

# Introduction

## Lowland Derbyshire LBAP



Orchid. Credit: Debbie Alston

Prepared by the Lowland Derbyshire Biodiversity Partnership



This document forms part of the Lowland Derbyshire Biodiversity Action Plan 2011-2020

# Introduction

| Contents   | Page |
|--|------|
| 1. What is 'biodiversity'?   | 3    |
| 1.1 Why is biodiversity important, and why should we conserve it?                            | 3    |
| 1.2 Biodiversity Action Plans – history and context  | 5    |
| 1.3 Previous Lowland Derbyshire LBAPs  | 6    |
| 1.4 New thinking to BAP work beyond 2010   | 8    |
| 1.5 Our new approach to the LBAP: Landscape Character Areas                                  | 10   |
| 2. Structure of the revised LBAP   | 14   |
| 2.1 Monitoring   | 15   |
| 2.2 Who is involved?   | 15   |
| 2.3 How it works   | 15   |
| 3. References  | 16   |
| Table 1: UK Priority Habitats in the LBAP area.  | 17   |
| Table 2: UK Priority Bryophyte, Fungus and Vascular Plant Species recorded in the LBAP area. | 18   |
| Table 3: UK Priority Amphibian and Reptile Species recorded in the LBAP area.                | 18   |
| Table 4: UK Priority Fish Species recorded in the LBAP area.                                 | 18   |
| Table 5: UK Priority Bird Species recorded in the LBAP area.                                 | 19   |
| Table 6: UK Priority Mammal Species recorded in the LBAP area.                               | 20   |
| Table 7: UK Priority Invertebrates (other than moths) Species recorded in the LBAP area.     | 20   |
| Table 8: UK Priority Moths Species recorded in the LBAP area.                                | 21   |
| Figure 1: LBAP Boundaries  | 7    |
| Figure 2: LBAP Action Areas  | 13   |
| Appendix 1: UK Priority Habitats in the LBAP Area  | 17   |
| Appendix 2: UK Priority Species in the LBAP Area   | 18   |



## 1. What is ‘biodiversity’?

‘**Biodiversity**’ is the word we use to describe the **variety of life** that exists on earth. It includes all animals, plants, fungi and bacteria, the complex ecosystems which they form, and even the genetic diversity present within and across all species – everything that could be considered to form the ‘biological diversity’ of our planet. It includes every living thing, from the rarest creature found only in the most remote locations, to the commonest and most familiar species such as the birds and insects you might see in your garden or local park. Despite having such a broad and all-encompassing definition, the term ‘biodiversity’ is often simply used as shorthand for the ‘**wealth of wildlife**’, and particularly to talk about the richness of wildlife and habitats present in any given place. That area may range in size from a single site or nature reserve, right up to a county or even a whole country. A place rich in wildlife is often said to be of ‘**high biodiversity**’ or simply ‘**biodiverse**’.

### 1.1 Why is biodiversity important, and why should we conserve it?

Biodiversity is important to all of us and for a great many reasons. Most obviously, many people simply appreciate biodiversity in its own right. They value **opportunities to see wildlife**, or walk amongst healthy, attractive, biodiverse or ‘wild’ places. A biodiverse environment is therefore important for our **quality of life**. The ability to experience nature – walking in an ancient broadleaf woodland, watching butterflies in a meadow on a summer’s day, or simply watching the birds in our garden or outside our office window – all of these experiences enrich our lives on a daily basis, and often provide a sense of wellbeing.

Studies are increasingly demonstrating that contact with the natural world not only provides us all with a genuine sense of wellbeing, but also helps us to relax, deal with stress and anxiety, to concentrate, and generally improves our **mental health** (Bird, 2007). Biodiverse environments are typically attractive ones that people want to visit, relax in and take exercise in. It is also quite apparent that biodiversity plays an important role in encouraging **outdoor recreation** by increasing the variety, attractiveness and interest of the landscape.



