Biodiversity News 2014

... for all the latest in biodiversity news

| Issue 63 |
Winter Edition

Contents

Please note that the views expressed in Biodiversity News are the views of the contributors and do not necessarily reflect the views of the UK Biodiversity Partnership or the organisations they represent.

From *the* Editor

A warm welcome to the Winter edition of Biodiversity News and a Happy New Year to you all! As ever, our content encompasses a wide variety of projects, with contributors ranging from individuals to NGOs to Government-led initiatives.

In this edition, the British Trust for Ornithology's *Garden Butterfly Boom* reveals how last summer's hot weather provided a much desired boost to various butterfly species, who responded with sudden and dramatic increases in their numbers — great news which similarly reflects the hard work and commitment of the various volunteers who both directly and indirectly aid our biodiversity; be that in active research, analysis or work on the ground.

Perhaps the most encouraging and innovative articles to be featured in this season's newsletter are *Quarrying's Biodiversity Boost*, by the Mineral Products Association, and the Species Recovery Trust's *Biting Back*. To me, these not only reveal the integral role businesses must, and do, play in the conservation of our natural environment but, arguably more importantly, highlight that if we are to preserve our biodiversity then we must look for and embrace answers in unexpected places— encompassing quarry's and wart creams alike! As Nigel Jackson, Chief Executive of the MPA notes: "many people do not associate our industry with biodiversity enhancement", and yet, as the article exemplifies, excellent collaborative conservation work flourishes from these unassuming origins.

Lastly, whilst it sadly remains wet and chilly outside, following the recent storms and flooding which have swept throughout the country, I hope you enjoy reading this newsletter and are warmed by the stories of the positive work it contains.

Yours faithfully,

Rachel Coombe

To check out previous editions of Biodiversity News please select below

GARDEN BUTTERFLY BOOM

British Trust for Ornithology

After a run of dismal summers, not to mention a late start to spring this year, our butterflies were sorely in need of a spell of dry, warm weather. Thankfully this summer delivered and results from the British Trust for Ornithology's (BTO) Garden BirdWatch weekly survey, show that many species recovered spectacularly.

The late spring delayed the emergence of many garden butterflies, producing sharp peaks in activity rather later into the year than is usual. Many species were present in numbers well below what would more normally be seen in the Garden BirdWatch figures for early summer and BTO researchers were initially uncertain as to whether this would be another bad year for butterflies.

However, the summer soon turned into a glorious one and many butterfly species responded with sudden and dramatic increases in numbers. There were barely any Meadow Brown butterflies seen in Garden BirdWatch gardens at the end of June – the start of their usual flight period – but by mid-August they were reported in almost 25% of gardens. This is up 56% from last year, which is excellent news as the species has been declining nationally. Small Tortoiseshells had a less dramatic increase but were still seen in 46% more gardens this summer than in 2012.

The most impressive story of the year, however, belongs to the Peacock. This species overwinters as an adult, and was slow to emerge this year, with activity initially peaking about three weeks later than normal. However, once the weather improved and the first brood of the summer started to emerge, it did much better than in recent years. At the end of July, only 3% of Garden BirdWatch gardens had reported Peacocks but by the end of August, there were reports from 47% of gardens, which was 68% up on what was recorded in 2012.

However, as Clare Simm, from the Garden BirdWatch team, explains, not all butterflies experienced a good breeding season. "*Whilst Summer 2013 was successful for many butterfly species, for some species the reporting rate from gardens was much lower than in 2012. These included Red Admiral and Holly Blue, species whose numbers can fluctuate quite dramatically from year to year because of factors such as the size of parasite populations.'*"

She added: *"As you can see, the BTO's Garden BirdWatch isn't just about birds. Our participants provide us with vital information about other wildlife too, helping us understand how important our gardens are as a habitat for all wildlife."*

To find out more about the BTO Garden BirdWatch, ask for a free information pack which includes a copy of our quarterly magazine. Email gbw@bto.org

ACTION PLAN FOR POLLINATORS IN WALES

The Wales Biodiversity Partnership


© Bumblebee Conservation Trust

The Welsh Government has worked with industry and stakeholders to look in more detail at the evidence and issues around pollinators and their conservation in Wales. Following consultation the Action Plan for Pollinators sets the strategic vision, outcomes and areas for action to improve conditions for pollinators and work to halt and reverse their decline in Wales.

The plan describes the current situation in Wales and identifies areas where action is needed. It details our Vision for Pollinators in Wales, and puts that into the context of the Welsh Government's priorities and policies. It also lays out an Agenda for Action – the outcomes and areas for action that have been identified and how we will work towards them. The four main outcomes are:

Outcome 1: Wales has joined up policy, governance and a sound evidence base for action for pollinators

Outcome 2: Wales provides diverse and connected flower rich habitats to support our pollinators

Outcome 3: Wales' pollinator populations are healthy

Outcome 4: Wales' citizens are better informed and aware of the importance and management of pollinators

The Action Plan for Pollinators and the Draft Implementation Plan were launched at the Royal Welsh Show in July 2013 by Alun Davies AM, Welsh Minister for Natural Resources and Food. The first action agreed was to form a Pollinator Taskforce to develop and take the actions forward. A group of representatives from over 30 organisations have agreed to be on the Taskforce and met for the first time on October 8th in Aberystwyth.

The Taskforce's subgroups will take the actions forward on the following areas initially:

- *Roadside Verges Management*
- *Sustainable Bees*
- *Agri-environment schemes*
- *A mobile app*
- *Wildlife Gardening*

Members of the Taskforce will also be working closely with Defra's National Pollinators Strategy on evidence and monitoring.

Regular updates will be posted on the Wales Biodiversity Partnership website: www.biodiversitywales.org.uk

Or you can contact the Taskforce's Secretariat for more information, via telephone: 0300 062 2285 or email: gemma.light@wales.gsi.gov.uk

Improvement Programme for England's Natura 2000 Sites (IPENS)

Rebecca Smith, Natural England

England has a diverse range of habitats resulting in a wonderfully rich and varied wildlife. It hosts some of Europe's most threatened species and habitats which are protected as part of the Natura 2000 network. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), collectively known as Natura 2000 sites, are protected under European legislation for their important wildlife and habitats. In England there are 337 Natura 2000 sites covering 2,077,276 hectares.

The Improvement Programme for England's Natura 2000 sites (IPENS), supported by European Union LIFE+ funding, is enabling Natural England, the Environment Agency, and other key partners to plan what, how, where and when to target their efforts on Natura 2000 sites and the areas surrounding them.

What's the purpose of the programme?

Whilst many Natura 2000 sites are well on the path to recovery, a significant number continue to face pressures and threats such as pollution, over and under grazing, and impacts from invasive species. IPENS is working with key stakeholders to develop a strategic approach to achieving favourable condition on England's Natura 2000 sites by reviewing, for each site:

- the risks and issues that are impacting on or threatening the condition of the site
- which actions could be used to address them
- how much it will cost and where the money could come from

What will IPENS deliver and when?

By 2015 the programme will:

- Develop a Strategic Framework for the future management of Natura 2000 sites.
- Develop Theme Plans to address issues that affect multiple Natura 2000 sites.
- Produce a Site Improvement Plan for each Natura 2000 site and integrate it into the relevant River Basin Management Plan.
- Identify and, where possible, plug gaps in our Natura 2000 evidence.

IPENS and the Major Landowners Group discuss the qualities of drainage ditches at the Somerset Levels and Moors SPA with farmer David Banwell © Phil Brewin/Somerset Internal Drainage

How IPENS will help

This will be the first time that this information will have been drawn together for all of England's Natura 2000 sites. It will provide us with:

- An improved understanding of the issues affecting our Natura 2000 sites and how to address them.
- A clear, costed, plan of action for improving their condition.
- Recommendations to address current gaps in Natura 2000 funding and evidence.

It will also help enable the UK Government to meet its responsibilities under the Habitat and Birds Directives. >

What's happened so far?

Theme Plans

Through extensive analysis of available data sources and discussions with stakeholders the IPENS project team has identified the following priority issues (pressures and threats) for action:

- Invasive non-native species
- Grazing
- Habitat fragmentation
- Species management
- Hydrological functioning
- Diffuse Water pollution
- Lake restoration
- River restoration
- Aerial nitrogen deposition
- Coastal squeeze
- Coastal recreation and disturbance

Priority is given to issues which affect multiple sites; those which need addressing at a national scale; those needing a strategic approach; or where IPENS may want to advocate a particular approach. Theme Plans - strategic documents which clarify the nature of the issue and identify solutions across *Natura 2000* sites - will be developed for these issues.

