that they are a proven mechanism to focus resources to conserve [biodiversity](#) ² (the wildlife and landscapes around us), but also allow all interested parties to be involved in the programme of action and bringing together the expertise to review Lancashire’s wildlife resource, identify priorities and targets, monitor progress and raise awareness around conservation and work to deliver action in Lancashire.

THINKING BIGGER

The way the partnership works is informed by local needs from the bottom, and a national strategy/framework ^{3,4}. The most recent framework, *Securing Biodiversity*⁴, has pushed for more [large scale working](#), integrating further across other agendas and adapted the [UK BAP](#) to better deliver its objectives. 2011 will also see a new Biodiversity Strategy and the [Natural Environment White Paper](#), which will set out how conservation develops into the future ⁵; in particular achieving productive landscapes for people and biodiversity in the face of new [international targets](#) post 2010 ⁶, and the current economic climate.

UNITED UTILITIES CATCHMENT DELIVERY

Ian Harper, Biodiversity Officer, United Utilities

Alongside our usual delivery for biodiversity, United Utilities have developed innovative landscape scale thinking into their land management.

In the past many thousands of acres of moorland were drained by open ditches or ‘grips’, in line with the agricultural policy of the time, to grow more grass by drying out these areas of uplands. Serious erosion, loss of habitat and a lowering of the water table has resulted. This creates a much dryer and degraded habitat.



In April & June UU staff and tenants were active in assisting the Lancashire Fire & Rescue service combating uncontrolled fires deliberately started on Longworth and Anglezarke Moors respectively. Unfortunately due to the extremely dry conditions in June the fire on Anglezarke burned over a two week period destroying peat at gully edges. Working closely with the Fire and Rescue Service, we have been able to provide suitable training facilities for off road vehicles most suited to tackling this type of fire.

2010 saw United Utilities enter a new five year asset management period and this has brought the Sustainable Catchment Asset Management Programme (Scamp2) to the Central Catchment Team based in the South Lancashire / North Manchester region. This is a partnership with the Company's agricultural tenants and Natural

England with drivers to improve raw water quality whilst marrying sustainable agriculture with biodiversity gain.

Edgerton Moss and far Pike Lowe saw 3.2km of grips were blocked and 285m of gullies were re-profiled funded by "Our Moors Our Planet"

Edgerton & Bentley Mosses situated in the north east corner of the West Pennine Moors are owned by United Utilities for drinking water catchment. Ariel photography and GPS ground surveying of the grip systems on these two mosses identified areas suitable for grip blocking and gully re-profiling. Work is carried to reduce flow velocities in the gully/grip system and help reduce erosion and raise water levels in the surrounding blanket bog. This restores peat hydrology and rewets areas of deep peat.

Bentley Moss, Musbury, 50 ha was involved with a total length of 200m of grips being treated, funded by Scout Moor Windfarm Habitat Enhancement Fund.

STEP CHANGES

As we will demonstrate further on [below](#), conservation has been moving towards larger scale work for some time. The [LBAP](#) partnerships have been central to this in the North West, and together developed some instrumental projects across the region. A great example of this is the work has its beginnings much earlier than 2008, when the current funding began, and developed the priority project for Water Voles across Lancashire, Cheshire, Merseyside and Greater Manchester.



REGIONAL WORK FOR WATER VOLES

Katie Milburn, Lancashire Wildlife Trust.

The Water vole has suffered dramatic population declines in Britain due to habitat loss and predation by American mink. Consequently, the Water vole is now fully protected under the Wildlife and Countryside Act 1981 (as amended). Limited survey work suggested that the northwest of England still supported some healthy populations of Water voles. However, until now no initiatives have been in place to ensure that this remains the case.

The Northwest Lowlands Water Vole Project (NWLWVP) aims to gather evidence to allow the northwest to be recognised as an area of national importance for Water vole conservation. It also aims to ensure that current Water vole populations within the Project area are enhanced by targeted habitat improvement works. Katie Milburn, Water vole Project Officer, along with the Project Officer from the Cheshire Wildlife Trust, conduct and co-ordinate surveys across our region with the support of volunteers. These surveys are carried out during the Water vole breeding season, which is April to September, when they are the most active. Water vole surveying involves looking for Water vole field signs such as latrines (piles of droppings), burrows and feeding remains.

Outside the survey season Water vole presence and absence data is collated and mapped. This information is then used to target landowner liaison and habitat improvement works in order to increase connectivity between isolated Water vole populations.

Habitat improvement works that will benefit Water voles, along with many other wetland species, include:

- Fencing banks to prevent overgrazing by livestock
- Creating ponds and reedbeds
- Scrub clearance and tree thinning
- Sympathetic bankside vegetation and ditch management

Involving people is a key aspect of the project. This can be submitting records of Water vole, American mink and Otter. Or, taking part in surveying - whether it's supporting the project officers, or being trained to conduct your own surveys in your local area.

Between 2008 and 2010 surveys were carried out at 630 sites across the project area. Across the entire project area, water voles were present at 37% of sites surveyed, only possible signs were found at 17% of sites and no signs at all were found at 46% of sites. Otter signs were found at only 1% of sites and mink signs were found at 6% of sites.



Ideal Water Vole Habitat in a Ditch at Hesketh Out Marsh – Katie Milburn



greater manchester
biodiversity project



Cheshire region
Biodiversity
Partnership



Lancashire,
Manchester &
N Merseyside



Enriching nature, Enhancing communities



Esmée
Fairbairn
FOUNDATION

Land owners are also important members of the community to engage, and can bring the greatest conservation gains. This could be through allowing us to survey on your land, managing your land in a Water Vole friendly way, or creating new habitat on your land.

Levels of water vole presence at sites with mink were below average but not excessively so, suggesting some coexistence of the two species in certain habitats, including agricultural drainage ditches and densely reed-fringed watercourses. Mosslands and agricultural drainage ditches proved to be the most important habitats for water voles within the project area. Levels of water vole presence were above average within the Alt and Crossens and Douglas catchments, due to particularly high levels of presence on the agricultural drainage ditches and Leeds & Liverpool Canal within these areas.

Advice have been given to land owners or managers on favourable habitat management at 51 different sites and management improvements have been implemented at seven sites.

The project is currently funded until March 2011. The lasting legacy of the project will be a comprehensive baseline of water vole distributions, within the project area, that will inform potential developments and habitat works, and against which future changes can be monitored. The NWLWVP Steering Group is keen to obtain funding to allow the project to continue beyond March

2011, either in the form of capital works within the current project area to improve habitat connectivity, or surveying beyond the current project area to extend the baseline data.

WORK OF THE PARTNERSHIP

Along with the development of the Lancashire BAP in 2001 and its current review, the Partnership needs to keep developing work priorities and contributors. It is directly involved in a number of initiatives which together combine to support the delivery of biodiversity action locally, as well as representing and raising awareness of biodiversity in broader agendas.

Some key aspects will come out in the document as you read on, with the [Local Wildlife Sites \(LWS\)](#) and [Record Centers](#) key links in biodiversity conservation. In Lancashire LWS are called [Biological Heritage Sites \(BHS\)](#), and while not protected to the level of [SSSI](#), many are of equal quality⁷ and have been noted as a key focus for future developments in any national ecological network⁸.

There are over 1100 BHS in Lancashire, covering over 25000ha.

As we will explore in the next section, recording and information is an important area for biodiversity conservation, which cannot be under emphasized. Local Record Centres are a hub of information for co-ordinating and

informing the records of species and habitats in a county, from all natural history groups. They are also important functions as part of the planning system, future development proposals and conservation planning on a broad scale. Lancashire's LRC, [LeRN](#), will be talked about in greater detail, but national network for which this represents the local level.

This information, along with the work of the partnership and the priorities for action written in the BAP documents together also work with broader agendas, where the benefits of biodiversity need to be stressed. There is increasing weight being put to the well-being and advantages brought to local communities for wildlife and conservation^{9,10}, together with the benefits of the services provided to society from functioning [ecosystems](#)^{9,10}. Conveniently termed [Ecosystem Services](#), which rolls off the tongue. This all fits to integrate biodiversity, or wildlife conservation, into the adaptation and mitigation needed for climate change¹¹ together with such planning and delivery strategies which can come from integration of these ecosystems, and our wildlife in Lancashire, within our infrastructure planning. Often termed [Green Infrastructure](#)¹².

SPECIAL INTEREST GROUPS

As well as trying to make biodiversity part of everyday thinking in all areas for the benefit of society, the partnership often encounters specific issues or areas of concern which may require the development of specific action by partners.

Within the [structure of the partnership](#), the [Technical Working Group](#) provides expertise to advise and develop the BAP documents, and where more specific expertise may be called for, or there is need for a specific programme of action specialist groups can be set up to report and meet needs.

[Two such groups](#) come from the Endangered Plants Group and Urban Working Group. The Endangered Plants Group was set up in 2003 after it was noted that over a third of plant species were [threatened](#) in Lancashire. They then set up a monitoring programme for priority species, and are currently directing effort towards delivery for species on the ground and seeking funding. The Urban Working Group has been set up to represent the varied skill sets needed to deliver conservation in urban areas, as well as review and update Lancashire's Urban BAPs.

URBAN WORK FOR WILDFLOWERS AND REDEVELOPMENT

Andy Nash, Groundwork Pennine Lancashire

Groundwork Pennine Lancashire's Contract Services team has put the finishing touches to a project which has transformed a former housing area into an attractive wildflower meadow.

One of Hyndburn Borough Council's regeneration areas, the Phoenix II site, off Blackburn Road, Accrington, is a residential area which has been demolished to make way for new housing in the coming years.

Rather than leaving the site vacant until the new housing development begins, the council commissioned Groundwork Contract Services (GCS) to create an area which serves the local community during the interim period.

After securing funding from Elevate, GCS has transformed the 8,500m² site into a useable green space which has proven very popular with local residents.

The site is landscaped with annual and perennial wildflowers and cut grass paths provide access and a neat border around the site. A natural seating area, consisting of oak and stone blocks, was also incorporated into the design.

The registered social landlord, Eaves Brook, consulted with the local community regarding the site, and local children were also involved in the project, designing artwork which appears on banners and hoarding panels around the site.

This project has provided a simple yet effective remedy for this transitional space. The scheme has involved the community, benefitted local wildlife and transformed what could have remained an eyesore for years to come into a space which adds value to the local environment.

Wildflower projects are becoming a popular choice for turning derelict or unused plots into attractive and environmentally friendly sites.



INTERNATIONAL YEAR OF BIODIVERSITY AND THIS DOCUMENT

2010 was named [International Year of Biodiversity](#), and the upcoming decade is a decade of biodiversity – trying place biodiversity conservation at the forefront of our thinking. Internationally the [Convention on Biological Diversity](#) (CBD), is the most ratified (has the most states as signatories) United Nations convention with only the US, Andorra and Vatican City still to sign up.

Started in 1992, as part of the [Rio Earth Summit](#), a headlining [target](#) was agreed ten years later to reduce the loss of biodiversity, or in the case of the EU – TO HALT THE LOSS OF BIODIVERSITY.

This target has not been met, something which is obvious to some of us working

with wildlife conservation, while we miss the fact that nearly twenty years on we are still raising awareness of the issues in wider society. It is becoming more important than ever to show the work we are doing, and how far reaching the impacts can be; relevant across all society. It is the biodiversity around us which is the visible element of the ecosystems which support us, our enjoyment and our livelihoods across the breath taking landscapes found in Lancashire and beyond.

It's not all doom and gloom, conservation can make real headway and deliver ^{8, 13}, this document intends to state how this is working at a local level for Lancashire. Demonstrating the worth of the Biodiversity Partnership locally, as part of a system proven to be integral to local conservation action².