The Sanctuary Bird Reserve, Pride Park, Derby.  
Credit: Nick Moyes

Biodiversity is also an important part of our **cultural heritage and identity**. The natural or semi-natural environments that surround us today are just as much a part of our heritage as our museums and art galleries. These are the wild places that have managed to survive, shaped by centuries of human activity, and millennia of natural processes. Our natural heritage is therefore both our link to, and the product of, our past. But the history of land use and land management varies from place to place, just as the geology, topography, soils and other environmental characteristics differ from one area to another, resulting in the formation of many different habitats, and the distribution of different species. All these factors combined result in suites of habitats and species that differ markedly across the country. They are unique in each area, playing an important part in defining the landscape character and the environmental characteristics of each place. Biodiversity is therefore an essential component of **local distinctiveness**, providing a sense of identity and place.



There are few places where this is more apparent than in Derbyshire. It is a diverse county of very contrasting landscapes, geology, land uses and histories. These result in a county of many differing characteristics, which can be said to consist of different **Landscape Character Types**. Each have their own unique blend of habitats and species, collectively making Derbyshire such a special place to visit, work or live in.

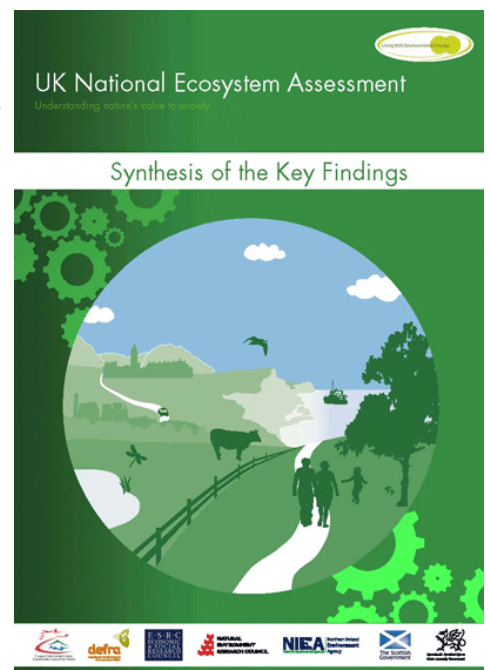


Bird watching in Derby. Credit: Nick Moyes

Given the value that people place on the natural environment and our natural heritage, the importance biodiversity plays in outdoor recreation, and the contribution that biodiversity makes to local character and distinctiveness, it is no surprise that people are prepared to travel in order to make use of biodiverse places. Similarly, it is not surprising that an attractive, diverse, rural county such as Derbyshire should attract significant numbers of tourists who are drawn to the county, in no small part, because of its biodiversity interest.

Unquestionably, **biodiversity tourism** makes a considerable contribution to the economy in Derbyshire, but the **economic value of biodiversity** is far more significant than this. Many industries such as agriculture, fisheries and forestry, as well as the food, nature conservation and tourism sectors, are directly dependent on healthy, biodiverse natural environments, both locally and globally. The natural heritage of Derbyshire is a key factor in attracting and retaining inward investment to the area. A report for DEFRA (GHK Consulting, 2004) estimated that activities that either contribute to the management of the natural environment, or are dependent on a high quality environment, support 299,000 full time equivalent (FTE) jobs and Gross Value Added of £7.6 billion in England annually. It is therefore apparent that through the above industries, biodiversity generates significant economic benefits, as well as providing us with **essential materials and products** such as food, medicines and building materials, which we all depend on.

But the benefits of biodiversity do not end at the provision of products; biodiversity is fundamental in providing services which underpin all life on earth – so called **‘ecosystem services’**. From the global level to the local, natural processes are responsible for providing clean air and water, removing pollution and other contaminants, and treating waste. Natural and semi-natural habitats also help to regulate our climate, and protect us from natural events such as flooding and storms, whilst habitats such as woodlands and peatbogs act as carbon sinks, locking away carbon which would otherwise contribute to climate change. Studies have shown that the economic value of these ecosystem services is immense, and that a large proportion of this value depends on the biological diversity of these systems (TEEB, 2010).



UK National Ecosystems Assessment (2011)



The final argument for the conservation of biodiversity is an **ethical** one. Many people would argue that we share the planet with a great many species of plants and animals, and that we have no right to stand idly by whilst they become extinct, largely as a result of our own actions. Others would argue we have a moral duty to ensure that we pass on a healthy, functioning natural environment to future generations, so that they might equally have the opportunity to experience it, and benefit from it themselves. Indeed, the idea that we should ensure we pass on an environment capable of meeting the needs of future generations is a key principle of **sustainable development**.