Site Improvement Plans

We have also begun developing Site Improvement Plans (SIPs) for each Natura 2000 site. These Plans outline the measures required to achieve and maintain the European species and habitats in favourable condition. They will:

- Provide a high level overview of the issues affecting the condition of the site.
- Identify the priority actions required to tackle those issues and the financing sources available.

SIPs are not detailed habitat management plans, or a fully agreed and funded programme of specific measures ready for on the ground delivery. Rather, they will be used as a key source of information that helps direct the actions of organisations involved in the management of Natura 2000 sites.

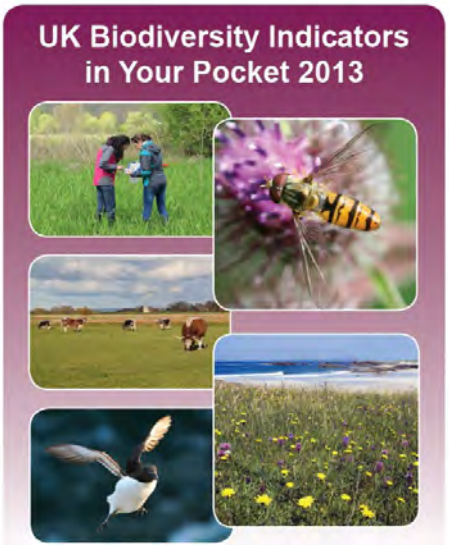
Next steps

Over the coming months the project team will be working with key stakeholders to both refine the focus and content of the Theme Plans and continuing to develop the SIPs.

Further information can be found on our web pages www.naturalengland.org.uk/ipens2000 or contact us at IPENSLIFEProject@naturalengland.org.uk

MIXED PROGRESS TOWARDS OUTCOMES OF 'Biodiversity 2020'

Rachel Coombe, Defra



Front cover of the Indicators 'Pocket Guide'

Biodiversity, the variety of all life on earth, is significant because it underpins many of the vital benefits we derive from the natural environment. It contributes to our economy, our health *and* our wellbeing.

In 2011, the Government published *Biodiversity 2020: a strategy for England's wildlife and ecosystem services.* This ambitious strategy set the direction for biodiversity policy for the next decade; guiding Defra's conservation efforts, with the overarching ambition to halt overall loss of England's biodiversity by 2020.

The England Biodiversity 2020 indicators show progress with the outcomes and priority actions set out in *Biodiversity 2020.* The 24 indicators within, comprised of 49 individual measures, cover a huge variety of data provided by Government, research bodies, and Non-Governmental Organisations. Many of the data sets used span impressive time periods, allowing for assessment of long-term and short-term change.

2013: The Results

The 2013 assessment, published in October this year, tells us that pressures on biodiversity remain high. Despite clear action and some success, many species and habitats are still in decline. In the long term, 24 per cent of measures show an improvement, while a further 24 per cent show deterioration. In the short term, 27 per cent of measures show an improvement, and 27 per cent show deterioration.

Twelve measures show either an improvement in both the long term and the short term, or improvement in the short term if long term assessment could not be made. Examples of these measures include: 'extent of protected areas at sea' and 'local sites under positive management'. Collectively, these measures reveal the progress made by Government, NGO, practitioner and individual initiatives in protecting biodiversity.

Conversely, two measures show improvement in the long term but are deteriorating in the short term: 'time spent in environmental volunteering' and 'expenditure on biodiversity in England'. Ten measures, including 'pressure on biodiversity from invasive species in terrestrial environments', have deteriorated in both the long and the short term, highlighting the amount of work that yet remains to preserve England's biodiversity.

What's new this year?

Several key additions to the indicator set have been made since the previous publication in 2012 , which represent a significant step towards being better able to monitor progress against biodiversity targets. These include a new indicator on status of priority species and another for plant genetic resources. Development work is ongoing to design indicators for Strategy outcomes that still lack suitable data.

What's next?

The Biodiversity 2020 indicators are subject to on-going development and review. In 2014 Defra intend to publish seven new indicators, whilst eight indicators in the existing set, currently with incomplete data, will be further developed. A complete set of indicators will ensure an effective evidence base to inform the policy response to Biodiversity 2020.

© Alex Nail

In November 2013, the Heritage Lottery Fund (HLF) announced grants totalling £21m to conserve nine distinctive landscapes. This investment will ensure a boost for rural areas and provide long-term social, economic and environmental benefits. The landscapes are:

- **Coigach and Assynt**, a beautiful and remote part of North West Scotland
- **The New Forest,** extensive ancient woodland and heathland with a strong surrounding community
- **Humberhead Levels** spanning Yorkshire and Lincolnshire, a rare internationally important wetland land scape characterised by significant remains of medieval strip farming and famous for its peatlands
- **Ingleborough Dales,** a limestone landscape in the Craven district of the Yorkshire Dales National Park
- **North York Moors,** home of the pioneering ironstone industry and the early development of railways
- **Lough Neagh** in Northern Ireland, the largest fresh water lake in the British Isles
- **Rusland Valley and Fells,** in the South Lake District National Park with a strong link to the traditional coppicing industry
- **Derwent Valley,** a coalfield area in North East England left behind by deindustrialisation which aims to harness the potential of its heritage for positive change and tourism
- **East Wight,** the eastern tip of the Isle of Wight and an Area of Outstanding Natural Beauty

Railway workers cottages – North York Moors © Richard Burdon

HLF's Landscape Partnership (LP) programme – which has now been running for a decade - is the most significant grant scheme available for landscape-scale projects. To date, over £160m has been invested in 91 different areas across the UK helping forge new partnerships between public and community bodies and ensuring people are better equipped to understand and tackle the needs of their local landscapes.

Professor Sir John Lawton CBE FRS, eminent British ecologist and author of *Making Space for Nature: A Review of England's Wildlife Sites and Ecological Network*, added:

"As a passionate advocate of landscape-scale conservation through habitat recreation and restoration, I am delighted to see HLF's continuing, visionary support for nine more Landscape Partnerships throughout the UK, for the benefits of people, landscapes and wildlife. And as an adopted Yorkshireman, I cannot help noticing, with considerable pride, that three of them are in the iconic landscapes of God's own county!" >

Head of Landscape and Natural Heritage at HLF, *Drew Bennellick,* said*:*

"HLF's landscape-scale funding has helped forge strong local partnerships which have secured the future of some of our most threatened landscapes.

"The nine schemes we are supporting this year have all demonstrated a need for urgent conservation work to the natural and built heritage as well as reconnecting communities to these places. They are important on many levels, including being an integral part of our health and well-being and a significant contributor to the tourist economy.

"The UK's amazing countryside is under ever-increasing pressure and we must act now to make sure it continues to be one of our greatest assets."

The successful LP schemes include:

Coigach and Assynt LP, Scotland - HLF grant of £3m, including £100,000 development funding

Stac Pollaidh from Sgorr-tuath © Alex Nail

Coigach and Assynt is a dramatic, rugged landscape in the far north-west of Scotland. One of the remotest places in Europe, it is home to a small, close-knit community which gives it a strong sense of identity. The project, part of a wider 40-year vision, has been developed by a grassroots partnership led by the Scottish Wildlife Trust. It will restore parts of the landscape, including pathways, blanket bog and heath moor. It will also engage local people and visitors through a comprehensive volunteering programme and a cultural learning programme which will increase understanding of this vast area's complex heritage.

New Forest LP, Hampshire – HLF grant of £2.9m, including £161,000 development funding

The New Forest comprises extensive areas of woodland, wetlands and heath which are closely connected to the surrounding villages, small-holdings and farms. These links, formed over thousands of years thanks to a unique system of land management based on 'commoning' rights, are at risk of being weakened by 21st-century pressures. The New Forest National Park Authority and its partners are taking decisive action to restore and protect this beautiful part of South East England, not only through practical measures but also by developing a shared understanding and enthusiasm between 'commoners', landowners, the wider community and visitors to the New Forest.

Humberhead Levels LP, Lincolnshire and Yorkshire – grant of £1.9m, including £77,500 development funding

The Levels include parts of North Lincolnshire, East and South Yorkshire. Set within a low-lying engineered and drained landscape (often referred to as 'English polders'), the partnership area includes both the UK's largest lowlands raised peat bog complex and its most extensive landscape survival. Rare birds, including breeding cranes and nightjars, thrive on the moors but the bogs are at risk of drying out and the medieval landscape is being lost. Running alongside conservation work will be opportunities for local people to take part in archaeological surveying, traditional ploughing, land stewardship skills and training.