Recording by the Endangered Plant Group at the River Lune's Oxbow Lakes – Tim Graham

RECORDING AND INFORMATION

Along with the tradition of natural history recording in Britain generally over the last two hundred years, Lancashire has a diverse history of naturalists making contributions from William Roscoe to Richard Buxton¹⁴. This reflects the origin of our learning about the environment around us, something which is just as key now as in the past. This information ultimately helps inform all planning¹⁵, as well as conservation management. It is this need for information to plan and implement appropriate measures which has made provision for decision making and access to information a key part of the [CBD](#) and therefore biodiversity work over the last 20 years¹. This data has been recognized as a key requirement for Local Authorities to be able to exercise their duty in relation to the [NERC act 2006](#)¹⁶, and along with other organisational and agency needs has meant a continued support for [Local Record Centers](#) and the [National Biodiversity Network](#) which forms a network across England for them and the recording community. It is the supporting information which has been seen as a ‘touchstone’ for achieving [sustainable development](#) since the North West’s Biodiversity Audit¹⁷ through the support for strategic and economic initiatives.

Information, and the recording community who provide it, is a key step in deciding what action is needed and where it is appropriate. It supports BAP action, wider partnerships such as Local Record Centers and the Local Wildlife Site system, and helps provide the evidence base to integrate socio-economic issues while protecting our distinctive countryside and characteristic landscapes in Lancashire.

It is also important to stress the broad range of people involved in recording. This can be from local natural history groups, community groups, and volunteers, as well as paid project officers or ecologists from NGOs and local authorities and the like. This contribution can be huge, and probably makes up the largest proportion of the level of records held nationally, not just Lancashire (The [NBN](#) currently has nearly 6.5 million species records submitted¹⁸).

LANCASHIRE'S ENVIRONMENTAL RECORDS NETWORK

Alan Wright, Communications Officer.

Nik Bruce, Development Manager.

Only two foxes were spotted in Lancashire over the last two years and no toads were recorded during the same period!

That is the conclusion that can be drawn by looking at the National Biodiversity Network's recording maps for 2008-2010.

However the key word here is "recorded". Hundreds of Lancastrians saw foxes during that period and many more will have seen the toads that spawn in the county's ponds, but these sightings have not been reported.

The newly formed Lancashire Mammal Group will help to keep an eye out for foxes and the Amphibian and Reptile Group of South Lancashire (ARGSL) have their own extensive records for the toads, but why is there a black hole on a larger scale?

One of the reasons was the lack of a local record centre for the county of Lancashire and the fact that many recorders and recording groups kept their records to themselves.

On August 7, the Lancashire Environment Record Network was launched to fill the black hole. LERN already has more than 750,000 species records on its database. It has access to many more records and there will be a total of more than a million records in the databank, when they have all been processed. The bulk of these records come from members of the public.

Alan Wright of LERN said "LERN is the link between the people out in the towns and countryside who watch the wildlife around them, and the organizations and people who are taking decisions that will affect the environment we all live in.

How can we protect what we don't know is present?

"The records LERN holds represent only a fraction of knowledge of the biodiversity of Lancashire. The plan is to build links between existing recorders and encourage others to become actively involved in recording and reporting the wildlife they see."

LERN's core partners are the Lancashire Wildlife Trust, Lancashire County Council, GeoLancashire, Natural England and the Environment Agency.

Anyone wishing to learn more about LERN can go to the website at www.lancpartners.org/lern or email lern@lancashire.gov.uk

LANCASHIRE'S BIOBLITZ

It needed careful planning to find the right man to launch the Lancashire Environment Record Network.

Requirements included Lancashire connections, a love of the environment and an engaging way with nature lovers of all ages.

After all this was an important moment for Lancashire's biodiversity. The county was one of the few areas of the country without a local record centre and this hole



Lancashire, Manchester & N Merseyside



Bill Oddie at the BioBlitz – Alan Wright

needed filling by a big personality.

Step forward Rochdale-born TV naturalist Bill Oddie who said: “After a lot of travelling I found it good getting back to a good old British reserve . . . in the rain. And it sounded an interesting event.”

The event former Goodie Bill was talking about was the Lancashire BioBlitz, a 24-hour survey of Cuerden Valley Park in Bamber Bridge, to discover as many species as possible, involving scientists, naturalists, parents and children. It was one of 30 similar events taking place all over the country during the summer.

But the Lancashire BioBlitz was also the launch of LERN. The 1,000 plus records were added to hundreds of thousands on the database and many more still on paper. At present the total number of records in LERN’s hands stands at well over a million.

Organiser and LERN Communications Officer Alan Wright recently chaired a forum at the National BioBlitz Conference in Bristol. He said: “While I am proud to say our event was one of biggest in the country, the event in Bristol proved to me that getting people involved in the environment can be exciting and dynamic.

“A lot of people at the neighbouring green communicators’ conference had not heard of BioBlitzes, but they will be aware of them now. I can see them taking off in the summer of 2011 with 24-hour events and smaller surveys taking place nationwide.

“For me the high points of the BioBlitz in August were the looks on the faces of children as they were shown some of the beasties that live in Cuerden Valley Park

and also bushes and fields full of naturalists waving nets above their heads. Bill Oddie stayed longer than expected which proved that the event was going well and that he is a really nice fellow!”

The final total was 1005 species found by 70 naturalists and more than 1,000 members of the public.

A number of events are being planned in Lancashire for 2011 and anyone interested in getting involved or wishing to organise their own BioBlitz can check out the national website at <http://www.bnhc.org.uk/home/bio-blitz/national-bioblitz.html>

A FLORA OF NORTH LANCASHIRE

E. F. Greenwood, vice-county recorder for North Lancashire.

It is fitting that in the 2010 International Year of Biodiversity an account of the flora of northern Lancashire is nearing completion for publication in 2011/12.

The work is the culmination of systematic surveys of the region over the last 45 years by many individuals, members of local natural history societies and the Wildlife Trust. The core part of the proposed publication of about 600 pages is devoted to an account of the occurrence of over 2000 species of flowering plants and ferns that have been found in northern Lancashire since 1964. The distribution of species occurring in six or more places are mapped at the tetrad (2 x 2km

squares of the National Grid) level, most of these can be seen already by consulting the web site of the Botanical Society of the British Isles (www.bsbi.org.uk).

In addition to the systematic account introductory chapters describe the region’s vegetation and its landscape history whilst the concluding chapters use the data in the systematic section to describe and postulate reasons for changes to the flora. They also describe the ecological and geographical character of the flora and areas of greatest and least floristic diversity. The work reveals that northern Lancashire has an exceptionally diverse oceanic flora where the mosaic of peatlands and woodlands belongs to one of the world’s rarer major vegetation types.

This is the first attempt at describing the flora of the whole of northern Lancashire and in describing change uses data from archaeological excavations (e.g. Roman deposits at Lancaster and Ribchester), manuscripts and museum specimens.

It is the culmination of a lifetime’s work for the author and provides a baseline study, which can be used in education, planning and conservation in the region and beyond.

Detailed studies of the region’s flora will continue with online updates as well as by more traditional publications but it is unlikely that another Flora will be produced until after 2050.

ENVIRONMENT AGENCY GATHERING SPECIES INFORMATION

*Jana Kahl and Alison Whalley,
Biodiversity Officers, Environment
Agency.*

OTTER SURVEY

Each year staff at the EA are involved in Otter survey, and in June 2010 a survey was carried out on the river Lune and Wyre.

100 sites were surveyed, 70 of which were positive for otter signs. This shows a large increase from the previous survey in 2007 when only 37 sites were positive. Otters are found throughout the Lune catchment, and subcatchments of River Dee, Wenning, Greta and Rawthey with some evidence on the river Wyre. Dry weather conditions allowed plenty of evidence to be seen and 17 new sites across the catchments were found, including small upland streams.

Regular reports of sightings of otters in urban areas like Lancaster show the animals can adapt and tolerate some disturbance, and mean that more records may be submitted. This does need people to submit their sightings, and if accurate they could be contributing records to show where otters are found across Lancashire.

Positive Otter surveys increased from 37% in 2007 to 70% in 2010.

FYLDE WATER VOLE SURVEY

Information on distributions is important for habitat management for [water voles](#), especially when water courses are narrow. The area of Lancashire around the Fylde peninsula is poorly recorded for water

voles, which means that there has been a push to increase the information on where they are found. And of course where they're not found! Some of this survey is linked to the management of drainage ditches, as when they are thin, damage can be caused to water vole habitat, this means that operations are completed slightly differently.

This doesn't mean 'no management', but simply that the ditch maintenance is completed at different times of year and to give the voles a chance to move. This allows the usual works to be completed with due regard for the protected status of the water vole under the Wildlife and Country Side Act 1981 as amended.

It also give a chance for partnership working, with local authorities and the Wildlife Trust's Water vole continuation work, to increase the level of survey wider across the area. This will also include prioritizing sites for survey effort and possible assessment for habitat quality.



**Lancashire,
Manchester &
N Merseyside**



An Otter – Gail Butterill

LANCASHIRE'S BIOLOGICAL HERITAGE SITES

*Sarah Gorman, Rebecca Stevens,
and Jennifer Redman, BHS project,
Lancashire County Council.*

Lancashire holds a large range of different habitats from ancient woodlands to flower rich grassland, blanket bog to ponds. These habitats support a huge diversity of plants and animals, some of which are nationally rare and threatened.

Some of these important areas are within statutory sites such as Sites of Special Scientific Interest. Other areas, which are of at least county value to biodiversity, are identified as Biological Heritage Sites (BHS). They may not have any statutory status, but many are equal in quality to SSSIs and are therefore a priority for conservation.

The BHS project is a partnership project between Lancashire County Council, the Wildlife Trust for Lancashire, Manchester and North Merseyside, Natural England and district and unitary authorities within Lancashire. It has a team of two ecologists and an assistant to deliver an increase in the number of BHS in positive management.

Many habitats within the UK require continued management to maintain their biological diversity and to prevent them from undergoing natural succession into woodland. Others, such as blanket bog, are considered to be a climax community and if undamaged by historic human activities, require

minimal intervention to maintain their biodiversity value.

Owners and occupiers of BHS are not obliged to manage them in any particular way. This means that many sites may be losing their biological diversity through lack of management or inappropriate management.

There are currently over 1200 Biological Heritage Sites across Lancashire and in 2008 only 177 (15%) were known to be in management considered suitable to maintain the features for which they were identified.

These included sites in appropriate management through Agri-environment Schemes and sites managed by the Wildlife Trust. In 2008 Lancashire County Council agreed with central government to deliver a yearly 3% increase of Local Sites under positive management for the following 3 years. For this target the term "Local Sites" includes BHS and [Local Geoconservation Sites](#).

Landowner liaison gives an opportunity to raise awareness of the value of the site and to encourage management which will maintain the interest for many years to come. Management recommendations are provided to the owner / occupier and advice given about how to access grants, such as Environmental Stewardship or English Woodland Grant Scheme. Where possible, links are made with volunteer groups or other projects, such as the Wildlife Trust [Forever Meadows project](#), to help

secure positive management of the site.

In the last year 94 BHS have been surveyed. A number of these were found to be in positive management already; some require remedial management works and unfortunately some have been found to no longer support the interest for which they were identified as BHS.

At this point in time the number of Local Sites known to be in positive management has been pushed up from 15% to 23.42% and we are on course to exceed the target of 24% of Local Sites in positive management by the end of March 2011.

On the whole we have had a very positive reaction from owners / occupiers; a number have started to follow recommendations. Some owners have applied for, or are considering applying for, grant schemes to help finance the positive management of their site.

In its work the project has raised the profile of local sites and has proved a valuable stimulus to habitat management on the ground. The project also delivers a number of additional benefits: Site surveys allow the BHS register to be kept up to date; delivering action on UK and local BAP targets; facilitating the delivery of Environmental Stewardship; we are helping enable authorities to fulfill their obligations under the Biodiversity Duty and helping meet the requirements of Defra for the management and delivery of Local Wildlife Site systems.