It is quite apparent from all the above that conservation of biodiversity is not a luxury; it is essential. The air we breathe, the water we drink, the food we eat, and the products we use on a daily basis all depend on biodiversity, and biodiversity is therefore critical to our own continued survival as a species. Our quality of life and our physical and mental wellbeing also benefit hugely from biodiversity, and we have a duty to conserve wildlife for its own sake, for ours and for future generations. The conservation of biodiversity is not just the partnership's concern, but everyone's. We need to work together to ensure we have a healthy and biodiverse natural environment, with functioning ecosystems and natural processes, for now and forever.

## 1.2 Biodiversity Action Plans – history and context

In June 1992, the United Nations Conference on Environment and Development (UNCED), was held in Rio de Janeiro. The conference became known as the **Rio Summit** or the **Earth Summit**. Its participants, including 172 governments, considered a wide variety of environmental issues such as energy, fossil fuels and climate change, waste and pollution, water scarcity and biodiversity. The conference resulted in 159 governments signing the **Convention on Biological Diversity**. Within a year this number had grown to 168 signatories. By 2011, of all the 192 UN member States, only the USA and Andorra had still not ratified that Convention.



Rio de Janeiro  
Credit Marciofleury

The Convention on Biological Diversity (also known as the CBD or the Biodiversity convention) is a legally binding treaty which provides a world-wide framework for biodiversity conservation. The CBD came into force on 29<sup>th</sup> December 1993. It has three main goals:

- the conservation of biological diversity
- the sustainable use of its components
- the fair and equitable sharing of the benefits from the use of genetic resources

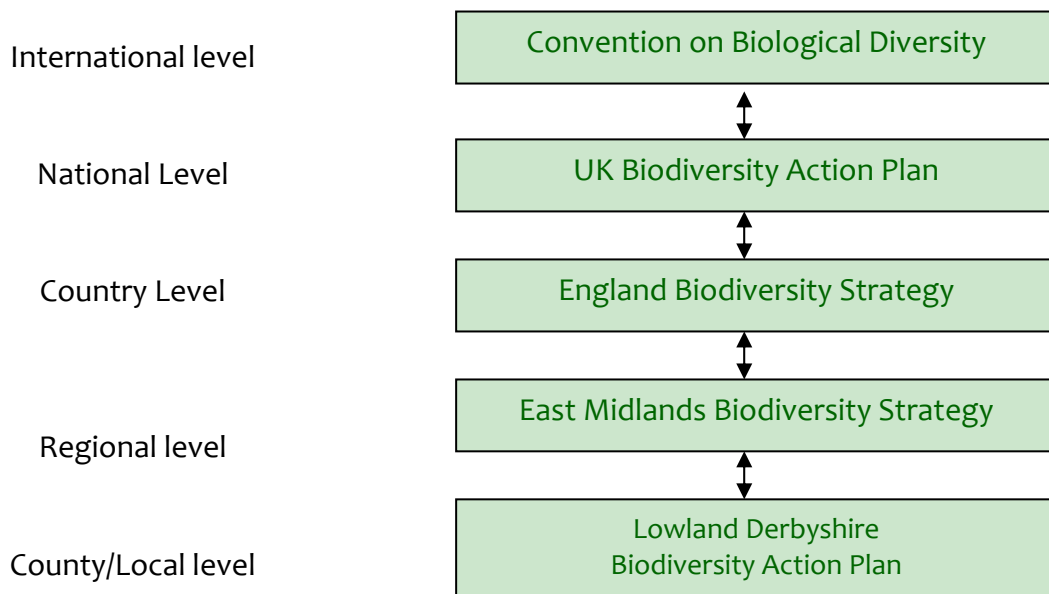
In order to achieve these goals, the CBD called for the creation and enforcement of national strategies and action plans to conserve, protect and enhance biological diversity.

In response to the Convention of Biological Diversity, in 1993 the UK government consulted over 300 organisations throughout the UK and held a two-day seminar to debate the key issues raised in Rio. The product of this was the launch of '**Biodiversity: the UK Action Plan**' in 1994, which included action plans and targets for 45 habitats and 391 species. These habitats and species were chosen because they are considered to be either globally threatened, or evidence indicates they are rapidly declining in the UK, i.e. by more than 50% in the last 25 years. This list was revised in 2007 and now includes 65 **Priority Habitats** and 1,149 **Priority Species**.