Launch of New "Brownfield Hub"

Jamie Robins, Buglife

A screen shot of one of the downloadable sheets, 'Identifying Open Mosaic Habitat' © Buglife

Buglife have recently launched the new "Brownfield Hub" (http://www.buglife.org.uk/brownfield-hub), a one stop shop for information on brownfields and their invertebrates. The brownfield hub is intended to help anyone from ecologists, planners and developers to wildlife lovers, to understand the value of brownfields for our rare invertebrates and how to protect them.

Buglife have produced a series of downloadable PDF's which highlight the importance of brownfields for rare wildlife, how to identify 'Open mosaic habitat on previously developed land', and how to manage them for key invertebrate groups, alongside useful case studies of Buglife's work.

Brownfields can support a huge amount of biodiversity, and are often the only wildlife-rich space left in our towns and cities. Wildlife-rich brownfields are incredibly diverse, ranging from flooded quarries to spoil heaps and disused railway lines to former landfill sites. Even small sites can contain a mosaic of habitats which are essential to the survival of many invertebrates due to modern declines of more natural habitats, such as flower-rich grasslands. Brownfields are becoming increasingly important within ecological networks, providing refuges and linkages to sustain biodiversity. These documents will help improve the awareness of brownfield wildlife and to help improve habitat management for some of our rarest invertebrates.

Untidy Industries brownfield site © Jamie Robins, Buglife

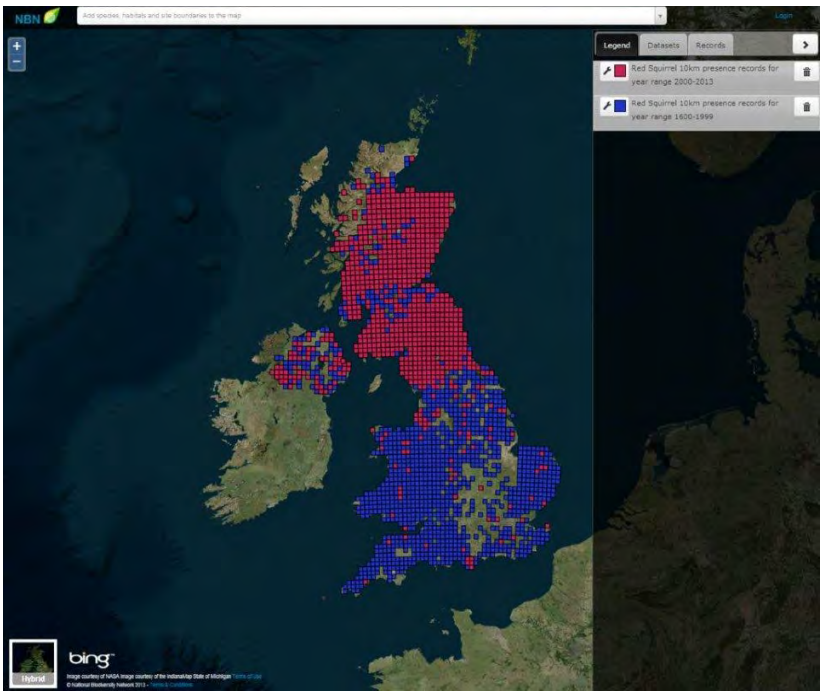
Buglife will continue to add new documents and information to the Brownfield Hub to make it a useful source of up-to-date information on brownfields and their invertebrates

Wildlife Mapping System: *Upgraded*

Mandy Henshall, National Biodiversity Network

- ***Want to know where a species has been recorded within the UK?***
- ***Need to produce species richness maps for protected or conservation priority species?***
- ***Need to access data on species, sites or habitats to help make informed decisions?***

If you do, the NBN Gateway could be just what you need and with its recent upgrade it is now more useful than ever.



Interactive map showing the change in distribution of the Red Squirrel ©NBN 2013, with thanks to all the data providers

The National Biodiversity Network (NBN) is a collaboration of organisations which are all committed to sharing biodiversity data and making it freely and publicly available. The organisations involved range from the government agencies, research organisations, local environmental record centres, conservation charities and local and national recording groups. The NBN Gateway is the internet portal that allows anyone to access this information. Species maps are also available through data.gov.uk

Following a recent upgrade, NBN Gateway 5 gives better performance and stability due to the investment in servers that can cope with the increasing volume of data (now almost 100 million records, covering about 30,000 taxa), and increased usage of the system.

The new Gateway is more flexible in terms of accessing and downloading data. The interactive map now makes it possible to select and query multiple records and create maps of two or more species in different colours. There have also been improvements for the data providers, with data security and the NBN Data Exchange Principles remaining paramount. Data providers can now get more detailed information on who has been using their data and for what purpose, which helps them to report to their stakeholders and recorders.

The new system also includes a tool for requesting access to data or downloading data within certain filters, for example a combination of spatial, taxonomic, datasets, date range and designation filters.

Use of the data is still governed by the NBN Gateway Terms and Conditions, to ensure that the data providers and recorders are credited for the data they are sharing.

We are especially pleased by the data providers' positive attitude to the new system. There were some concerns about the new access controls, but we are pleased to report that over 80% of data providers increased or maintained access to their data during the transition to the new Gateway. >

We are reviewing data provider and data user feedback on an ongoing basis, which will help us to improve the system in future upgrades. We are also monitoring use of the new Gateway, and will be providing monthly summary statistics on data access requests and downloads across the whole system.

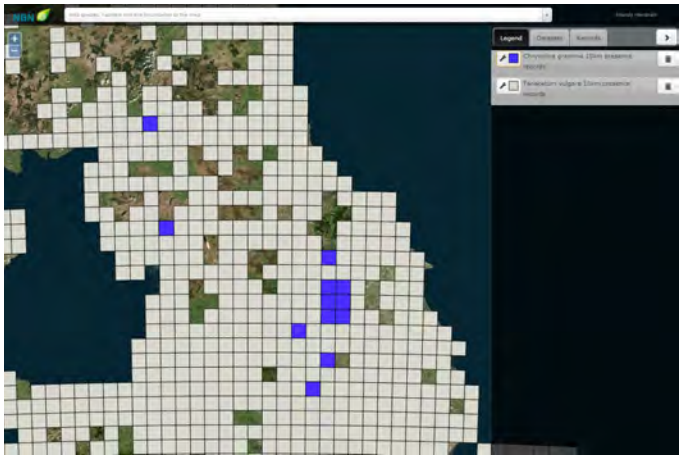
Thanks to more detailed download logs, we already know the data is being used for a wide range of useful and interesting purposes, including:

- Statutory work under the Water Framework Directive requiring records of eelgrass (Zostera marina and Zostera noltei)
- Research to inform Government policy on the impact of weed control on associated biodiversity
- Surveys to locate potential species-rich/Annex 1 lowland grassland/wetland habitats in Scotland
- A large number of MSc and undergraduate student projects, for example a GIS project to analyse the change in distribution of Grey and Red Squirrels in the UK and re-introduction methods.
- Studies of personal interest to expert amateur naturalists, including a study of aculeate Hymenoptera of sand dunes
- Conservation projects, like habitat management work in a freshwater Local Biodiversity Action Plan project

In Europe

The NBN Gateway is also used in a European context to deliver Infrastructure for Spatial Information in Europe (INSPIRE) compliant data. The INSPIRE Directive aims to make it easier to access and combine environmental spatial datasets held by public authorities, to support environmental policy and practice at a national and international level. The UK Location Programme recommends the publication of species data via the NBN Gateway as a sustainable and cost-effective way of complying with the INSPIRE Regulations on Annex III species data.

More than 42 million of the records available through the NBN Gateway are also made available internationally through GBIF, of which the NBN is the UK node.



Interactive map showing the coincidental distribution of Tansy and Tansy Beetle © NBN 2013, with thanks to all the dataset providers. You can find out more about the Tansy Beetle here

Find out more

If you would like to find out more, please visit the NBN website www.nbn.org.uk There you can find out all about the Network and search the NBN Gateway. You can also sign up to receive the NBN e-newsletter so that you are kept up to date with the latest news and developments from across the Network. To search the NBN Gateway visit http://data.nbn.org.uk

You can also contact us at support@nbn.org.uk

MINERAL PRODUCTS ASSOCIATION LAUNCHES NEW 'NATIONAL NATURE PARK'

Mineral Products Association

The Mineral Products Association (MPA) has launched its new National Nature Park - a nationwide network of quarries that have been restored for wildlife and which are accessible to the public. The online resource includes 50 sites around the country totalling 4,000 hectares, with a range of facilities including nature trails, viewing hides and visitor centres.