RECORDING AND A PROTECTED LANDSCAPE

Tony Riden, Arnside and Silverdale AONB

Importantly, biodiversity doesn't just imply the species, it also means the places, habitats and landscapes in which they live and need to survive. Designated and valued landscapes, such as AONB's, obviously have a significant crucial role and part to provide and meet the international agreements started in 1992 as a result of the Rio Earth Summit. So how are we doing in Arnside & Silverdale AONB?

Although one of the smallest in area at 75 square kilometres, Arnside & Silverdale AONB has been designated and recognised for its' outstanding natural beauty for good reason. The AONB has for example over 960 species of plants

recorded by Arnside Natural History Society (out of a total of some 1350 plants described in the UK flora). These plants have survived up to now mainly on the array of nature reserves, Sites of Special Scientific Interest and other registered wildlife sites in the extensive, yet largely fragmented habitats and landscape features of the AONB.

There are some good success stories, such as the Lady's-slipper Orchid with the propagation and re-establishment of the plant in many new locations of appropriate habitat.

Many butterfly species are counted and monitored around the AONB and most seem to be holding their own, if not increasing, whereas butterflies are reported as continuing to decline and disappear from many other parts of the country. We seem to have an exceptional array of moth species too, with many distribution maps of moths showing their best

concentrations and diversity in the north-west in this AONB. Moths and butterflies are regarded as indicator species for the health of the environment.

Over the past ten years I have been heartened to see the AONB Management Plan incorporate Biodiversity Action Plans and commitments from AONB partners. For example, many tracts of land in the AONB have been bought by various conservation organisations and restored back to natural habitat once again, such as the work of the RSPB in creating and expanding valuable wetland habitat at Barrow Scout and Silverdale Moss, or the National Trust taking on the ant-hill grasslands and woodlands around Heald Brow and several other Silverdale properties. But the responsibility for biodiversity should not and does not rest solely with conservation organisations, it rests with us all, with the whole community. So when I hear that another farmer has gone into stewardship, I am relieved and heartened that there is another improved chance of connectivity for nature across the landscape and further opportunities for species to return.

Bird species seem to be doing well, with new species appearing in gradually increasing numbers and places, such as Little Egret, Peregrine, Marsh Harrier and Osprey, but others continue in worrying decline such as Cuckoo, Tree Pipit, Yellow-hammer and even the bird featured in the logo of the AONB, the Bittern. Much more work and conservation measures have yet to be applied to ensure the recovery and re-establishment of these species.



Lady's Slipper Orchid – Tony Riden

In May 2010, Lancashire Biodiversity Partnership held a conference on biodiversity to mark the successes of the work over the past ten years, but it was acknowledged that it was not all success and that there is still a tremendous amount of work that needs to be done to stop the decline and loss of biodiversity in the county, as part of the process which meets national and international obligations [LINK]. The pressures on the natural landscape from other uses and demands of society frequently conflict with the environment, to the detriment of species around us, and puts the AONB in a unique and important position.

The key steps for the future involve people, the community and society at large. The recovery in these uncertain times is before our very eyes, and can be found in our own back-yards, through inspiring and being part of the natural world. This vibrant, dynamic, interactive living planet, and I believe we all have our part to play and contribute

in the way we choose to live and work to influence this for the better.

This year, the regional and national press got hold of a glimmer of hope shown by one species of moth, the Barred Tooth-stripe (a BAP priority species) reported as being found on Warton Crag for the first time in forty years. The real truth is that the moth has been around the AONB all this time. It has been recorded by several local moth enthusiasts over the past forty years in the AONB, but no-one has taken a moth-trap up onto Warton Crag to sample for it for forty years, but when they did, it was still found there. This is an example of the importance of monitoring and knowing what is present and what is happening to our biodiversity before making bold assertions or ill-conceived conservation policies.

A current priority for the AONB is developing an effective recording and monitoring database programme and tool for the AONB, involving as many people as

possible from the local community, to gather, record and map species and habitats in the AONB so that informed decisions can be made in the future about biodiversity and conservation management. Over the past year, Lancashire has set up a Local Record Centre (LINK), which compliments Cumbria's recently set up record centre. This resource of biological data is available to partners, and within the AONB I hope to develop a focused biodiversity register. This will be particularly important with respect to Biological Action Plans and species under threat of loss of habitat and help inform the AONB Management Plan process for the good of biodiversity.

So, to conclude, in this celebratory year of the International Year of Biodiversity 2010, we can all begin to play our part and really make a difference for our wildlife, AONB and contribution to the wider society and the planet. Go forth and record! Please get in touch with us at the AONB office if you would like to help and be part of this.



Barred Tooth-Striped Moth – Tony Riden



Stodday Marsh – John Lamb

LANDSCAPE AND PARTNERSHIP

Conservation has been looking and thinking bigger across our landscapes for some time [19, 20, 21, 22, 23](#), a fact recently highlighted as part of the way forward in [Making Space for Nature](#) ⁸. Though this can get many names, it is the current priority for work as set out in the [England Biodiversity Framework](#) ³, and something partners in Lancashire have been working towards for some time. The key aim of this work is to deliver for wildlife and people across the broadest possible scale: bringing networks of wildlife sites into the best possible condition, increasing their size and number, buffering sensitive sites, allowing areas to be connected and species to move, and integrating wildlife within any land-use. To do this we need to work in partnership in the broadest sense, and demonstrate the benefits of functioning ecosystems to communities and the unique character of Lancashire which they support. This section will demonstrate the wide range of work delivering in partnership for the county.

WORKING WITH LAND OWNERS

RSPB SUPPORTING RURAL WILDLIFE

Andrew Gouldstone, RSPB

For over 10 years, across the north-west, the RSPB has been working locally with farmers to provide practical management advice on how to support declining birds and other wildlife on their farms. We may well have been doing just this on a farm near you!

Since the mid-1970s, there has been a well documented and dramatic decline in some of our much loved and well known farmland birds,

such as lapwing, skylark, grey partridge and tree sparrow.

Research by the RSPB and others has helped identify the reasons for these declines, and also what needs to be done to help these birds to return. And its not just been birds – other farmland wildlife such as the brown hare, bumblebees and arable flowers have also struggled.

Having identified the problem and the answer, we have worked hard with both the EU and the UK government to see the introduction of agri-environment grant schemes, which make payments to farmers to support them for the good conservation work they undertake on their farms. These agri-environment schemes now include land management options that will

directly benefit the birds and other wildlife that have declined the most.

Locally, here in the north west, we have 7 members of staff who are helping farmers to get these conservation grants. The Environmental Stewardship Scheme, the current agri-environment grant scheme, is managed by Natural England. Because we can back-up our advice with support to get this grant money, our work is not only helping wildlife, but also farm businesses.

From tree sparrows and corn buntings in lowland Lancashire, to breeding lapwing and redshank in Bowland, the RSPB is helping farmers to support important farmland birds.



RSPB's Rotary Ditcher in action – Andy Gouldstone

winter stubble and wild bird cover advice has delivered 25 schemes covering 3700ha of arable farmland in north cheshire and lancashire.

Similarly it might include talking to farmers about how to manage wet grassland for breeding waders like lapwing and redshank. Advice here will include how best to graze the land with cattle, and how to control water levels. In Bowland, working with the AONB and other partners, we have given advice to over 130 farmers, and 75 of these are now

delivering good management for breeding waders via an agri environment scheme agreement, that we have helped them to get.

12,000m of new shallow ditch created with RSPB rotary ditcher, improving 130ha of damp grazing pasture for breeding waders

Across the north-west, we have been working with farmers to support tree sparrows. We have provided nest boxes and feeding stations on over 60 farms in the

region. Many of these farms are now doing even more, by providing beneficial land management via the Environmental Stewardship Scheme.

We are working with farmers around Morecambe Bay to create new wetlands for birds like lapwing and maybe bittern. If we can get more wetlands along this important coastline, then we hope the bitterns at our Leighton Moss reserve will have new wild places to move out to. This is our *Morecambe Bay Futurescapes* work, where we are working closely with lots of other partners, especially Natural England and the Environment Agency.

Through our Volunteer & Farmer Alliance project, we are also doing free bird surveys on farmland, which helps farmers to target conservation management at the species they have on *their* farm. Recently our V&FA project has also been gathering brown hare data, to contribute to the new North West Brown Hare Project, part of the Lancashire BAP.

Since its launch in 2000, V&FA has surveyed 104 farms in Lancashire.

None of this work would be possible without the interest and enthusiasm of the farmers involved. The Environmental Stewardship Scheme is managed by Natural England, with whom we work very closely.





Created wetland – Seamus Eaves

FRECKLETON MARSH

Seamus Eaves, FWAG

Freckleton Marsh is located to the east of the village of Freckleton and is adjacent to Newton Marsh SSSI in Lancashire. Formerly it was saltmarsh, but reclamation works in the 18th century to turn large areas of the saltmarsh to farmland meant that this 70 ha site became freshwater grazing marsh grazed by cattle and sheep.

Newton Marsh is 65 ha and when added to Freckleton Marsh it means that 135 ha of wet grassland will be managed in the future to benefit breeding wader populations.

In 2008 the Freckleton Marsh Graziers Association contacted the Farming and Wildlife Advisory Group (FWAG) as they were interested in restoring the marsh with support from the agri-environment scheme Higher Level Stewardship (HLS).

Over the years the marsh has gradually dried out and the number of breeding waders on the marsh have declined. The RSPB, who employ a seasonal Black-tailed Godwit warden on the adjacent

Newton Marsh, have surveyed Freckleton Marsh annually from 2001.

The number of breeding Lapwings have declined from 20 pairs to perhaps just 1-2 pairs.

The aim of the project was to seek funding through HLS to make the marsh more attractive to breeding waders with an aim to steadily increase the numbers of Lapwing and Redshank. There is also the possibility that the European race of Black-tailed Godwit that nests on the adjacent Newton Marsh might be able to expand its population to Freckleton.

In August this year, the RSPB rotary ditcher, a large ditch excavating machine, was used on Freckleton Marsh to create 5.3km of shallow, linear ditches, that will create excellent wader feeding habitat.

The project is a partnership: Freckleton Marsh Graziers Association, FWAG, Natural England and the RSPB.



Brown Hare – Rosie Thompson

FOREVER MEADOWS

*Stephanie McGovern, Project Officer,
Lancashire Wildlife Trust*

The advent of industrialised agriculture during the mid 20th century dramatically boosted the productivity of farmland across the UK. Associated with traditionally managed farmland, wildflower rich habitats and their associated wildlife suffered great losses due to the increase in high yield, intensive agriculture and urban development.

A high proportion of species-rich neutral grasslands (particularly hay meadows) occur in areas with a flat topography and over deep soils. These are seen as ideal areas to 'improve' for agricultural purposes and are consequently converted into productive fields offering increased output and greater farm income. Management of these habitats has converted to silage production, involving higher levels of fertiliser input and multiple cropping, preventing wildflowers from flowering and setting seed, which eliminates most of the nature conservation from the site.

Unimproved lowland meadow habitat, and the biodiversity it supports, represents perhaps the greatest ecological casualty of intensive agricultural practices. Since the middle of the 20th century, 97% of lowland meadows have been lost and lowland meadows are now listed as a BAP priority habitat. These communities can support a wide range of species, including some scarce and decreasing plant species, threatened bird species, and a diverse community of insects.

The scale of the loss and fragmentation of unimproved lowland meadows has proven unsustainable for a number of species that are supported by this habitat:

Two bumblebee species have become extinct in the UK during the 20th Century

Six bumblebee species are BAP listed as priority species for conservation action

Specialist grassland butterflies have become highly localised due to a drastic decline in availability of the wildflowers utilised as larvae food plants

One in five native wildflower species is currently threatened by extinction.

Unimproved lowland meadows are rare, both nationally and internationally, and are very rare in North West England.