The UK Biodiversity Steering Group (subsequently the UK Biodiversity Group, and latterly the **UK Biodiversity Partnership**) was established in order to implement the UK BAP. Action was taken at a local level to create **Local Biodiversity Action Plans (LBAPs)**. Since this time, LBAPS have provided the mechanism for the coordination, guidance, implementation and recording of biodiversity conservation, effectively delivering international commitments and national priorities at the local level. The LBAP partnership for our area was established in 1996, under the original title of the **Mid-Derbyshire Biodiversity Partnership**.

Following the establishment in 1998 of devolved governments in Scotland, Wales and Northern Ireland, environmental legislation and the implementation of Biodiversity Action Plans became the responsibility of each country. In England, this resulted in the establishment of the **England Biodiversity Group** and the publication of the **England Biodiversity Strategy** in 2002, in order to implement the aims of the UK BAP at the country level. The late 1990s also saw a shift towards regionalism, and in 1998 the **East Midlands Regional Biodiversity Forum (EMRBF)** was established. The purpose of the EMRBF was to provide a regional focus on, and network for, biodiversity issues and initiatives. It provided a regional voice for biodiversity issues, ensuring these were fully addressed by the emerging regional structures and initiatives.



From the above, it is apparent that Local Biodiversity Action Plans, such as this **Lowland Derbyshire LBAP**, have a crucial role to play in translating national and sub-national strategies, priorities and targets into local action on the ground. It then reports this back up for monitoring purposes.



### 1.3 Previous Lowland Derbyshire LBAPs

In 1996 when consideration was first given to achieving LBAP coverage for Derbyshire, there were no clear precedents. It was agreed:

- to prepare one LBAP for the Peak District (because of its large proportion of nationally and internationally important habitats);
- to prepare an LBAP for the whole National Forest area (to ensure consideration of biodiversity in the Forest's development);
- to prepare an LBAP for the rest of Derbyshire, outside these two areas.

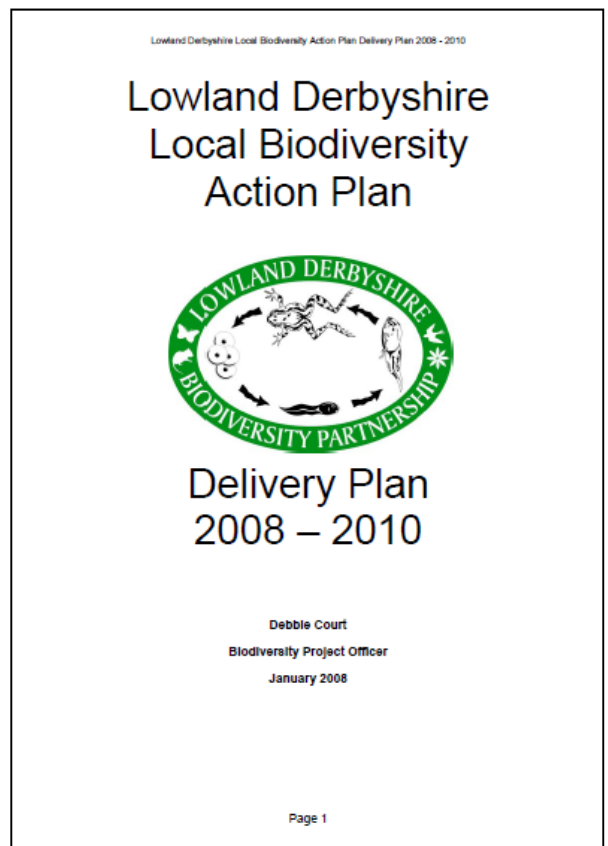
In June 1997, Part 1 of the **'Mid-Derbyshire LBAP'** was launched, with Part 2 following in March 1998. Part 1 set the context for the Plan and provided Habitat and Species Action Plans for most of Derbyshire's priority habitats and some species. Part 2 completed that process. The Plan provided **Habitat Action Plans (HAPs)** for every habitat in the area it covered.