This is a web based concept which at launch highlights **50 sites** around the country where our members can provide public access to sites where we have proven restoration success and biodiversity achievements.

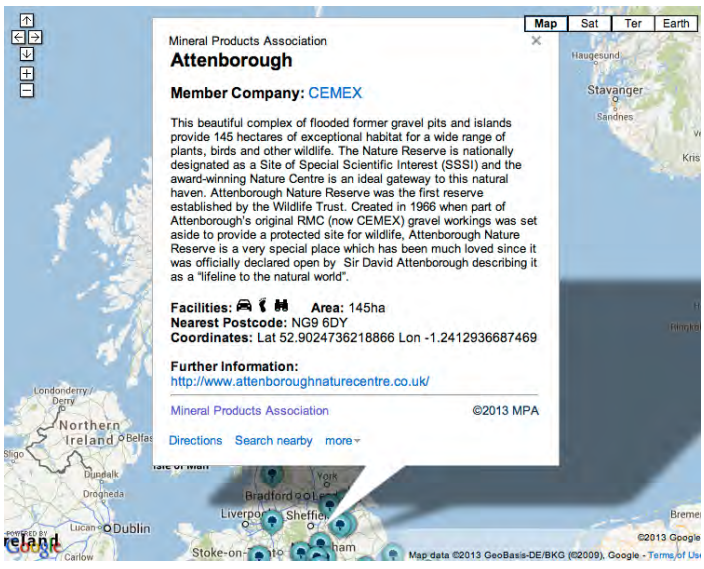
MPA's National Nature Park:

http://www.mineralproducts.org/nature_map.htm

Nigel Jackson, Chief Executive MPA, said: "This is a landmark moment. This great industry has hidden its light under a bushel for far too long and finally we are beginning to build a potentially new asset for the UK with this new National Nature Park. It is our aim to double the number of quarries in the network to **100** over the next 2 years or so.

"The new Park will become part of the industry's legacy. This is part of our contribution to what Sir John Lawton was aiming at in the review of England's wildlife and ecological network, 'more, bigger, better, joined up'.

Screen shot of MPA's National Nature Park online resource showing a nationwide network of quarries that have been restored for wildlife and which are accessible to the public.



Screen shot close-up of MPA's National Nature Park online resource. Clicking on the pointers reveals information on each restored wildlife site.

"The minerals industry has already delivered 5,000 hectares of priority habitats through restoration of quarries, the equivalent of at least five 'Richmond Parks', with a further 5,000 hectares planned. We are therefore uniquely placed to contribute to delivery of national and local biodiversity targets. Our new National Nature Park is part of this story - a growing and nationally significant area that has great wildlife which can be enjoyed by visitors."

NEW TOOLS TO HELP SPECIES WORK

Nick White, Natural England

Despite some notable conservation successes many of England's species continue to decline, with some facing potential extinction. In the past obtaining accurate information about what action is needed by our most threatened Section 41 (S41) species has been hard to come by. As a result, these species needs were often not addressed by conservation projects. At the same time, local sites and the wider landscape have lost some of the complexity and essential elements and features that we know many such species need to thrive. Many of these are not difficult to provide, things like bare ground and scrub, but their absence can make the difference between a species thriving or becoming locally extinct.

However, two new tools are now available to help conservation projects better understand, plan for and deliver species needs and in doing so help achieve a key outcome of *Biodiversity 2020*. These new tools are:

- *An analysis of Section 41 Species priority actions*
- *An introduction to and selection of guides about The Mosaic Approach*

These new tools will be of use to anyone involved in conservation planning and delivery. **So, what are they?**

Section 41 Species – Priority Actions Needed

High Brown Fritillary © Robert Goodison

In England many of our rarest and most threatened species are listed under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act. Outcome 3 of the Government's *Biodiversity 2020* strategy contains an ambition to ensure that *'By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species.'* Protecting and enhancing England's S41 species is key to delivering this outcome.

To help achieve this a wide-range of expert ecologists were asked by the Biodiversity 2020 Terrestrial Biodiversity Group to identify what needs to be done for these S41 species to recover. These experts considered all of the S41 species found in England and identified the actions they believe are needed for their recovery. These actions were categorised and prioritised by these experts

The actions identified by the expert taxonomic groups are what they consider as necessary to support the recovery of England's s41 species and the achievement of Outcome 3 of the Government's *Biodiversity 2020* strategy. The members of the Terrestrial Biodiversity Group have endorsed these findings and are incorporating these actions into their own delivery and would encourage others with an ability to do so to do the same. Please visit Section 41 Species – Priority Actions Needed to access the information. >

The Mosaic Approach – Managing Habitats for Species

An artists impression of an idealised Brownfield, with the mosaic approach fully applied © Lizzie Harper

The Mosaic Approach is about integrating the requirements of species into habitat management, ensuring that our plants and wildlife have the places they need to live and reproduce. A series of presentations are available that explain the approach and how it could be applied.

Most species require a range of elements within a site or a wider landscape in order to complete their life cycle. Many of these elements, such as small patches of bare ground, tall flower-rich vegetation, or scattered trees and scrub, are often absent from the English landscape, and even from some of our most important wildlife sites. This has contributed to serious declines in many species, with some now close to extinction.

Providing a mosaic of these elements in the landscape would go a long way towards meeting the needs of many of these species, enabling them to thrive once again and, in turn, would help to deliver a key aim of *Biodiversity 2020*. Please visit The Mosaic Approach page to download the introductory presentation, about how the approach can be applied to any habitat, and a selection of habitat specific guides.

> *"[The tool] would be really useful if you are doing presentations to a non specialist audience... I will certainly use with community groups and with trainees."*
>
> **Nature Partnership Development Manager**

£2 MILLION BOOST FOR ENVIRONMENTAL PROJECTS IN OVERSEAS TERRITORIES

Rachel Coombe, Defra

With an incredible 90% of the UK's biodiversity to be found in UK Overseas Territories, such assets will be increasingly safeguarded for posterity thanks to Government funding announced last November.

In November 2013, through the Darwin Plus initiative, £2 million of Government funding for environmental projects in UK Overseas Territories (UKOTs) was announced; a substantial sum which will sponsor fifteen individual projects for the next two years over the territories, ranging from tackling invasive plants in South Georgia to an ecosystem assessment in Anguilla. A previous application round in March 2013 led to the funding of fourteen other separate projects at a cost of £1.7 million.

Myviken, South Georgia ©Peter Bucktrout

The Darwin Plus initiative, co-funded by Defra, the Foreign and Commonwealth Office and the Department for International Development, was established in 2012 and pledges up to £2 million of funding annually until 2015/16.

The initiative is a single strategic, cross-Government environment fund and was created through the merger of existing UK Government funding for UKOT projects. The initiative was developed to fulfil commitments in the cross-government UK Overseas Territories Biodiversity Strategy and in conjunction with the Government's White Paper on UKOTs, which was published in June 2012 and committed to providing co-ordinated support on natural environment issues to UKOTs.

'A wealth of unique biodiversity'

Whilst UKOTs Governments are responsible for their own environmental management, the UK Government seeks to draw on the nation's biodiversity expertise by working with local partners to achieve their objectives under international biodiversity treaties such as the Convention on Biological Diversity and the Convention on International Trade in Endangered Species. The latest funding illustrates just one facet of this.

Speaking after the announcement of the new funding, Lord de Mauley, Minister for the Natural Environment and Science, said:

"Following the successful launch of the Darwin Plus fund last year many valuable environmental projects are currently underway in our Overseas Territories, which are home to a wealth of unique biodiversity. These territories, often geographically isolated, are facing a host of environmental threats ranging from climate change to invasive species but the UK Government remains committed to support them in this challenge." >

Establishing the First Coral Nursery in the Cayman Islands

A coral nursery scheme at Little Caymen, which aims to enhance the resilience and natural capacity of coral reefs in the UKOTs, demonstrates how Darwin Plus can successfully benefit biodiversity.