Introducing traditional grassland management can, over time, increase floral diversity of inappropriately managed or neglected lowland meadows. Following a low nutrient input regime, and removing annual grass growth by light grazing and/or a late summer hay cut, frees wildflower species from suppression by competitive grasses (which thrive in nutrient enriched grassland).

The ultimate aim of Forever Meadows is to work with landowners to safeguard the future management of a suite of lowland meadow sites. Through the focus on Biological Heritage Sites the Forever Meadows project will aim to work predominately with landowners in the wider countryside, outside of nature reserves. Between March and mid July, the Forever Meadows project surveys lowland meadows to assess the condition of the grassland. Outside of this time, survey data are collated and management plans are written to provide landowners with appropriate management and remedial advice. The project is also able to provide funding for capital works to enable appropriate grassland management to commence.

The project is working with private landowners and local councils to increase the area of lowland meadow under positive management, increase connectivity between sites and raise awareness of the importance of wildflower meadows both for plants and the species associated with them. Working in collaboration with the BHS partnership and local councils, this project is essential in ensuring a sustainable



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future for the rural landscape, in which semi-natural habitats can continue to support, and be supported by, modern agricultural systems.

During the first year of the project, 20 meadow sites were surveyed, with 13 sites now being managed appropriately under long-term management agreements.

Capital works have been instigated and funded by the project at 8 of these sites to bring them back into favourable condition. The project is currently funded until October 2012 and during the remaining time, the project aims to increase the number of sites surveyed and the area of lowland meadows being appropriately managed.



Gait Barrows Limestone Pavement – Tim Graham



Work at Heysham Moss – Chris Miller

RESTORING OUR LANDSCAPES

OUR MOORS, OUR PLANET

Elliott Lorimer, Lancashire County Council

Lancashire County Council is perhaps unique among local authorities in directly supporting and providing leadership in peatland habitat restoration, as part of Lancashire's Climate Change Strategy. The county council recognised the fact that peatlands in the UK hold more carbon than the forests of the United Kingdom and France combined and cover a significant area of both the uplands and lowlands of Lancashire.

However, during the last two centuries, peatlands were drained in an attempt to lower the water table, dry the land and make it more productive. Other factors (such as peat extraction, overgrazing, inappropriate burning and recreation)

coupled with this drainage have contributed to significant loss and degradation of peatlands over many years, with serious future consequences, including: reduced capacity to capture and store carbon; increased wildfire risk due to drier conditions; reduced capacity to moderate flooding; loss of biodiversity and a poorer countryside recreation experience.

The benefits to society of the restoration and re-wetting of peatland habitats, over and above the improvements to biodiversity, are manifold. They can provide a range of 'ecosystem services', including: the reduction of carbon loss and promotion of carbon sequestration; increased climate change resilience; a clean water supply; moderation of flash flood risk and enhanced landscapes for inspiration and recreation.

In January 2008, Lancashire County Council established the initiative 'Our Moors, Our Planet' to support the restoration and re-wetting of blanket bog



and lowland raised bog habitats in Lancashire. At the completion of the initiative in March 2010, Lancashire County Council had supported five peatland projects across the county; helping to:

Restored 94.5ha of blanket bog and lowland raised bog habitats, re-profiled and re-vegetated 5.2km of gully edges, blocked 3.1km of moorland grips

The investment of £90,000 from 'Our Moors, Planet' helped to unlock additional 'match-funding' of over £345,000 for these projects.

Since the completion of 'Our Moors, Our Planet', Lancashire County Council has led the development of the Lancashire Peat Partnership. The partnership (comprising representatives from the County Council, Environment Agency, Natural England, Forest of Bowland AONB, Pennine Prospects, United Utilities, West Pennine Moors and the Wildlife Trust for Lancashire, Greater Manchester and North Merseyside) seeks to co-ordinate planning, delivery and monitoring of peatland restoration projects within Lancashire and its border areas. It is intended that through this co-ordination and prioritisation work, partners can avoid duplication and maximise increasingly limited resources.

MORECAMBE BAY WILDLIFE NETWORK

John Osborn, Natural England

The Morecambe Bay Wildlife Network (MBWN) was formed in 2009 to bring together the key environmental, wildlife and tourism organisations working within the Morecambe Bay area. Together, the network aims to implement an exciting and ambitious 50 year vision to enhance and promote the rich and varied wildlife

sites across the project area. Within this large area lies a smaller 2010 – 2013 focus area which focuses on an area around the north-west part of Morecambe Bay and includes the RSPB reserve of Leighton Moss and Arnside and Silverdale AONB.

Running within the MBWN is the Wetland Vision scheme which concentrates solely on wetland habitats.

To date, the project has completed restoration work on 27 hectares of lowland raised bog (mostly South Cumbria), 17 hectares of grazing marsh and 290 hectares of saltmarsh; in order to bring the habitat back into favourable condition, with much more planned for the coming year.

Wetland Vision funding has also allowed the purchase of a sofrak machine; specialised all-terrain vehicle adapted to enable it to be driven across very soft ground with minimal damage to sensitive sites. Ideal for working on lowland mosses where fragile plants would easily be damaged. It will be shared amongst Wetland Vision Partners to carry out essential conservation work where other machines would not be able to operate.



View across Morecambe Bay to Heysham from Warton crag – Tim Graham



Bearded Tit – RSPB Images

Working closely alongside colleagues from Natural England, the RSPB and the Lancashire Wildlife Trust, we have achieved some really positive conservation work and strengthened our partnership links.

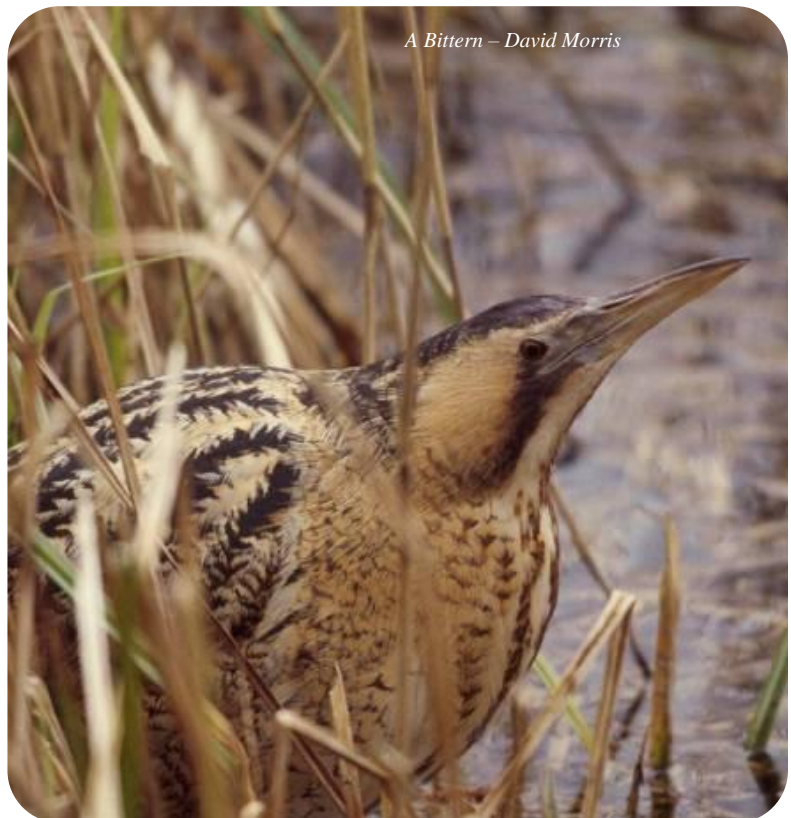
RSPB Wetland Advisor Richard Storton has been working on three farms near Morecambe Bay; all of which have entered into Natural England’s HLS scheme where farmers can receive up to £335/hectare annually.

At Sand Villas Farm, the land owner Mr Jones, has chosen the ‘target species’ option; specifically designed for wintering wildfowl and waders. This involves sowing spring cereals which provide important winter stubble for overwintering geese and the farm sits adjacent to Braids Farm, also in HLS. In total, the whole HLS agreement comes to 36 hectares. In addition to this, 60 hectares of SSSI saltmarsh have been brought into HLS management nearby. New Hall Farm has entered into the ‘wet grassland’ option and they have twenty hectares of this important breeding wader habitat. Also at this site, the land owner has sown a wild bird seed mix – important for small birds like linnet and goldfinch and he has also created a small area of fen habitat; invaluable habitat to allow Bittern to move around the area more freely. Pyes Bridge Farm has 14 hectares of wet

grassland for breeding waders and spring cereal options benefitting a variety of farmland birds.

As well as working with the farming communities, we are also looking for opportunities to work with other community groups, local businesses and the tourism sectors and are looking to strengthen the role of wetlands together with limestone grasslands and woodlands and how these important habitats fit into the local economy.

The Wetland Vision project comes to an end in March 2011 having achieved a great deal of nature conservation enhancement within the project time. The MBWN will continue, and build on the achievements of this project, by working both with the farming community and also seeking opportunities to work alongside local businesses and other community groups within the project area.



A Bittern – David Morris

BOWLAND'S BLANKET BOG

Graham Walsh, HLS Advisor, Natural England.

Using grants from Defra's Higher Level Stewardship Scheme (HLS), administered by Natural England, two large areas of bare peat created by historic fires in the Bowland Fells SSSI, have been fenced to exclude sheep. The eroding peat within these areas has been treated to ensure a rapid cover of vegetation aimed at stabilising the loose peaty surface. Steep peat "haggs" have been reprofiled and covered in a mat of geotextile to limit the impact of rainfall and surface water flow. Grass seed has been added along with a little fertiliser to stimulate growth. Alongside this, areas of heather have been cut from nearby moorland and the chopped cuttings known as "brash" were transported by helicopter to be spread by a team of hardy workers from DMS, often working long days in temperatures below zero.

Over 100ha of blanket bog habitat in some of the highest and most remote areas of Lancashire are being restored thanks to the work of Natural England, landowners United Utilities (UU), local farmers and contractors Dinsdale Moorland Services (DMS).

The first area to be treated, in early 2009 at Langden Head under the UU Sustainable Catchment Management Programme (SCaMP), is already showing excellent results. A 40ha area once scarred by more than 20% bare peat is now almost entirely vegetated and young heather has taken root. Spurred on by this success, a second area of over 70ha at Wolfhole Crag, has recently been given the same treatment.

This work is the first step in the longer term project under the 10-year HLS

agreements to begin recovery of blanket bog vegetation in these degraded areas of the Bowland Fells SSSI while also generating a number of related benefits. The wild moorland landscape of the Forest of Bowland Area of Outstanding Natural Beauty (AONB) will be secured for many decades to come. United Utilities, who own the land primarily as catchment, will benefit from clearer raw water which has fewer suspended peat solids. And instead of losing carbon in eroding and oxidising peat, the land should become a net sink as carbon becomes locked in beneath the vegetation. The success of the work will be monitored over the coming years by Natural England and by United Utilities and can be used as a template for other areas where bare peat erosion has become a problem.



Upland delivery of materials for restoration – Elliot Lorrimer



THE RIBBLE RIBBLE CATCHMENT

Jack Spees, Director, Ribble Catchment Conservation Trust

The Ribble Catchment Conservation Trust carry out important conservation and restoration works on rivers and tributaries within Lancashire. The scope of their efforts ranges from simple Himalayan Balsam control to more advanced projects such as weir removals and fish pass installations, as well as routine catchment surveys and monitoring with the help of volunteers.

Working to achieve the standards outlined in the European Union's [Water Framework Directive](#), the Trust's aim is to improve the ecological status of each river and stream within the Ribble catchment. This often involves fencing banks to prevent stock access, planting trees to provide habitat for birds and mammals, creating nursery channels to encourage fish spawning and removing in-river barriers to fish migration.