By 2001 however, it became accepted that the National Forest LBAP was primarily a sectoral LBAP, providing priorities for the work of the National Forest Company and its primary partner, the Forestry Commission. As a result it was agreed by all relevant parties that the county LBAP should be extended to include that part of the National Forest area within Derbyshire, and that the name should be changed to the **'Lowland Derbyshire LBAP'**, reflecting its coverage of the whole of the lowland part of the county (see Figure 1). The National Forest LBAP remains in place, however, guiding the work of the National Forest Company. The Peak District LBAP covers the area encompassed by the White Peak, Dark Peak and South West Peak areas, both inside and outside the Peak District National Park.

In 2004 the Lowland Derbyshire Biodiversity Partnership employed its first co-ordinator. Her role was to revise the various habitat and species action plans and monitor the work of the partnership against the local targets.

By 2008 the Lowland Derbyshire BAP Project Officer had produced a **Delivery Plan**, assessing progress to date against the targets set in the original BAP and identifying the work required to achieve the remaining targets by 2010.

The existing LBAP and the associated targets were all set to expire at the end of 2010. It was therefore necessary to review progress against the BAP again in 2010, and the decision was then made to develop a completely new LBAP for Lowland Derbyshire, taking us through from 2011 to 2020 (i.e. this document).



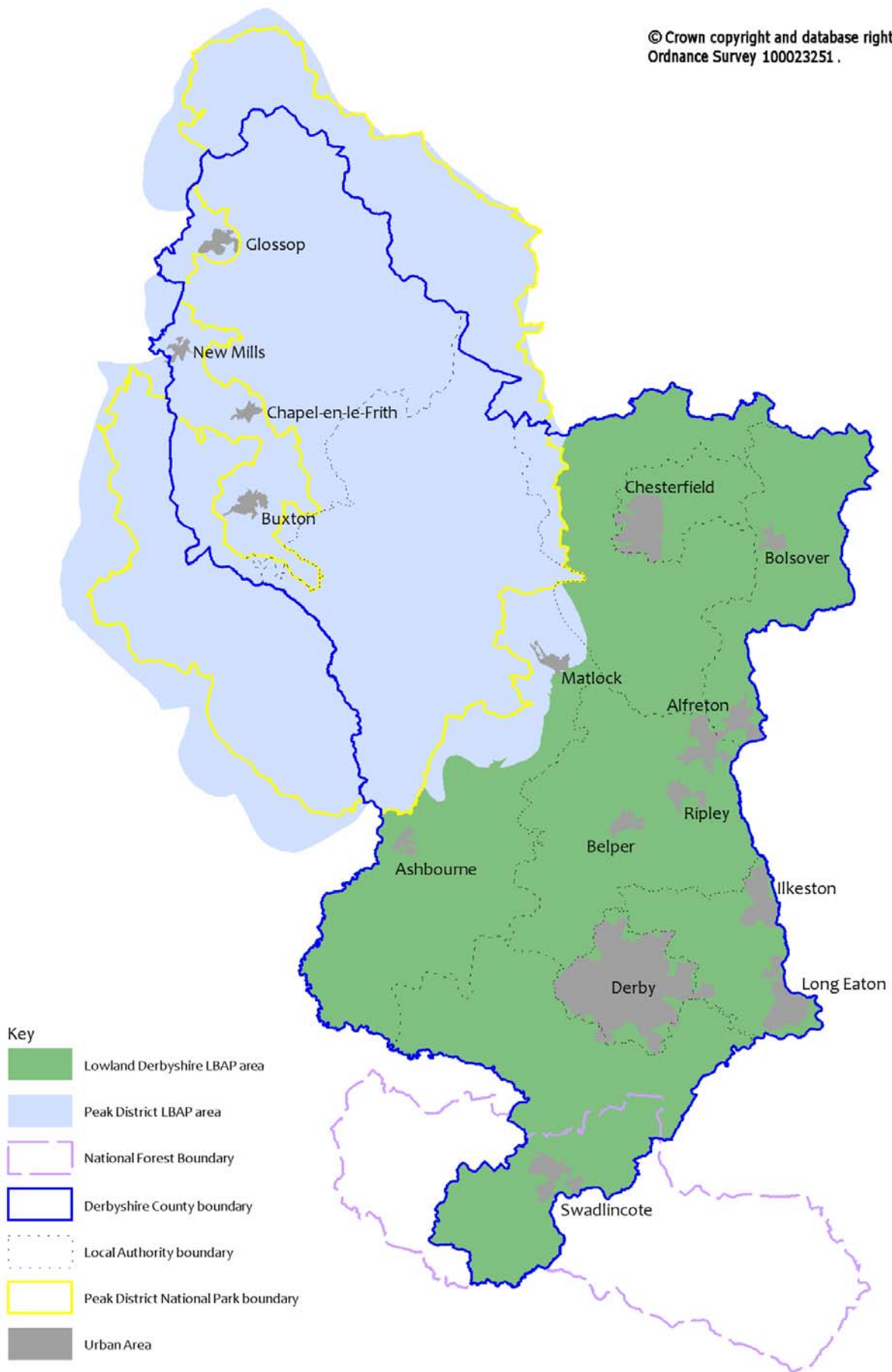


Figure 1: LBAP Boundaries





## 1.4 New thinking to BAP work beyond 2010

2010 was a significant year for biodiversity. The United Nations had declared it the **‘International Year of Biodiversity’**. It was a time to reflect on the importance of biodiversity and the significance of biodiversity losses, to celebrate conservation achievements and a year in which to take action for biodiversity.

Back in 2002, the UK Government had joined other EU countries in making a commitment to halt the decline of biodiversity by 2010 (European Commission, 2006). Some 130 world leaders then agreed to significantly reduce the rate of global biodiversity loss by the year 2010. In the UK a number of **national targets** were set to help to achieve these aims. Many Local Biodiversity Action Plans, including the Lowland Derbyshire LBAP, were written with targets for delivery by the end of 2010.

With the state of biodiversity conservation under intense scrutiny it became apparent that, in many ways, a significant amount of progress has been made since 1992. Since the UK BAP was originally written, conservation priorities have been identified and targets set at all levels, from national to local. As our state of knowledge improved, we have been able to review, extend and refine these targets, and our understanding of conservation concerns, trends and priorities has greatly enhanced over this period.