Little Cayman harbours some of the most biologically diverse reef systems in the Caribbean; however, since the 1980s, staghorn coral populations have declined by over 90% in some areas, as a result of factors such as disease, bleaching, and hurricane damage. Staghorn coral is currently one of the most threatened coral species in the western Atlantic.

Coral nursery in the Cayman Islands © Darwin Plus project: DPLUS010

In 2013, the Central Caribbean Marine Institute and the Cayman Islands Department of Environment received Darwin Plus funding to create the first coral nursery in the Cayman Islands, focussing specifically on threatened coral. Darwin Plus provided over £40,000 of funding for the nursery - an artificial structure which creates an optimum site for corals to grow away from predators, competitors and other stressors, before being outplanted to the wild.

The nursery has seen a tenfold increase in the amount of tissue produced in the first ten months alone and, through the process of outplanting, organisers hope to create a healthy, thriving population of staghorn coral at Little Cayman in the near future.

For more information on Darwin Plus projects please see the Darwin Initiative website at //darwin.defra.gov.uk/

QUARRYING'S BIODIVERSITY BOOST:
A Story to be Told

Mineral Products Association

An area of priority habitats the equivalent of at least five 'Richmond Parks' has already been created on minerals sites, with this set to double as currently worked sites are restored.

This significant contribution to nature conservation and biodiversity, was evidenced at the Mineral Products Association's (MPA) Restoration and Biodiversity Awards on the 16th October last year at the Royal Society in London. Nigel Jackson, Chief Executive MPA said, "This fact might seem surprising to many people who do not associate our industry with biodiversity enhancement, but in fact the quarrying sector is very active on this front and uniquely placed to benefit nature."

RSPB research indicates that mineral sites could meet 100% of the targets for nine out of 11 priority habitats previously identified in the UK Biodiversity Action Plan (BAP). The quarrying industry's biodiversity contribution, a unique differentiator and defining characteristic of the sector, was praised by DEFRA Minister, Lord de Mauley. He said: "These awards demonstrate the close relationship MPA and its members have built with wildlife organisations to enhance and protect biodiversity and will deliver a lasting legacy for wildlife."

The event celebrated the excellent work MPA member companies are undertaking, showcasing some of the best examples of quarry restoration and wildlife conservation anywhere in Europe. Several speakers from nature conservation groups highlighted the value of working in partnership with the quarrying industry.

Stephanie Hilborne OBE, The Wildlife Trusts' Chief Executive, said:

"The Wildlife Trusts recognise that MPA members take their responsibility for nature very seriously and have an impressive track record of investing in wildlife habitats. Few sectors have so many staff who are so genuinely committed to the natural environment.

"Now the wider corporate sector is beginning to recognise the value of natural capital, the MPA and its members have an opportunity and a responsibility to lead the way." >

Upper Nene Valley Gravel Pits - Hanson UK: Overall Winner - Landscape Scale Restoration category, in association with Natural England, in the MPA Biodiversity Awards © MPA

The Evidence - MPA Restoration Awards

MPA's longstanding Restoration Awards have been recognising exceptional practice for over 40 years and the 2013 winner of the Cooper-Heyman Cup is Lafarge Tarmac's Ibsley Quarry, Hampshire. This wonderful site for nature has been restored to a mix of open water conservation lakes, wetland and grassland. Hanson UK's Pateley Bridge Quarry, North Yorkshire, in partnership with Nidderdale Visual Arts, Golder Associates, Nidderdale Plus and Harrogate Borough Council, is highly commended in the Restoration Awards and also won an MPA Special Award. Lafarge Tarmac's Threshfield Quarry, in the Yorkshire Dales National Park, is also highly commended.

The Evidence - MPA Biodiversity Awards

Ardley North Quarry - Smith and Sons (Bletchington) Ltd with Environmental Solutions through Partnership (ESP) Ltd: Overall Winner – Innovation category in the MPA Biodiversity Awards © MPA

For the first time this year, MPA's Biodiversity Awards had three categories: Landscape Scale Restoration, in association with Natural England; Innovation; and Individual Contribution.

The winner of the Landscape Scale Restoration category is the Upper Nene Valley Gravel Pits in Northamptonshire entered by Hanson UK. With considerable help from Hanson UK's network of operational and restored quarries in the area, it has been possible to create one of Europe's newest Special Protection Areas for vulnerable bird species in this beautiful valley. A 16-mile long string of carefully managed wetlands has been created.

The winner of the Innovation category is Ardley North Quarry in Oxfordshire entered by Smith & Sons (Bletchington) Ltd with their landscape consultants, Environmental Solutions through Partnership (ESP) Ltd. They used Pond Conservation's 'Aggregates Pond Creation Toolkit' to adapt their restoration scheme in 2009. This included creating a series of overflowing ponds which vary in profile and not only attenuate surface water and reduce erosion, but also enhance biodiversity. The ponds offer many aquatic and marginal habitats for diverse species. Importantly, the ponds feed into a wider aquatic network through a specially created rock weir, cut into the limestone ridge of the geological SSSI with the permission of Natural England.

The runner-up in the Innovation category is Hanson UK's Whiteball Quarry in Somerset. One of Whiteball Quarry's ponds was developed as an 'Ark site for crayfish', a habitat for white-clawed crayfish, away from the threat of signal crayfish. Invertebrate and amphibian surveys of the area revealed five species of amphibians, including great crested newts (GCNs). Buglife submitted a paper to Natural England explaining that the introduction of white-clawed crayfish to the pond would not have a significant effect on the GCNs, and the crayfish translocation license was granted. 60 tonnes of rock were placed providing holes for crayfish refuge and breeding before they were released into the pond.

The winner of the Butterfield Trophy for Individual Contribution to Biodiversity Award is Phil Harding, Farms and Restoration Manager at Brett Group. His individual efforts have helped to deliver a long list of first class restoration and biodiversity projects and, with this, a continuous stream of awards. It is in no small part due to Phil that Brett has won the MPA's prestigious Cooper-Heyman Cup for top class restoration no fewer than five times in his time with the company.

A full room of almost 200 delegates attended the event, which comprised over 50 environmental and other stakeholder organisations, along with those from industry, Government departments, academia and local authorities. Sybil Ruscoe, an experienced journalist most recently associated with the BBC Radio 4 Farming Today programme, expertly hosted the proceedings. Live presentations were complemented by on-screen video footage of the winning sites. The sponsors' exhibition provided an excellent arena for networking before and afterwards.

TINY TAG REVEALS RECORD-BREAKING BIRD MIGRATION

RSPB

A tracking device, which weighs less than a paperclip, has helped scientists uncover one of the world's great bird migrations.

It revealed that a Scottish bird migrated thousands of miles west across the Atlantic to the Pacific Ocean, a journey never recorded for any other European breeding bird.

In 2012, the RSPB, working in collaboration with the Swiss Ornithological Institute and Dave Okill of the Shetland Ringing Group, fitted individual geolocators to ten red-necked phalaropes nesting on the island of Fetlar in Shetland, in the hope of learning where they spend the winter.

After successfully recapturing one of the tagged birds when it returned to Fetlar last spring, experts discovered it had made an epic 16,000 mile round trip during its annual migration - flying from Shetland across the Atlantic, south down the eastern seaboard of the US, across the Caribbean, and Mexico, ending up off the coast of Peru. After wintering in the Pacific, it returned to Fetlar, following a similar route.

Prior to this, many experts had assumed that Scottish breeding phalaropes joined the Scandinavian population at their wintering grounds, thought to be in the Arabian Sea. Yet the destination of this Scottish red-necked phalarope was the Pacific Ocean. The red-necked phalarope is one of the UK's rarest breeding birds. It is now only found in Shetland and the Western Isles, and numbers fluctuate between just 15 and 50 nesting males. Scotland marks the southern limit of its breeding range, with the species far more abundant further north where it occupies wetlands around the northern hemisphere.

Famed for turning the tables on traditional gender roles, in summer, male birds can be found incubating eggs and raising young, whilst the female uses her brightly coloured plumage to attract new partners. In winter, phalaropes congregate in large flocks at sea in regions where currents create upwellings of cold, nutrient-rich water and support blooms of plankton on which the birds feed.

By continuing the project and retrieving more tags from phalaropes after the next winter migration, experts hope to learn the extent to which the Scottish population may be impacted by future changes at sea, how the species might respond to any change and whether any negative impacts in these wintering areas can be mitigated by conservation management in Scotland.