In order to realise their goals the Trust has made a number of firm partnerships with

the likes of the Forestry Commission, the Woodland Trust, the Wild Trout Trust, the Forest of Bowland AONB, the Lancashire Environment Fund, the Lancashire and Blackpool Tourist Board, United Utilities and the Environment Agency, as well as local councils and several angling clubs.

Their greatest achievement to date was the work that was carried out during 2010 on the Calder system.

A total of four weir modifications were undertaken, as well as the Trust's very first installation of a pre-fabricated fish pass at Barrowford.

As a result of this hard work, migratory salmon and trout are now able to gain access to their preferred spawning grounds in the upper tributaries of the River Calder for the first time in decades. The increase in fish populations in the higher reaches of the river will have a positive knock-on effect for other riverine species such as otters, dippers and kingfishers, and will therefore create a much more varied and sustainable eco-system that can be enjoyed by all.



Supported by Lancashire County Council



Summerseat Nature Reserve – Lancashire Wildlife Trust



DELIVERING FOR BIODIVERSITY AND COMMUNITIES

Biodiversity is part of where we live, work and play, so that it is indivisible from our society. It plays a huge part in our communities, interpretation of the environment around us, and in our health and well-being ^{24, 25}. Communities also have a large role to play in biodiversity conservation, whether through volunteering, protecting local values and interests in 'friends-of' groups, or being the users and decision makers in their local area. More directly community and volunteer action can be key to delivering [local BAP](#) action and help maintain the links between urban and rural areas ²⁶, especially as we know how important green areas are for people.

The natural spaces in and around where we live have a major contribution to make to the well-being and development of young people ²⁷ and provide natural solutions to many modern diseases (obesity; heart disease and strokes; depression and mental illness) ²⁸. With the importance of local wildlife and the spaces around us, there is also the important ingredient of people and the organisations which do the work. Volunteering and the people who take part are a massive asset, and often form a key part of an organisation's strategy as well as delivery for both a person's development and conservation goals ³⁰. These goals can have much wider benefits to communities, such as that demonstrated by BTCV's Green Gym with savings on health treatment ³¹. Local authorities are key to embedding biodiversity across different sectors locally ³², and leaders on the benefits of the local environment to their communities; galvanising action; and ensuring service and enforcement delivery ³⁰. It's also important to highlight the work of the charities and local groups, who can be of huge benefit in terms of expertise, local motivation and co-ordination, and long term sustainability of work or sites. Recently Lancashire Wildlife Trust reported that there is a key need for quality recording on Local Wildlife Sites, which would need resource and co-ordination to maintain and develop the huge potential for the way local groups and recorders support conservation and wildlife ³³.

It's worth remembering that it is the communities who visit our wildlife sites, both urban and rural, recently estimated at nearly 3 billion annual visits contributing £20.4 billion in spend ³⁴; helping reveal the cultural impact our countryside and wildlife has on our population and economy. While this does sometime provide a conundrum for conservation around level of access, it is a key part of the evolution of the conservation movement in England, with development of the [National Parks](#), [National Nature Reserves](#) and [Natura 2000](#) site network. Considerable work has been completed to both provide access and remove any conflicts with conservation ³⁵; reconciling a huge part of our national identity and heritage for people to enjoy into the future.

URBAN WORKING AND COMMUNITY ACTION

URBAN MEADOWS

*Ian Wright, PLiP Officer, Lancashire
Wildlife Trust*

For the past couple of years, Lancashire Wildlife Trust's Productive Landscapes in Preston (PLiP) team have been working with residents associations, youth groups, schools and others on a range of small sites across the city to revitalize under-used and unloved communal green spaces. The work supported by Preston City Council, Neighbourhood Management Partnerships is largely funded by the Big Lottery's Reaching Communities fund.

Early in 2010, inspired by the success of initiatives in Sheffield and east London and the work of Landlife closer to home, the notion of creating small species-rich meadows on some of these green spaces was hatched. Could the proven techniques used to create wildflower meadows on a landscape scale be replicated on garden sized plots using whatever the local residents had in their tool sheds?

Using everyday hand tools- though limiting the amount of ground that can be covered in a day- means that just about anyone can join in and take ownership of their meadow.

The experiment was timely. Most of the small sites we manage with local residents enter their communal gardens into the annual "It's Your Neighbourhood" awards – an offshoot of Britain in Bloom aimed specifically at small community groups. In 2010 the marking criteria for awards changed with greater emphasis placed on ecology, sustainability and community

buy-in. In previous years these attributes were considered desirable add-ons, rather than as integral to a project.

The first group to take the plunge were the parishioners of St. Matthew's, a Victorian church in the heart Preston. Twelve weeks later our fears came to nothing as the first of the cornfield annuals began their summer blooming – blooming that lasted until Halloween!

In response to the increasingly frequent requests about the meadows, we put together a training event. The course "A



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An urban street corner sown with flowers in Ormskirk – Tim Graham

Beginner’s Guide to Urban Meadows’ was first presented at St. Matt’s (where else?) in November 2010. Park Rangers, enthusiastic gardeners, conservation volunteers, amenity greenspace managers.

One of the first results can be seen at Moor Nook, one of Preston’s largest social housing estates, where plans are advancing to replace amenity grass mowing and verge herbicide spraying with nectar-rich cornfield and pictorial mixes, with some areas to be sown with hay meadow mixes.

Experience tells us that the more community buy-in we secure on a site, the less chance there is of the work succumbing to vandalism and theft. Also, covering a small amount of ground isn’t a problem when there’s only a small amount in the first place.

There’s a quiet, small scale revolution underway in back gardens and amenity green spaces this winter. Little by little unused and patchy ryegrass lawns are

being replaced with the promise of beauty and biodiversity next summer

LANCASHIRE SAND DUNE PROJECT

Annie Ancell, Sand Dune Officer, Lancashire wildlife Trust.

Identified as a priority by Lancashire Biodiversity Partnership, a management plan for the largest section of Lancashire’s dunes was developed, to enable its sustainable existence into the future. The SITA enriching nature funded project was created to do just that, so that our dunes will continue to be part of the network of internationally important coastal habitats in the North West, as well as work for local people.

The Lancashire Wildlife Trust has teamed up with Fylde Borough Council and other local authorities to ensure the preservation and enhancement of the natural dunes habitats across Lancashire, for people and wildlife.



Enriching nature, Enhancing communities



Lancashire, Manchester & N Merseyside



FYLDE BOROUGH COUNCIL



A View of Blackpool from Lytham St Anne’s Sand Dunes – Tim graham

The Lancashire Sand Dunes are home to a wealth of biodiversity with over 300 different plant species recorded, including a large number of species which are incapable of surviving in any other habitat, and many of these are of national or international significance.

Threats include further development pressure, foreshore erosion, trampling pressure, lowering of water tables and the spread of non-native plants.

One of the main aims of the dunes project is to increase the width of the system. This will not only create new dunes and increase the habitat but will also improve the dunes as a sea defense the coastal communities behind.

The sand dunes are also an important landscape feature for local residents and visitors to the coast, providing a beautiful environment for walking and are enjoyed by thousands of people each year.

The Sand Dunes Project works with the local community to inspire and educate people of the importance of a healthy dune ecosystem.

The project has set-up a voluntary 'Coastal Care Group' which meets each week to remove the litter from a section of coast allowing the natural tidal debris to remain and for specialist dune plants to establish in this area.

WADERS IN THE FOREST OF BOWLAND AONB

Martin Charlesworth, Forest of Bowland AONB

The Forest of Bowland Area of Outstanding Natural Beauty (AONB) works with volunteers on a regular basis carrying out habitat and landscape

management across the AONB. At Chipping Moss, the RSPB's Bowland Wader Project run by Gavin Thomas is working with the owner, tenant farmer, partner organisations and members from the local community to improve the habitat for breeding waders. Chipping Moss is one of the prime sites for breeding waders in Bowland. It's an area that originally would have been naturally wet and rushy as the name suggests; and ideal for ground nesting birds. But too much rush is as big a problem for waders and intervention is needed when things get out of balance.

The overall aims of the Bowland Wader Project are to reduce and reverse the decline in breeding lapwings, curlews, redshanks and snipe by focussing on key areas where good populations of breeding waders remain and then helping these core populations to flourish and spread into surrounding areas. This can be done by ensuring that suitable habitats for breeding waders are maintained and around these hotspots, restored, on a landscape scale.

Along with most land in Bowland, Chipping Moss has been agriculturally improved by drainage. There is evidence of field drainage in Bowland dating back



Rush Cutting on Chipping Moss – Tarja Wilson

to Roman times with substantial culverts on the Salter Fell track. There are stone soughs, sod drains, clay tiles and porous pipes in almost every field. Drainage helps improve pasture allowing grasses to flourish and deterring rush. This 'improvement' however is bad news for ground nesting birds whose offspring need the protective cover that a scattering of rush provides and the plentiful invertebrate food that flourishes in the wet conditions.

A tractor and cutter bar can cut rush where the land is reasonably level and dry but it is difficult to get close to the edge of scrapes and ditches, particularly valuable feeding areas for wader chicks. After speaking to Gavin about the possibility of getting volunteers involved with selective rush cutting on Chipping Moss, The Forest of Bowland, Area of Outstanding Natural Beauty advertised for volunteers and got a diverse group of people - RSPB volunteers, Wildlife Trust volunteers and people taking a day out from other employment to help control rushes using brush cutters and sickles in late November. Despite the weather, and difficult conditions underfoot, people enjoyed the task and even came back for more on a snowy day. The protective gear and flasks of soup certainly helped! Everyone learned more about waders, and the following spring, most of the Lapwings on Chipping Moss nested in the very area that had been cut: **Volunteering with a true purpose and a real result!**

LOCAL GROUPS AND DELIVERY

CUERDEN WILDLIFE EXPLORERS

David Beattie, Cuerden Wildlife Explorers Leader.

Cuerden Wildlife Explorers is a group for 8 to 12-year-olds. It is part of the Wildlife Watch, the junior section of the Wildlife Trust, and the RSPB Wildlife Explorers, the junior section of the Royal Society for the Protection of Birds.

To celebrate the year of Biodiversity we started early by planting bluebell and snowdrop bulbs in November 2009 in the woodland on Cuerden Valley Park. In March 2010 we then helped to plant a variety of wild-flower plugs including red clover, yarrow, ragged robin, cowslip and knapweed. Finally in September we buried some buckets containing a soil/woodchip mix to see if either there were stag beetles this far north or if they are to encourage them to survive the winter. We plan to dig these up in March 2012 allowing 2 winters to pass.

This engagement with children allows them to learn about the natural world and engage with straightforward steps to help benefit wildlife. Hopefully in future years they could be contributing records, helping restore their environment or just simply have a little more respect for the wealth of wildlife we have around us.

LANCASHIRE AND GREATER MANCHESTER MAMMAL GROUP

Tim Graham, Chair, L&GM Mammal Group.

While there are a number of individual groups who cover some aspects of mammal recording, there has been no dedicated group to cover and encourage work on all mammals in Lancashire.



greater manchester biodiversity project





Together with Greater Manchester Biodiversity Project, Lancashire Biodiversity Partnership has worked to fill in the gap. Thanks to the support of Lancashire Wildlife Trust, and funding from Lancashire County Council and West Pennine Moors Partnership, it has been possible to get the ball rolling!

Formed in 2010, we now have a committee, constitution and ever growing membership. Planned launches for early April should bring renewed interest thanks to organized training and events to allow people to get involved with mammal recording anywhere in the area, on their doorstep, or even just learn a little more about the wildlife living around them.

Our main aims are: To bring together people with a shared interest in mammals; To raise awareness of mammals and the threats they face, through talks, events and publicity; To survey and monitor local mammals to establish distributions and abundance and identify any declines; To provide advice and

practical help with conserving threatened species in the area; To organise training for members to gain essential field skills in mammal identification and survey methods.