Cinnabar Moth caterpillar.  
Credit: anemoneprojectors

National reviews demonstrated that Biodiversity Action Plan partnerships at UK and local levels continue to deliver gains for some Priority Species and Habitats, with the rate of decline slowing (and in some cases halted or reversed) and our state of knowledge continues to improve (UK Biodiversity Partnership, 2010). At a national level, 8 Priority Habitats (18%) and 40 Priority Species (11%) were found to be increasing or probably increasing, and 9 Priority Habitats (20%) and 144 Priority Species (39%) were believed to be stable or probably stable. Elsewhere, significant progress has been made on improving SSSI condition, in response to a Government goal of ensuring that 95% of SSSIs in England, were in **‘target condition’** (i.e. ‘favourable’ or ‘unfavourable-recovering’) by 2010. It appeared this target had been met by November 2010, although only 36% were actually in ‘favourable’ condition. In the East Midlands, more than 98% of SSSIs had reached target condition, with 47% noted as being in ‘favourable’ condition (Natural England, 2010a).



At the local level, the **Lowland Derbyshire LBAP review** showed that 63% of the LBAP targets had been achieved or significantly exceeded, and a further 14% of targets had almost been achieved. Monitoring by the LBAP project officer also showed that, in addition to these achievements, there had also been significant improvements in the knowledge about species and habitats in the LBAP area, with community participation and volunteering having been a particular success story. Over six years (2004-2010) our LBAP partners attracted approximately £6.7 million in funding for biodiversity delivery, and more than 36,900 days of practical conservation work were carried out by volunteers.

However, despite the notable achievements recorded at the national and local levels, the situation is still quite mixed. We have some way to go before biodiversity loss is even halted, let alone reversed. At a national level, 19 Priority Habitats (42%) and 88 Priority Species (24%) were believed to be **'declining'** or **'probably declining'** although the rate of decline is slowing for 9 habitats (20%) and 28 species (8%). Eight Priority Species were also reported to have been lost from the UK since the publication of the UK Biodiversity Action Plan in 1994 (UK Biodiversity Partnership, 2010). A report on England's lost and threatened species identified nearly 500 animals and plants that have become extinct in England – practically all within the last two centuries (Natural England 2010b) . It identified those species most at risk of being lost in the near future. In Derbyshire, the Lowland Derbyshire LBAP review confirmed that almost a quarter of targets fell significantly short of being achieved.