Malcie Smith of the RSPB said: *"To think this bird, which is smaller than a starling, can undertake such an arduous journey and return safely to Shetland is truly extraordinary. This tiny tracker has provided a valuable piece of the puzzle when building a picture of where phalaropes go when they leave our shores. We hadn't realised that some Scottish birds were travelling thousands of miles to join other wintering populations in the Pacific Ocean. Intriguingly, if the usual wintering area of Scottish red-necked phalaropes is indeed in the eastern Pacific, then this Scottish breeding bird may be directly affected by periodic 'El Nino' events when these Pacific waters become warmer and the supply of plankton is greatly reduced. With that in mind, the project, which we will continue, will be vital when considering any future conservation of this rare and special bird."*

Britain's nature networks provide hope for birds threatened by climate change

British Trust for Ornithology

New research provides strong evidence that internationally important British bird populations are being affected by climate change, which will threaten their long-term conservation status. The existing network of special sites, protected and managed for these species, will continue to be important for many of the same species in the future.

©Jill Pakenham, BTO

The paper, published in the journal *Nature Climate Change* and led by researchers at the British Trust for Ornithology (BTO), examined the impact of climate change upon breeding seabirds, such as Puffins and gulls, and wintering waterbirds, like ducks and wading birds, at sites across the UK that are internationally designated as 'Special Protection Areas' (SPAs). It found that while these species are being affected by climate change, the UK SPA network will continue to provide an important refuge for them. Protected areas such as SPAs are a crucial means of conserving wild spaces and rare species, and we need to understand their future role as climate change alters the global distribution of wildlife.

The research, which brought together a team of scientists from around Europe, found that climate change can explain more than half of the observed 30-year population trends of the 62 species studied, which included many species found in internationally important numbers in the UK. Based on this information, future projections under a scenario of 4˚C of mean global warming would be likely to cause more than half of these species populations in the UK to decrease by more than 25%. Climate change is a long-term threat to some northern breeding seabirds, with large declines projected for Arctic Terns and Guillemots, and to waterbirds which overwinter on our estuaries in large numbers, such as Eider and Bar-tailed Godwit. Some species like Avocet and Snipe, whose populations may be limited by cold winter weather, are anticipated to increase, alongside breeding Common Terns.

Importantly, although there may be some change in the range of species which individual SPAs currently support, the study projected that these sites will continue to hold internationally important bird populations in the future. The SPA network may not stop some species declining, but will provide an increasingly important refuge for our birds. The UK's existing SPA network provides a strong foundation, which can be managed to keep pace with population changes of individual species, so that we can give our birds the best chance possible of coping with the future stresses that climate change will impose.

Dr Ali Johnston of the BTO and the paper's lead author, said *"Here we show that many recent changes to UK bird populations have been driven by climate and that these impacts are set to continue into the future, leading to some large population declines for several species. However, there is also a positive message; we found that the measures we already have in place to conserve our seabirds and waterbirds are 'future-proofed' for a changing climate, and will also protect important populations in the future."*

GOLDEN PLOVER
- harnessing modern technology

Mike Green et al, Natur Cymru

Golden plovers seen from Pumlumon, Nantymoch © Liz Fleming-Williams

Golden plover *Pluvialis apricaria* were once relatively abundant in areas such as the Elan Valley, high in the Cambrian Mountains in mid-Wales. Since the 1980s their breeding populations have reduced by over 80%, and just 36 breeding pairs were found in Wales in 2007. Possible causes include afforestation in the uplands, unsuitable grazing pressures, changes in wintering habitats or locations, and changing climate. It is likely to be a combination of reasons, making it very difficult to suggest viable conservation action.

Technology to the rescue

Study 1 – Assessing the vegetation

We chose two sites, Plynlimon SSSI and parts of the Elenydd SSSI. Regular monitoring over many years suggests that the vegetation of these areas has not changed. Both sites were re-surveyed for breeding birds in 2011 and 2012, and the results showed that golden plover have dramatically reduced over the last 30 years.

Site	1982/1984	2011/2012	Change (%)
Elenydd (Trumau) (1982/2012)	14	4	- 71
Plynlimon SSSI (1984/2011)	13	1	- 92

Using satellite imagery going back to the late 1970s, we created a time-series of images assessing past conditions of the sites in relation to their current condition. Any changes could indicate reasons for the fall in golden plover populations. Initial results from Plynlimon appear to confirm that there haven't been any major vegetation changes. Work on Elenydd continues, concentrating on whether or not *Molinia* has become more dominant.

Study 2 - Tracking golden plovers

Over a large area of mid Wales we surveyed flocks on a regular basis and noted colour rings. The location of each flock was recorded with a description of habitats. Ringing at night revealed that the birds used different fields, tending to feed at night and roost during the day.

There were many fewer birds than in previous winters, with 88 sightings from September 2012 to March 2013. With the onset of cold weather most birds left the area.

Two different stories

Two birds, 'Ceri' and 'Hawn', were fitted with harness-mounted, solar-powered satellite tags, allowing daily movements to be plotted. Ceri remained in the same field for two weeks following her tagging but by 11th December she turned up in Spain. She then moved to the Spanish-Portuguese border and the last transmission was received from there towards the end of January. >

Colour ringed golden plover © Tony Cross

Hawn, meanwhile, moved between several sites in South Wales and Carmarthenshire as the weather worsened. She returned again to her ringing area on 10th April and we stopped receiving signals soon afterwards.

The satellite tracking shows two very different reactions to cold weather – leave the country completely or make shorter movements for a temporary respite. That Hawn seemed to want to return to the ringing area more than once indicates that conditions there, in warmer weather, must be attractive. This very mobile nature of golden plover highlights the difficulty in protecting their habitat. The traditional method of designating key sites will obviously not work if these sites depend on current weather conditions.

One ringed bird was shot dead in Cornwall. This highlights the absurd situation where golden plovers are on the 'Red List' of birds of Conservation Concern in Wales (Amber list, UK) but are still on the legal quarry list.

New technologies can complement traditional fieldwork to try to help us to understand why golden plover and other species are in such dire straits, but it is important that new scientific finds are quickly incorporated into action on the ground – unless we have some real action then we are all wasting our time!

IMPORTANT

Please report any ringed golden plovers you see, even if you can't read the colour combination. Please note grid reference and if possible flock size, along with the habitat, and send to plovers@ecologymatters.co.uk or 01970 832491.

Acknowledgments

The breeding season project was funded as part of a KESS studentship at Aberystwyth University with support from Ecology Matters. The winter ringing project was supported by a grant from Ecology Matters, with the satellite tagging and re-sightings surveys supported by a separate grant from the Welsh Government Ecosystem Resilience and Diversity Fund.

Mick Green and **Tony Cross** are Directors of Ecology Matters, **Heather Crump** is a final year PhD student at Aberystwyth University and **Paul Leafe** is a ringer based in Montgomeryshire.

This article first appeared in Natur Cymru, the quarterly magazine which flies the flag for the nature of Wales. Subscriptions cost £15 a year by direct debit. Details at www.naturcymru.org.uk.

Oak Polymore © Jill Butler

A rare fungus has been found and recorded for the first time ever in Northern Ireland. The hidden gem, a bracket fungus called oak polypore (Piptoporus quercinus), was discovered by the Woodland Trust at Forest Service's Belvoir Park Forest in Belfast.

Oak polypore lives exclusively in old oak trees. Unfortunately, due to loss of habitat, it is in decline in central Europe and is already extinct in many areas of northern Europe. And in Great Britain, where records are extremely scarce, the species is considered endangered.

Jill Butler, conservation advisor with the Woodland Trust, made the discovery this summer. It has now been verified by Dr Roy Anderson of the Northern Ireland Fungus Group, who was made aware of the find by Northern Ireland Environment Agency.

Jill says: "This is an absolutely fantastic find – a first for Northern Ireland. Oak polypore is associated with important concentrations of ancient and veteran oaks. It's fitting that it was found at Belvoir Park Forest, which is lucky enough to boast a significant number of magnificent old oaks. And this particular one, estimated to be around 500 years old and completely hollow inside, is possibly the oldest tree in Northern Ireland."

Ancient trees and fungi have a close and mutually beneficial relationship. Decay fungi like oak polypore depend upon nutrients locked up in the dead heartwood (the inner region) of the tree trunk. As they colonise the wood it begins to soften, and other creatures such as rare insects are able to eat it. The wood is broken down further and in the process the tree starts to hollow. The insects and fungi work together to recycle the dead wood, and nutrients are returned to the soil, providing essential food for the tree.