We intend to do this through working with existing groups and expertise such as the local Bat Groups, Lancashire Badger group, and organisations such as local chapters for the Marine Conservation Society, and our adjoining mammal groups in Merseyside and Cheshire. We are also seeking funding to support our work to develop the mammal group in particular so that we can encourage the development of skills which will enable us to systematically build up the information needed on mammal species in the region, so that conservation management can be informed accurately when needed.

LANCASHIRE MOTH GROUP

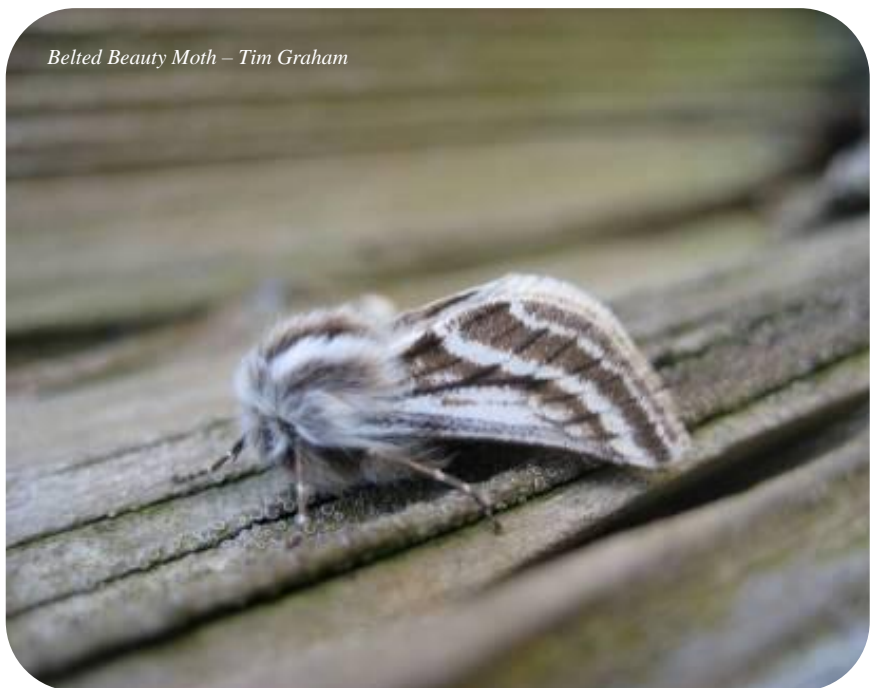
Steve Palmer, Lancashire Moth

Group.

The work of the highly active local group and its volunteer members has provided invaluable information on BAP priority species in Lancashire for years. This kind of information and activity is key to informing conservation management.

Some of the more disappointing news to arise from the survey results in 2010 has been the failure to locate the Forester moth in the damp, flower rich-rich meadows of north Lancashire, and the low maximum count of the White-spotted Sable moth, which were well down on previous years.

2009 did herald the discovery of the Netted Carpet moth, making it a new UK BAP Priority Species in Lancashire. The larval survey found a maximum count of 166 in 2010! And the daytime survey for adult Belted Beauty recorded the highest number ever at 1691 moths!



LEF DELIVERING LOCALLY TO LANCASHIRE

From the inception of the Fund in 1998, [LEF](#) has had a policy of supporting projects that enhance or improve the natural biodiversity in Lancashire.

One of the largest projects supported was the initial funding for the preparation of the Lancashire Biodiversity Action Plan (LBAP) and many of the subsequent schemes LEF has funded have arisen from actions highlighted by the LBAP.

Warton Crag and the High Brown Fritillary, one of the UK's endangered butterflies has a strong hold on Warton Crag in North Lancashire. However, numbers are in decline because of the encroaching bracken on the grassland areas of the reserve. Bracken litter is ideal for overwintering caterpillars and lava but too much bracken shades out the Dog Violets that are the caterpillars main food plant. The 3 year project is for the controlled management of the bracken to ensure the best

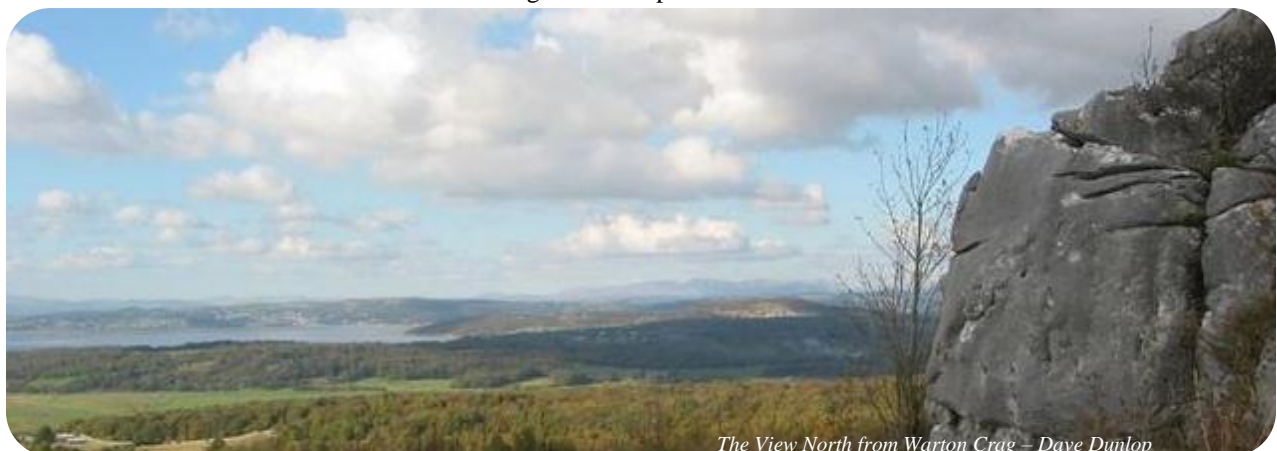
balance of grassland and bracken stands to encourage the spread of the Dog Violets. Monitoring of the butterfly populations is undertaken to determine if the habitat management has been successful. 2 years into the project Fritillary numbers have increased as have other species such as Duke of Burgundy and Pearl Bordered Fritillary that have benefited from the bracken management.

Grindleton Woodlands on your Doorstep. This scheme was to create 5 ha of new woodland as part of Woodland Trust Millennium Woods project. The woodland was planted with a mix of trees oak, ash, birch, rowan plus a shrubby understorey typically found in the Ribble valley. All the trees were sourced from seeds of local origin. The woodland is maturing well with selective management to open up woodland rides and glades. A 4 ha extension was recently added.

Moor Piece Bog Restoration at Bashall Eaves. The 16 ha site is a wet birch/oak woodland with areas of coniferous planting. The aim of the project was to increase the water levels in the wet woodland to encourage the spread of the

sphagnum mosses on the site and to stop the underlying peat drying out. Numerous dams were constructed across the existing drainage channels to retain the water on the site. Much of this work being done by volunteer work parties. The water levels are continually being monitored and have shown an increase across the whole site. Early surveys have shown that mosses are starting to recolonise some of the pools of water created due to raised water levels.

Chapel Lane Meadow in Parbold. While strictly not a biodiversity improvement scheme LEF supported the enhanced access to this County Biological heritage site so that it could be enjoyed by all. The site is notable for its display of Orchids and Yellow Rattle. To help the public understand the importance of the site an interpretation Board has been installed. During the access improvement works great care was taken not to damage sensitive areas and part of the grant agreement conditioned the annual mowing of the site to ensure proper management of the meadow into the future.



The View North from Warton Crag – Dave Dunlop

LANCASHIRE BIODIVERSITY PARTNERSHIP

This section provides the further information on the partnership, why it exists, how it works, and how it plans to continue. It should give the details needed to anyone who wished to know more, or who plans to get more involved in biodiversity conservation.

BACKGROUND

WHY BOTHER WITH BIODIVERSITY

Biodiversity is the wealth of life around us, from genes and species, to the ecosystems around us. This makes it our life support, and indivisible from other elements which may be more obvious or straight forward to explain as valued by society; economics and culture. It too cannot be underestimated part of our identity as people and communities; making up the places we live and work, and ultimately providing the things that make up society.

Biodiversity has an intrinsic value to many people and cultures. Perhaps we should be working to protect and keep all those species and ecosystems which have evolved to make the landscapes we see and experience as a matter of stewardship and ethics? This motivates many people, but ultimately not all, and in many respects we need to promote the wonderful benefits biodiversity provides to society.

The way we value this resource has begun to be termed ecosystem services, and seeks to describe and qualify what nature gives to us. This can be the productive elements from crops, timber and fish, from the processes like air quality and clean water, cultural from learning and local identity, or support other aspects in ways like soil fertility. There is major work going on internationally to increase the recognition of these values and allow decision making to take account ³⁶, and in the UK the government has started incorporating this into its ‘[Ecosystem Approach](#)’ ³⁷. So what facts and figures are there applicable to Lancashire?

Quality of life – 2.1% [GDP](#) and £3 billion for North West ³⁸, and integral to the quality of life of 7 million people ¹⁷. Recently Natural Economy North West ³⁹ put the value of [green infrastructure](#) as £2.6 billion GVA, with over 100,000 jobs, and that’s all before you realize the magnitude of biodiversity being the support underpinning the area we live and do business in, without mentioning the wider benefits to society from health and well-being mentioned earlier ^{24, 25}.

Some values from [DEFRA](#)s environmental narrative ¹⁰ to help put this in perspective:

The value to flood risk management of wetlands has been estimated at £1,279/ha/yr

pollination supports food production in the UK to the value of £1bn per year.

It is estimated that peat soils in England store 296 million tonnes of carbon, but cultivation and drainage of lowland peat soils means that they are losing between 2.8 and 5.8 million tonnes of CO₂ per year. The annual value of this loss is estimated at between £74 million and £150 million.

Soil erosion in England alone is estimated to cost agriculture £45m per year

In 2002, water customers paid over £90m to remove nitrates and pesticides from drinking water sources

Increasing physical activity by having green spaces to walk or exercise in could save the NHS around £2.1bn every year.

ONE FIFTH of the global species are classified as [Threatened](#) ¹³, and on average 52 species of bird, mammals, and amphibians move one category closer to [extinction](#) each year ¹³.

In England, a comprehensive report by Natural England ⁴⁰ reported that 492 species have become extinct, with one species of plant being lost every two years at a county level, and on average 26% of species are deleted or on the BAP list of priority species. Of some well studies groups extinction that represents:

24% Butterflies

22% Amphibians

15% Dolphins and whales

12% Terrestrial mammals

The action priorities for correcting this, only serve to support the need for work and development of Lancashire's BAP and Biodiversity Partnership.

RIO EARTH SUMMIT

The Earth Summit in 1992 came out of an international push towards realizing the need for global action to move towards sustainable development, which is perhaps best recognised through the publication of Our Common Future ⁴¹. Global biodiversity is an issue at the heart of the environment and development debate ⁴³, and the Convention on Biological Diversity presented a framework to begin the process of integrating wildlife and ecosystems into society.

The three main components of the convention are:

1. conservation of biological diversity (or biodiversity);
2. sustainable use of its components; and
3. fair and equitable sharing of benefits arising from genetic resources.

In other words, its objective is to develop national strategies for the conservation and sustainable use of biological diversity. It is often seen as the key document regarding sustainable development.

It was here that an international focus on sustainable development really began, and placed biodiversity at its heart. It set the method to apply a form of risk assessment to priority action together with the mantra for action 'think global, act local'. While the first targets were based around setting up the process to begin action, progressive targets were made to 'halt the loss of biodiversity' by 2010, and now, having missed that we have been presented with the new [Aichi Targets](#) from Nagoya, Japan in October 2010 ⁴⁴.