In summary, it is quite apparent that despite significant amounts of conservation effort and resources, **we have missed key targets to halt the loss of biodiversity**. Whilst targeted conservation effort has reversed the fate of many declining species, and whilst significant areas of new habitat have been created, we continue to lose species and habitats, locally, nationally and globally - sometimes at an alarming rate.

Over recent years, it has begun to be recognised that we need a step-change in nature conservation action if we are to halt biodiversity loss and begin to make good the historic losses. Increasingly it is being suggested that to achieve this we need to look towards creating large, robust networks of connected, high quality habitats creating and restoring functioning ecosystems. Most recently, the **Lawton Review** was released in September 2010, presenting a comprehensive review of ecological networks in England (Lawton et al, 2010). The review set out to answer two questions, the first of which was

*'Do England's wildlife sites comprise a coherent and resilient ecological network?'*

The results were damning. It indicated that, whilst most species and habitats were represented in our ecological networks, most sites of ecological interest are simply too small, and historic losses have been too great, for the remaining areas and populations to be self sustaining. Most areas of semi-natural habitat are also insufficiently protected, under-managed, and not sufficiently connected to one another to function.

The second question posed in the Lawton review was to ask:

*'if our existing networks are not sufficient, what needs to be done?'*

The answer can be summarised in four words: **more, bigger, better** and **joined**.



In many ways, these concepts are not new. We have long sought to improve the quality of existing habitats, to create new habitats and extend existing ones, and to increase their connectivity. In recent years, the focus has begun to shift away from site-based conservation and towards the landscape-scale approach. This is the step change we need.

**Landscape-scale conservation** is about building very large functioning networks of habitats, which incorporate existing high quality sites and extend, buffer and interconnect them with new habitats to produce robust ecosystems, capable of supporting natural processes as well as sustainable populations of dependent species. The approach should provide a resilient natural environment, capable of delivering **ecosystem services** and the other functions that we rely upon, whilst also supporting biodiversity. Landscape-scale conservation should also provide habitats which are resilient to climate change, which allow species to adapt to the impacts of climate change, and which provide services that protect us from the effects of climate change. Because of these benefits, it is likely that landscape-scale conservation will become an increasingly important approach to biodiversity conservation during the 2011-2020 LBAP plan period.

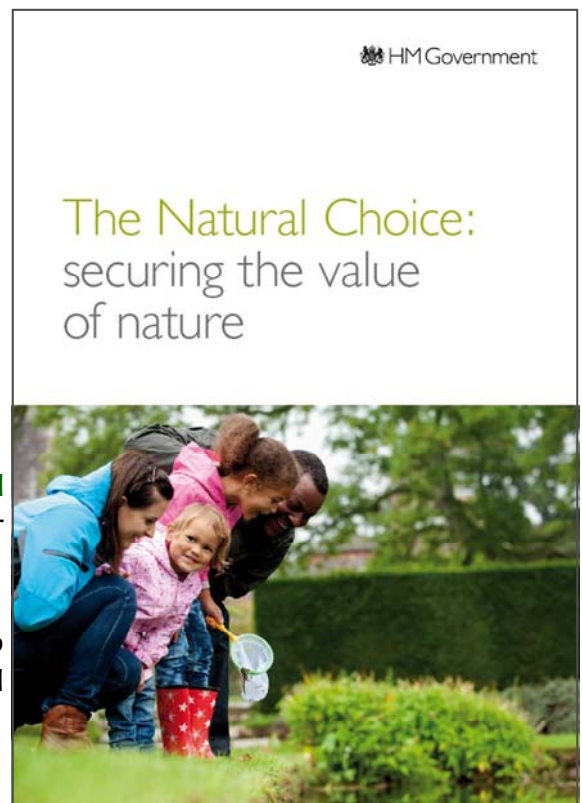
At a national level, effort and funding is already being targeted at landscape-scale delivery. In 2010, Natural England began promoting the idea of landscape-scale conservation, firstly through the identification of **IBDAs – Integrated Biodiversity Delivery Areas** - large areas of land in which species conservation with habitat management can be delivered through partnership working, integrating other environmental, social and economic agendas. Landscape-scale conservation is also being brought to the fore in the strategies of national and local bodies. Examples include the RSPB's **Futurescapes** initiative, or the Wildlife Trust's **Living Landscapes Schemes**, as well as in the preparation of funding bids for landscape-scale conservation within Derbyshire.