Jill continues: "Northern Ireland has its share of precious veteran trees, with approximately 3,000 registered on the Trust's Ancient Tree Hunt website[2]. Our oldest trees are the natural equivalent of listed buildings, yet have no automatic form of protection. They've stood for hundreds of years, witnessed historic events and are home to many rare and vulnerable species of wildlife. These trees, just like the ancient oaks at Belfast's Belvoir Park Forest, are natural living monuments that can never be replaced."

To find out more about the country's oldest trees, take a look at www.AncientTreeHunt.org.uk

Developing Landscape -Scale Conservation

in Carmarthenshire

Amanda Evans, Carmarthenshire County Council

Here in Carmarthenshire we are carrying out a pioneering landscape-scale mitigation project in the Marsh Fritillary *Euphydryas aurinia* stronghold of Cross Hands.

The area, which extends over 5600 Ha, is a growth area in south-east Carmarthenshire. It is characterised by a particularly high level of industrial and residential development, in one of the best areas of Purple moor grass *Molinia caerulea* dominated marshy grassland habitat in the UK. It contains one of the largest metapopulations of the Marsh fritillary butterfly in Wales, centred on the Caeau Mynydd Mawr Special Area of Conservation (SAC). This has been notified primarily for the butterfly, an Annex II species, and for the Annex I Molinea meadows and Northern Atlantic wet heath habitat it contains.

In preparing Carmarthenshire's Local Development Plan (LDP), Carmarthenshire County Council commissioned a Habitats Regulations Assessment for the area. This concluded that without mitigation, land use proposals in the Cross Hands growth area would, in combination, potentially have an adverse effect on the butterfly SAC feature. It was recommended therefore that the LDP included a mitigation strategy to address the problems of potential habitat loss and fragmentation caused by development. The report suggested that a financial contribution from every developer in the area could be used to finance management of enough suitable/good condition habitat to meet the conservation objectives of the SAC. This would counteract any potential adverse effects on the Marsh fritillary metapopulation of the Caeau Mynydd Mawr SAC. This works both ways; it simplifies the planning process, allowing development to continue. In return, the project is able to plan management in areas best suited to the butterfly.

An abundance of research has been carried out in the area, beginning in 2004 with a study of habitat condition within the metapopulation area by Butterfly Conservation and followed by subsequent studies, including a project encouraging local landowners to enter into management agreements, and a mapping exercise classifying habitat. Regular population counts continue to be undertaken by volunteers from Butterfly Conservation and two research projects are also underway, jointly funded by the project and The National Botanic Garden of Wales to investigate the genetic variation and seed viability of Devil's bit scabious *Succisa pratensis,* the larval food plant of the butterfly.

All of this research is invaluable in informing the delivery of the project, the aim of which is to secure 100 Ha of habitat in good or suitable condition. As the SAC itself only extends over 25 Ha (therefore not large enough to support a viable population long term), a network of other sites within 2 km of known Marsh Fritillary populations will be established where migrating individuals can colonise new areas of habitat. This will take the form of capital works to allow land to be managed through grazing, management agreements, rental agreements and land acquisition.

Community involvement and education will also be important, to raise awareness and assure the long-term sustainability of the project. Work with local volunteers has just begun; seed from Devil's bit scabious *Succisa pratensis* has been collected and planted to provide a stock of plants to be introduced to sites which are currently in unsuitable condition for the butterfly. It is early days, but a little help from local people goes a long way.

MERSEYSIDE PROJECT'S *Heavenly* Prospects

John Bark, The Conservation Volunteers

Volunteers plant heather at Pex Hill ©Neil McMahon

A £50,000 plan to increase the area of lowland heath in Merseyside will also benefit astronomers and rock climbers.

Managed by The Conservation Volunteers (TCV), the project is at Pex Hill Country Park, a wooded hill between Widnes and the M62 with views of the Mersey Estuary and the mountains of North Wales. The £50,000 Heritage Lottery Fund grant to The Conservation Volunteers will enable local volunteers to improve the site for wildlife and all its human users.

Pex Hill is important to both local and national Biodiversity Action Plans. It already accounts for 12% of Merseyside's lowland heath, and as the heath doubles in size to become nearly 30% it is hoped that common lizards and grass snakes will once again become numerous on the site. The project will also renovate the park's stunted-oak woods and network of paths, with disabled access a priority. All visitors will enjoy easier and safer access, including the climbers and astronomers, who use two special features of the site – an old quarry and a working observatory.

Disused since 1893, the quarry saw action during the Second World War when the Home Guard peppered its hard sandstone walls with bullet holes; since then climbers have treated it more kindly, regularly using the sheer faces – graded for difficulty, with names like Lady Jane, Pisa and Breakaway - to test and sharpen their skills.

Star-gazers of all ages are drawn to the Leighton observatory, which shares a timber-clad building with the Merseyside offices of The Conservation Volunteers. The observatory is operated by Liverpool Astronomical Society, which meets there every Wednesday to explore the sky with its 12" Meade telescope (assuming clear skies!). On the ground floor, The Conservation Volunteers centre helps to reclaim green spaces across Merseyside, while working with nearby Cronton college and local schools on a wide spectrum of educational activities ranging from small mammal surveys to drama.

© Neil McMahon, TCV

In addition to providing safer access and a more attractive environment for everyone, volunteers on the project will be getting fit and gaining skills by carrying out many different tasks that vary according to the season. They normally meet at The Conservation Volunteers centre every Wednesday at 10.30 am, finishing at 3.00pm.

Join in. *Feel Good.* Contact: n.mcmahon@tcv.org.uk

Biting Back: PROJECT TO SAVE ENDANGERED CRICKET GAINS SUPPORT

Species Recovery Trust

The Wart-biter Bush Cricket (*Decticus verrucivorous*) is one of the most endangered insects in the country. It is now found at only five sites in the UK, all of which are in the South of England. The cricket has been pushed to the absolute brink of extinction as the grassland areas that it inhabits have been reduced by urban and agricultural development.

In the 1990s, a reintroduction programme released hundreds of crickets back into the wild, but sadly this has not been enough to stop the unremitting decline of the species. The cricket is clearly in desperate need of conservation attention and so the Species Recovery Trust is launching a project aiming to protect it from extinction.

© Isidro Martinez

The Wart-biter Bush Cricket achieved its somewhat gruesome name from the age-old practice of using these crickets to chew off unwanted warts. In fact, its scientific name *verrucivorous* comes from the Latin words for wart and devour. Bizarrely, this association with warts may now be helping to save the species.

Bazuka, the UK's number one selling range of simple, effective verruca and wart treatments has linked up with the Species Recovery Trust to help to protect the cricket. Michael Yarrow from Bazuka said that they feel a close association with a creature that was once used to treat warts and are therefore keen to help this species to flourish in the UK once again.

The sponsorship from Bazuka will be vital in funding the work of the Species Recovery Trust, including setting up a monitoring network across all of the sites and performing habitat restoration work where necessary to give this species the best chance of surviving into the future. The cricket has very specific habitat needs, including a mosaic of grassy tussocks, short turf and bare ground with shelter from the wind. The Species Recovery Trust aims to identify where these requirements are not being met and to work to restore the conditions that are necessary for the Wart-biter Bush Cricket to thrive.

The Species Recovery Trust will be looking for volunteers to monitor the sites in the near future. For more information about volunteer roles or about the project, please see the Species Recovery Trust website: http://www.speciesrecoverytrust.org.uk/.

MAJOR NEW LIVING LANDSCAPE PROJECT IN ROTHERHAM

Rotherham Metropolitan Borough Council

As part of its Living Landscape work, the Wildlife Trust for Sheffield and Rotherham has been working with partner organisations, particularly Rotherham Metropolitan Borough Council and the Environment Agency, to develop and fund a 'Rotherham Rivers Project'.

The partnership has identified twelve sites along the corridors of the Don and Rother in Rotherham that will benefit from biodiversity habitat restoration and creation. A three year project has been developed to include practical habitat land management works and ecological monitoring. The project has been successful in funding applications to WREN Biodiversity Action Fund – who have awarded the project £226,929 over three years (September 2013 to October 2016), and Natural England who have awarded the project £13,880 for this year.