BIODIVERSITY ACTION PLANS

The method put forward at Rio to tackle the loss of biodiversity was action planning. In the UK this began with the published plan in 1994, and set out the priority action needed for species and habitats; a series of detailed recommendations for action at the nation-wide level that would address the most pressing conservation issues. This linked threat to species and habitats, so that it assesses the most threatened, and created Biodiversity Action Plans to direct conservation though describing the status of each habitat and species, outlining the threats they face, setting targets and objectives for their management, and propose actions necessary to achieve recovery.

How is the biodiversity approach different?

The biodiversity planning approach to wildlife conservation is characterised by the following special elements:

Identifying priorities. We must ensure that our effort is directed to where it is needed most and to address the most pressing issues first. This means targeting active conservation work at certain species and habitats first. This does not mean that others are less important or do not warrant our attention, simply that they are in less urgent need of help.

Setting measurable targets. We often share a common vision of how we would like to see our environment in future years. However, we need to define measurable targets that we can work towards and against which we can measure our progress. It should be understood that aiming to achieve ‘high biodiversity’ is not necessarily appropriate for all environments; some habitats are naturally species-poor and in such cases we would therefore wish to maintain the appropriate level of ‘biodiversity’.

Monitoring progress. We will need to check how well we have done in reaching our targets so that we can continue, if successful, or adjust our approach if not. We in Cumbria will report our progress both locally and nationally to provide a wider picture of the UK’s biodiversity. This will help to track how well local, national and international policies are working.

Widening the partnership. One task is to make best use of our limited resources, by better co-ordinating the roles of conservation organisations, local authorities, government agencies and the individual. Another is to involve sectors, such as businesses, which up to now have had a limited role in conservation. There is great potential for everyone.

LBAP HISTORY IN LANCASHIRE

Action in Lancashire can be seen to have started even before the Rio Earth Summit. The Lancashire Environmental Action Programme (LEAP) was part of a process which began in 1989 and has many similarities to BAP ⁴⁵. It had the aim ‘to stimulate and co-ordinate action to sustain and enhance the environmental resources of Lancashire’. It was non-statutory, based on a consensus for action through a co-operative partnership for action, and had a number of themes which included similar priorities for action as the BAP would years later.

The partnership began in 1998, when the Lancashire Biodiversity Action Plan started to be developed. This was published in 2001 and has been consistently worked one, with a current review updating the documents for release in 2011. With a current membership of 79 partners, Lancashire Biodiversity Partnership continues to deliver local action as part of what was a structure from the UK BAP, which worked at national, regional and local level. Close working relations exist with Yorkshire partnerships, and we have a long history of working beyond administrative borders with the 4 other LBAPs in the north west: Cheshire, Cumbria, Greater Manchester, and North Merseyside.

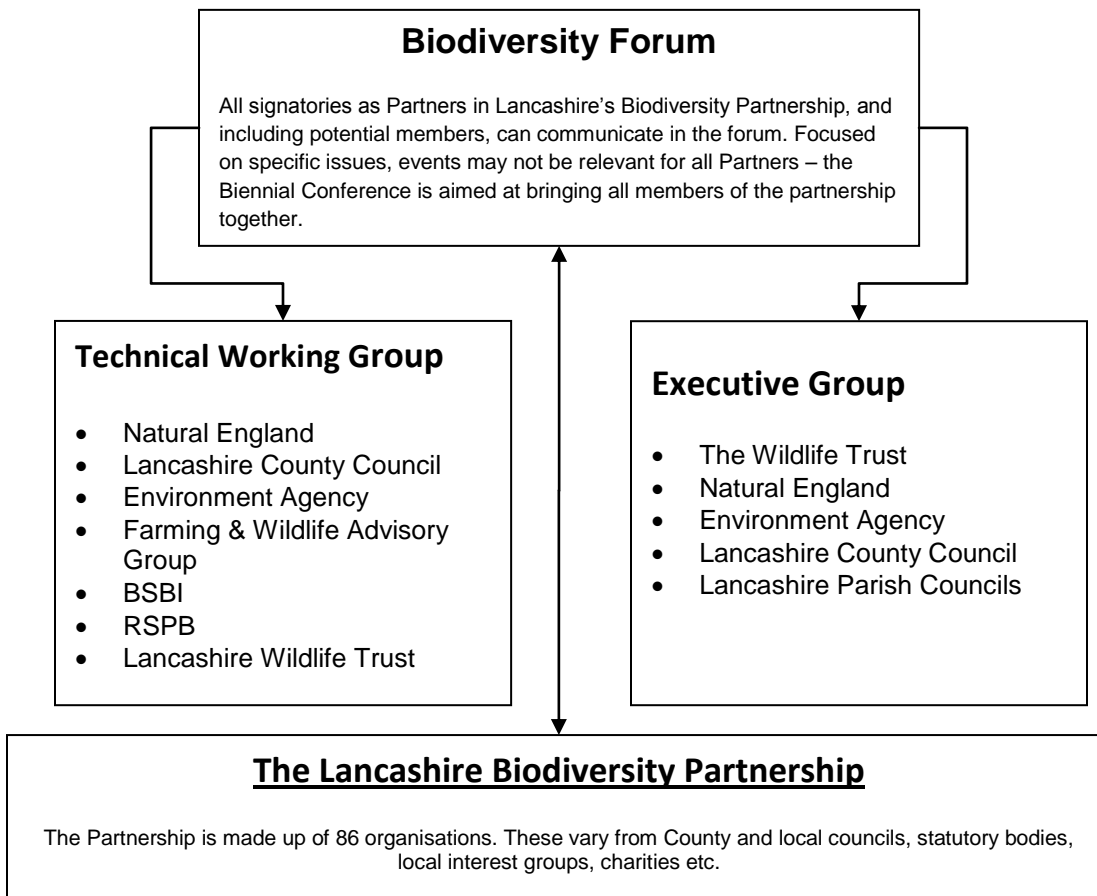
STRUCTURE OF THE PARTNERSHIP

[Biodiversity Forums](#) and biannual conferences engage the general membership of the partnership, but specific groups support the function and working of the partnership. Importantly the partnership's membership and structure should be inclusive and representative while providing the skill and expertise for management and advice ³.

The [Executive Group](#) provides a strategic level of management to the partnership, as well as developing and steering the business plan. It is this business plan which directs the priorities of action for the partnership as well as the Local Biodiversity Manager, who provides a co-ordination role and also a developmental role for project work which delivers BAP outcomes in Lancashire.

The [Technical Working Group](#) provides the expertise and advice to the partnership for developing and monitoring the BAP, providing input to consultations and project development, and monitoring the actions of [Special Interest Groups](#).

Special Interest Groups report to the Technical Working Group, and provide a greater level of detailed expertise around a specific conservation issue or topic. Currently the partnership has two groups: Endangered Plants Group monitors and leads on plant conservation; Urban Working Group leads on reviewing the Urban BAP together with its delivery and monitoring.



FUNDING AND THE NATURAL ENVIRONMENT SERVICE

Until April 2011, the Partnership and the LBM coordinator post is part funded through Memorandum of Agreement by Natural England and Environment Agency. This is then match funded, currently through [Lancashire's Natural Environment Service](#) (LNES).

LNES is a consortium of services which are provided to Local Authorities in return for funding. The principal services are:

1. [Lancashire Environment Record Network](#) (Local Record Centre)
2. [Biological Heritage Site](#) Survey and Review (Local Wildlife Site system at a county level)
3. [Lancashire Biodiversity Partnership](#) (Lancashire's BAP)
4. [Lancashire's Geodiversity Sites](#) (GeoLancashire and Site of Geological Heritage)

Together this service supports the natural heritage of Lancashire. It provides the information needed to make informed decisions, develops priority projects to deliver conservation, and maintains the systems needed to make this sustainable and adaptable into the future.

This local level of conservation of our natural heritage is of considerable significance, has been placed as part of the key developments for the [Natural Environment White Paper](#) and future strategies at the national level ⁸ and is a key resource to be protected and enhanced in line with the [NERC duty](#) which places an obligation of duty to conserve biodiversity on [statutory bodies](#) from Parish Councils and Local Authorities, to Government Agencies.



Map: Local Authorities and Unitary Authorities in Lancashire.

JOINING AND MEMBERS

Membership of the Partnership is open to all organisations who work in Lancashire and who support the work of the Partnership, and are working in some way towards the conservation of biodiversity. This need not be the main aim of the organizations, but something which fits into their work, and they wish to contribute to the bigger picture and partnership to deliver wider benefits. In particular, organizations have signed the '[Biodiversity Declaration](#)' whether they are local community groups, NGOs or local authorities. The current membership list can be seen below.

MEMBERS LIST

1. Arnside and Silverdale AONB Forum
2. Amphibian and Reptile Group of South Lancashire
3. Blackburn and District Bird Watching Club
4. British Association for Shooting and Conservation
5. BTCV (Preston)
6. Burnley Borough Council
7. Burnley Civic Society
8. Burnley Wildlife Conservation Forum
9. Central Lancashire Friends of the Earth
10. Chorley Borough Council
11. CPRE (Lancashire Branch)
12. Cronshaw Fold Farm
13. Darwen River Valley Initiative
14. DEFRA
15. Downham Hall Estate
16. District Land Registry for Lancashire
17. East Lancashire Ornithologists' Club
18. Ellel Parish Council
19. Environment Agency
20. Farming and Wildlife Advisory Group
21. The Forest of Bowland AONB
22. Forestry Commission
23. Friends of Ball Grove Park
24. Fylde Bird Club
25. Fylde Borough Council
26. Fylde Naturalists' Society
27. Fylde Ringing Group
28. Gawthorpe Environmental Movement
29. Going for Green
30. Graham Engineering
31. Groundwork
32. International Tree Foundation
33. Keer Falls Farm
34. Lancashire Badger Group
35. Lancashire and Cheshire Fauna Society
36. Lancashire Constabulary
37. Lancashire County Museums Service
38. Lancashire County Council
39. Lancaster City Council
40. Lancaster and District Birdwatching Society
41. Liverpool John Moores University
42. Lune Rivers Trust (Previously Lune Habitat Group)
43. Mersey Basin Trust
44. Moor Lane Urban Islands Project
45. Morecambe Bay Partnership
46. Myerscough College
47. The National Trust
48. Natural England
49. Newburgh Parish Council
50. North West Ecological Trust
51. NPI Red Alert NW
52. Ormskirk and District Friends of the Earth
53. Parbold Parish Council
54. Parbold and District Tree Wardens Group
55. Pendle Borough Council
56. Pendle Environmental Network
57. Pendleside Books
58. Penwortham Nature Conservation Group
59. Pond Conservation
60. Preston City Council
61. Preston Friends of the Earth
62. Preston Green Forum
63. Prospects Foundation
64. Ribble Catchment Conservation Trust
65. Ribble River Valley Initiative
66. Ribble Valley Borough Council
67. River Enhancement East Lancashire
68. Royal Society for the Protection of Birds
69. Save the Ribble Campaign
70. South Lancashire Bat Group
71. South Ribble Borough Council
72. United Utilities
73. Warton Village Society
74. West Lancashire District Council
75. West Lancashire Environmental Network
76. Wildfowl and Wetlands Trust – Martin Mere
77. Wildlife Trust for Lancashire, Manchester & north Merseyside
78. World Wide Fund for Nature (WWF UK)
79. Wyre Borough Council

BIODIVERSITY DECLARATION

The following is the text is a declaration signed by partner organisations indicating their support for the broad aims of the Lancashire Biodiversity Partnership, and which can be signed and sent to the address at www.lbap.org.uk:

Lancashire contains some of the nation's finest landscapes and outstanding habitats for wildlife, particularly within the county's extensive upland areas, estuaries and wetlands. Moreover, places of value for wildlife, and for people's enjoyment of nature, are found widely throughout the urban and rural areas of our county. However, in spite of efforts by government bodies, local authorities, non-governmental organisations and individuals, these and other habitats are under threat from loss, fragmentation and deterioration of environmental quality. The same is true for many wild plants and animals which depend on these habitats.

This process of decline can be reversed only by co-ordinated and collaborative efforts, based on a common understanding of the problems, needs and priorities at the local, regional, national and international scales.

Only by working together can local communities, businesses, landowners, farmers, central and local government, and the voluntary sector achieve this change of direction. National guidance recommends the use of local Biodiversity Action Plans, and Biodiversity Partnerships to direct action, as a mechanism whereby this might be achieved. It is therefore proposed that the Biodiversity Action Plan for Lancashire be monitored and updated through Lancashire Biodiversity Partnership, to help direct priority conservation action at the local level.

Signed: _____

Print Name: _____

Role: _____

Organisation: _____

Date: _____

GLOSSARY

AICHI TARGETS (OR INTERNATIONAL BIODIVERSITY TARGETS)

International Biodiversity Targets are those agreed as part of the [CBD](#), and link to conferences in 1992 ([Rio Earth Summit](#)) and Johannesburg in 2002. They are also decided as EU level targets, and were more stringent, decided to HALT THE LOSS OF BIODIVERSITY BY 2010, rather than just reduce the rate of biodiversity loss. ([More Info](#))

More recently the CBD, at Nagoya in Japan, in 2010 decided to adopt the [Aichi Targets](#) which will present new international targets for 2020, and which the UK Government will have to set out how it will plan and implement action to meet them.

BIODIVERSITY

Biodiversity, or biological diversity, is the variety of life on earth. That is everything from the gene's which make up an individual, through populations and communities of species, to the ecosystems which they are ultimately a part of and indivisibly supported by. ([More Info](#)).

BIODIVERSITY ACTION PLAN AND BAP

Biodiversity Action Plans (BAPs) are the documents and methodology used to label threats and priorities for conservation. They have been developed at a UK level (UK BAP), and at a county level ([LBAP](#)) to represent local needs. There are also examples of specific organisations developing their own BAPs, such as United Utilities and HM Prison Service. ([More Info](#)).

BIODIVERSITY DECLARATION

The [text](#) signed by partners in Lancashire's Biodiversity Partnership, and which states support for the broad aims of the Partnership.

BIODIVERSITY FORUMS

Events organised through the Biodiversity Partnership for members, on specific issues or topics. Past events have included Urban Green Space and Biodiversity, and Upland Peat. There is also a biannual conference for the partnership, last held in May 2010 on the Future of Lancashire's Wildlife at UCLAN in Preston. This aims to

bring together all partners around a significant number of issues.

BIOLOGICAL HERITAGE SITES

Biological Heritage Sites, or BHS, are the county level Local Wildlife Sites in Lancashire. They are non-statutory (not part of English Law, therefore not legally protected) sites defined for their biological interest. Specific guidelines for site selection have been developed and are reviewed as part of the BHS Partnership, which includes Lancashire County Council, Lancashire Wildlife Trust and Natural England. ([More Info](#))

CONVENTION ON BIOLOGICAL DIVERSITY (OR CBD)

Signed by 150 government leaders at the 1992 Rio Earth Summit, the [Convention on Biological Diversity](#) is dedicated to promoting sustainable development. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the Convention recognizes that biological diversity is about more than plants, animals and micro organisms and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live.

DEFRA

UK Government Department for Environment, Farming and Rural Affairs. The department which oversees biodiversity in the UK and is important for development of policy and regulation ([More Info](#)).

ECOSYSTEM

Is the unit which contains all organisms, together with the physical environment they interact with, covering a specific area. This is a complex set of interactions and populations, often linked to specific kinds of environment such as aquatic ecosystems, upland ecosystems or woodland ecosystems.

ECOSYSTEM APPROACH

The UK Government's approach to *'help us to protect the natural systems that maintain our landscapes and wildlife and support our economic, social and personal*

well-being'. It aims to take a larger scale approach to biodiversity and accurately value the benefits we receive – importantly reflected ultimately in the policy and decisions made nationally. ([More Info](#)).

ECOSYSTEM SERVICES

This is the valuing of what our natural heritage provides for society. There are specific categories for the services being measured to accurately understand the benefits we gain: Provisioning, Regulating, Cultural, and Supporting services. It is hoped that this can lead to more integration of our natural environment into policy and economics as its important and key role is more accurately understood by wider society. ([More Info](#)).

ENDANGERED AND THREATENED SPECIES

This is the classification of species in terms of evaluating their risk of extinction. It is formulated into a list by [IUCN](#) (International Union for Conservation of Nature), and termed the Red List. The order of classifications from highest risk is: Extinct; Extinct in the Wild; Critically Endangered; Endangered; Vulnerable; Near Threatened; Least Concern. Threatened species are those classified as being Vulnerable, Endangered or Critically Endangered.

ENGLAND BIODIVERSITY FRAMEWORK (OR SECURING BIODIVERSITY)

The England Biodiversity Framework is the method adopted by England Biodiversity Group to implement the national strategy on the ground. It ultimately makes sure England completed its commitment to the [International Biodiversity Targets](#) of the [CBD](#). The current framework is [Securing Biodiversity](#), and describes a way of better integrating biodiversity and working at a larger scale.

EXECUTIVE GROUP

The [Group](#) within the structure of the Biodiversity Partnership, which provides management guidance and strategic steering to the work of the Partnership.

GROSS DOMESTIC PRODUCT (GDP)

Refers to the market value of all goods and services in country over a specific time, and often linked to quality of life.

GREEN INFRASTRUCTURE

Green Infrastructure (GI) is a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities. Green Infrastructure includes parks, open spaces, playing fields, woodlands, allotments and private gardens. ([More Info](#)).

LANCASHIRE BIODIVERSITY PARTNERSHIP (OR LBAP)

Local Biodiversity Action Plan partnerships (LBAP) are used to develop the partnership needed to complete local [BAPs](#) and the action to deliver conservation priorities. They form the local level of delivery and input to contribute to national targets and strategy, which also contributes internationally to [international targets](#). [Lancashire Biodiversity Partnership](#) was formed in 1998, and currently has 86 partners.

LOCAL RECORD CENTRES (AND LERN)

A Local Records Centre is a not-for-profit service run in partnership for the public benefit, which collects, collates, manages and disseminates information of known quality relating to the wildlife, wildlife sites and habitats of a defined geographical area. Lancashire's LRC is called [LeRN](#): Lancashire Environmental Records Network.

LANCASHIRE'S NATURAL ENVIRONMENT SERVICE

A consortium of services which provides the backbone of information support and action for the natural heritage of Lancashire. It provides match funding from Local Authorities to support the co-ordination of the Partnership together with its work to protect the biodiversity within the county. ([More Info](#)).

LOCAL WILDLIFE SITES

These are sites of substantive nature conservation value. They are non-statutory (not part of English Law, therefore not legally protected) sites defined for their biological interest. They are often equal to or even better quality than the protected [SSSI](#) network of sites, and there are currently more than 40,000 [Local Sites](#) in

England. In Lancashire they are called [Biological Heritage Sites](#).

MAKING SPACE FOR NATURE

The [report](#) by Sir John Lawton, and co-authors, delivered to the Government which reviewed England's network of wildlife sites.

NATIONAL BIODIVERSITY NETWORK (NBN)

The NBN is a collaborative partnership project, which involves [many of the UK's wildlife conservation organisations](#), the government and country agencies, environmental agencies, [local records centres](#) and also many voluntary groups. All of these organisations collect and use biodiversity data and they are all committed to making this information widely available. The Department for Environment, Food and Rural Affairs ([Defra](#)) also supports specific projects to develop the NBN further. Ultimately [NBN](#) aims to make wildlife information available to all and much can be searched through their [Gateway](#).

NATIONAL NATURE RESERVES

A designation of England's finest natural and geological heritage, which come from [SSSI](#) designation and are often [Natura 2000](#) sites. There are currently 224 NNRs, which first came in to being with the [National Parks](#) . ([More Info](#)).

NATIONAL PARK

Formed by the National Parks and Access to the Countryside Act 1949, these are the network of 10 areas in England designated to conserve and enhance the natural beauty, wildlife and cultural heritage of the area, and to promote opportunities for the understanding and enjoyment of the park's special qualities by the public. ([More Info](#)).

NATURA 2000

A European level of sites which aims to protect and enhance our natural heritage through a network of the best sites.

In May 1992 European Union governments adopted legislation designed to protect the most seriously threatened habitats and species across Europe. This

legislation is called the Habitats Directive and complements the Birds Directive adopted in 1979. At the heart of both these Directives is the creation of a network of sites called Natura 2000. The Birds Directive requires the establishment of Special Protection Areas (SPAs) for birds. The Habitats Directive similarly requires Special Areas of Conservation (SACs) to be designated for other species, and for habitats. Together, SPAs and SACs make up the Natura 2000 series. All EU Member States contribute to the network of sites in a Europe-wide partnership from the Canaries to Crete and from Sicily to Finnish Lapland.

Special Protection Areas (SPAs) are classified under the Birds Directive to help protect and manage areas which are important for rare and vulnerable birds because they use them for breeding, feeding, wintering or migration. *Special Areas of Conservation (SACs)* are classified under the Habitats Directive and provide rare and vulnerable animals, plants and habitats with increased protection and management. ([More Info](#))

NATURAL ENVIRONMENT WHITE PAPER

Our natural environment underpins our economic prosperity, our health and our wellbeing. As a result, protecting the environment and enhancing biodiversity is one of [Defra's](#) top three priorities, as outlined in the Department's [Business Plan](#). A key commitment under this priority is the publication of a White Paper on the natural environment by spring 2011.

On 26 July 2010 Defra published their discussion paper "An invitation to shape the Nature of England". We invited all comments and submissions from anyone with an interest in the Natural Environment White Paper. The consultation closed on 30 October 2010, with over 15,000 responses. ([More Info](#)).

NERC ACT 2006

The Natural Environment and Rural Communities Act is designed to help achieve a rich and diverse natural environment and thriving rural communities through modernised and simplified arrangements for delivering Government policy. As well as establishing rights in terms of access and the body we know as Natural England, it also set an extension of the Countryside and Rights Of Way biodiversity duty to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. ([More Info](#)).

RIO EARTH SUMMIT

The informal name for the [UN Conference on Environment and Development](#) in 1992. It provided the international instruments for moving towards sustainable development: Convention on Biological Diversity, Kyoto Protocol and Agenda 21.

SPECIAL INTEREST GROUP

A group set up within the [partnership](#) to develop expertise or action required on a specific issue/agenda highlighted within the Biodiversity Partnership.

SSSI

Sites of Special Scientific Interest are representative of a selection of England's best wildlife and geological sites. There are over 4000 currently, and are offered protection under UK law. ([More Info](#)).

STATUTORY ORGANISATIONS

An organisation which has to exist under UK or English law. This can be local councils, parish councils, and government agencies such as Natural England or Environment Agency.

SUSTAINABLE DEVELOPMENT

The Bruntland Three Dimensional definition for sustainable development is: development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is also linked to [Rio Earth Summit](#), which aimed to put

sustainable development into action internationally. ([More Info](#)).

TECHNICAL WORKING GROUP

The Group within the [structure](#) of the Biodiversity Partnership that provides technical input and expertise around projects, actions and developments within the action plans themselves.

UK PRIORITY SPECIES AND HABITATS

The species and habitats listed by the UK BAP as being a priority for conservation action. There are currently 65 UK [Priority Habitats](#) and 1150 UK [Priority Species](#).

WATER FRAMEWORK DIRECTIVE

The [Water Framework Directive](#) (WFD) is the most substantial piece of EC water legislation to date and is designed to improve and integrate the way water bodies are managed throughout Europe.

It is designed to:

- enhance the status and prevent further deterioration of aquatic ecosystems and associated wetlands, which depend on the aquatic ecosystems
- promote the sustainable use of water
- reduce pollution of water, especially by 'priority' and 'priority hazardous' substances (see Daughter Directives)
- ensure progressive reduction of groundwater pollution

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