The project will enhance the ecological network in Rotherham and will achieve the following:

- Improve and create 94ha of Biodiversity Action Plan habitat
- Bring five Local Wildlife Sites into positive ecological management
- Improve water quality
- Reduce the extent of invasive plant species
- Increase the amount of quality ecological data
- Enhance visitor experiences by improving the quality of nature reserves and local sites
- Improve partnership working in the area and engage local site users

The Environment Agency has also funded research and feasibility studies into river bed and flow engineering to enhance ecological quality in one straightened section of the river. As a number of heavily modified sections exist within the water body it is hoped that actions from this initial study will demonstrate that positive change can be made without major re-alignment.

The project partners have identified an additional 18 sites along the river corridors where biodiversity and water quality enhancement could be achieved and were development work will continue with landowners.

Dr Nicola Rivers, Living Landscape Development Manager of The Wildlife Trust for Sheffield and Rotherham, said: "We are very pleased to have been awarded the funding from WREN as it will allow us to start work on a whole range of habitats to diversify the river corridor environment. We will also be engaging the community in the project by asking volunteers if they would like to undertake ecological surveys and monitor our progress." >

The Rotherham Rivers Project was an accumulation of ideas; the Rotherham Biodiversity Forum suggested the River Rother as a multi-site project area and highlighted a number of sites that would benefit from inclusion. The preparation of a Rotherham Waterways Strategy on behalf of RMBC and EA coincided with the identification of the Wildlife Trust Living Don Living Landscape programme, both of which highlighted the rivers Rother and Don in Rotherham as key project areas.

Living Landscapes are the areas where The Wildlife Trusts are targeting landscape-scale conservation efforts to halt the decline of wildlife and restore the natural environment. The Living Don programme aims to bring about the pro-active management of the River Don catchment in South Yorkshire, to create a robust and ecologically functional green network from the high Moors of the Peak District to the floodplain of the Lower Don Valley and the heart of urban Sheffield and Rotherham. As the Living Don programme area is large (40,000ha) the programme partnership has divided it into six areas and to date the programme has successfully delivered biodiversity enhancement, public engagement and community stewardship work in areas of the Sheffield Moors and Western Valleys; the Rotherham Rivers area is the next priority.

For more information on this project, please contact Rob Miller on 0114 2634335 or r.miller@wildsheffield.com

UK Biodiversity Framework Update

JNCC

Launch of the Implementation Plan and the first Annual Report

You may remember, back in Issue 59 of Biodiversity News (Autumn 2012), that the '*UK Post-2010 Biodiversity Framework*' was introduced. The Framework, published in July 2012, outlines how the work at the UK level will contribute to achieving the Aichi Biodiversity Targets detailed in the Convention on Biological Diversity's *Strategic Plan for Biodiversity 2011-2020* on behalf of the four countries, and therefore assist in reducing the global declines in biodiversity.

In November 2013, the '*Implementation Plan*' for the Framework was published. The Implementation Plan outlines how the priorities identified in the Framework will be addressed and achieved. It is a fairly high-level document rather than a detailed work plan, and includes information about the milestones which have been agreed for the 23 areas of work identified in the Framework, and about how the work is governed. In total, 60 milestones have been identified, covering the period up to 2015.

More recently, in December 2013, the 1st Annual Report on progress under the Framework was published. This report outlines the progress towards each of the milestones outlined in the Implementation Plan, up to November 2013. The aim of these annual reports is to account to the governments of the four UK countries, via their representatives on the Four Countries Biodiversity Group (4CBG) for work towards the framework. This is work carried out at a UK level on behalf of all four governments.

The Implementation Plan, and its first annual report, demonstrate that work is being undertaken, and that progress is being made, to achieve the priorities outlined in the Framework.

Some highlights of recent achievements in the 1st annual report include:

- *Natural Capital at Risk – The Top 100 Externalities of Business* by the TEEB (The Economics of Ecosystems and Biodiversity) for Business Coalition published (http://www.teebforbusiness.org/how/natural-capital-risk.html).

- *Payment for Ecosystem Services Best Practice Guide* published (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200920/pb13932-pes-bestpractice-20130522.pdf).

- *The Peatland Carbon Code* Draft code published (http://www.iucn-uk-peatlandprogramme.org/sites/all/files/UK%20Peatland%20Code%20September%202013%20(for%20publication).pdf). >

- The Ecosystem Services for Poverty Alleviation (ESPA) research programme aims to produce high quality, multi-disciplinary knowledge and capacity to protect and improve ecosystem services and alleviate poverty. The programme is gathering pace and already has 62 journal articles and a good number of citations (http://www.espa.ac.uk)

- Guidance for countries to incorporate biodiversity and ecosystem service values into National Biodiversity Strategies and Action Plans was published in March 2013 (http://www.unep-wcmc.org/guidance-for-incoporating-biodiversity-and-ecosystem-service-values-into-nbsaps_1026.html).

- Two Living With Environmental Change (LWEC) *Report Cards* have been published, covering biodiversity and fresh water (http://www.lwec.org.uk/resources/report-cards/biodiversity and http://www.lwec.org.uk/resources/report-cards/water).

- The International Climate Fund (ICF) is to help the world's poorest adapt to climate change, and to promote cleaner, greener growth. All ICF projects must deliver biodiversity, carbon and poverty benefits (https://www.gov.uk/government/policies/taking-international-action-to-mitigate-climate-change/supporting-pages/international-climate-fund-icf).

UPDATE ON IMPLEMENTATION OF THE NATURAL ENVIRONMENT WHITE PAPER

Chris Hussey, Defra

Front cover of the NEWP Implementation update report
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In 2011, the Government published the Natural Environment White Paper which outlined the Government's ambitions for the natural environment, backed up with a programme of practical action. Since its publication in 2011, Defra has published periodic NEWP implementation update newsletters highlighting significant progress since the last update. All of the previous updates can be found here.

This latest publication, published in November 2013, summarises progress and sets it out in one place. It lists all 92 commitments and sets out the status of each commitment and where further information can be found. It is available here.

FREE BIODIVERSITY TRAINING EVENTS FOR COMMUNIUTIES

Central Scotland Forest Trust

Following the success of the programme of free biodiversity training events in 2012, the Central Scotland Forest Trust (CSFT) have secured funding from Scottish National Heritage, the Scottish Forestry Trust and the Rainford Trust to run more programmes in 2014. As before, all events will be free to attend and are aimed at members of community groups, or interested members of the general public, though are open to all.

Peat bog bugs with The Conservation Volunteers © CSFT

Bumblebee identification with Bumblebee Conservation Trust © CSFT

A programme of fifteen training events was organised in 2013 spread across the Central Scotland Forest. They have covered topics from wildflower identification and foraging to invasive non-native species and practical woodland management. They have been a mix of indoor and outdoor based sessions, with a strong emphasis on field work and practical experience.

The full programme and details of the individual events, as well as how to book, can be found on the CSFT website: http://www.csft.org.uk/out-a-about/things-to-do

Keep an eye on this website for the launch of the 2014 programme around March.

LARGE HEATH BIODIVERSITY CAMPAIGN

Central Scotland Forestry Trust

Following the success of biodiversity projects on British Bluebells, Bats, Bumblebees and Tree Sparrows, THE Central Scotland Forestry Trust (CSFT) have been focusing on peatland and heathland butterflies for 2013, in an attempt to improve the CSF area for Large Heath, Green Hairstreak and Small Pearl Bordered Fritillaries.

Better Homes for Butterflies stand at an event © CSFT

The campaign has had 3 main elements: raising awareness through promotional activities and events; producing educational packs for schools; and undertaking practical peatland restoration projects in suitable areas. To date, CSFT and partners have attended 15 community events with a mobile stand full of information, resources and freebies for people. School Bog Garden kits have been produced for 100 primary schools in the Forest area, enabling them to create their own mini-peatland in the autumn.

The autumn also heralded the practical conservation tasks on bogs or heaths in the CSF. Volunteer work parties were held at Kingshill LNR in Allanton, North Lanarkshire; Cander Moss SWT reserve near Lesmahagow in South Lanarkshire; and Gartlea Moss in Coatbridge, North Lanarkshire. Tasks have included removing trees and scrub from peatland and heathland areas, and blocking ditches with tree dams and also plastic dams.

Funding for the campaign has come from SNH, CSFT, North Lanarkshire Council, South Lanarkshire Council and CSV Action Earth. Butterfly Conservation Scotland has been integral to the success of the campaign through advice, support and advertising the work parties to their volunteers.

More information on the campaign can be found on CSFT's website:
http://www.csft.org.uk/out-a-about/better-homes-for-butterflies

Contents of the school Bog Garden kit distributed to 100 primary schools in the area © CSFT