In June 2011, the Government launched **The Natural Environment White Paper**, 'The Natural Choice: securing the value of nature'. The White Paper outlines the Government's vision for our natural environment over the next 50 years, and it included proposals for a number of new initiatives, including:

- **Local Nature Partnerships (LNPs)** - strategic partnerships of organisations that work to create a shared vision for their area and deliver better, more integrated environmental outcomes
- **Nature Improvement Areas (NIAs)** - large, landscape scale areas (between 10-50,000 hectares) that offer opportunities to secure and enhance the benefits of the natural environment

In August 2011, Defra also launched the new **England Biodiversity Strategy** 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'.

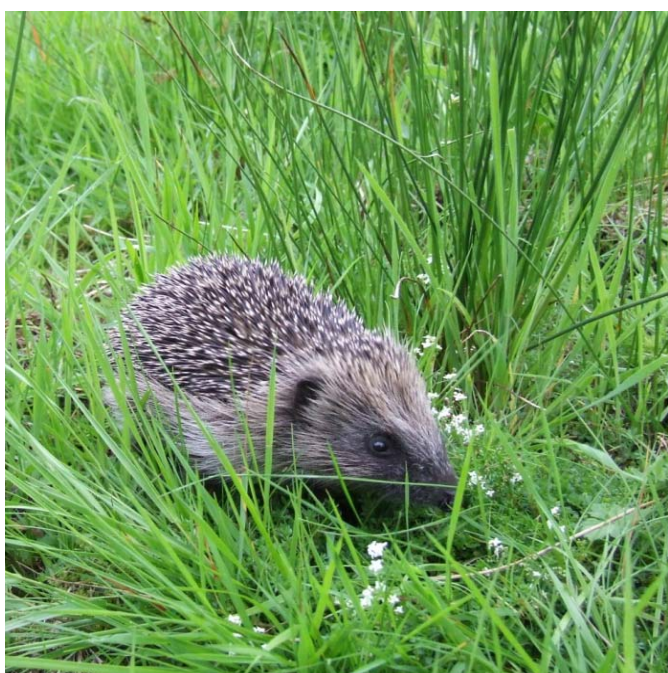
It is likely that both of these documents will be central to biodiversity delivery at both the national and local level throughout the period of this LBAP plan.



## 1.5 Our new approach to the LBAP: Landscape Character Areas

No species is uniformly distributed across the countryside. Where it is found is essentially dictated by its habitat requirements and the environmental conditions present there. But the distribution of habitats within the landscape is also far from random. It is the underlying landforms, the topography, the geology, soils, hydrology and other environmental factors present that determine the character of the landscape. The occurrence of habitats within the landscape is also defined by the patterns of human habitation and land use. Taken together, all these factors have contributed to a shaping of the semi-natural environments we see today - the so-called **'Landscape Character'**.

Biodiversity is not separate from landscape character; it is a part of it. The habitats we see in the landscape today – the woodlands, grasslands and wetlands for example – are significant elements of the landscape. What's more, the occurrence of habitats, or their historic losses from a landscape, will also have been shaped by the same human factors, such as conversion to agriculture, which have a significant influence on the landscape. Biodiversity and landscape character are intricately linked.



Hedgehog. Credit: Nikki Charlton (via PTES)

Combining the characterisation of landscape and the natural environment is not new. In 1996 the Countryside Commission (now Natural England) published the **Character Map of England**, identifying 159 **Joint Character Areas**, each one being a broad tract of countryside that displays similar landscape characteristics. In 2005 Natural England, with the support of English Heritage, updated this map to produce the **'Character of England Landscape, Wildlife and Cultural Features Map'**, which continued to subdivide England into 159 **National Character Areas (NCAs)**, on the basis of the differences in landscape character, wildlife and cultural features, all defined at the national scale. The work identified areas like the White Peak and Dark Peak, and described the landscape features that define its character and local distinctiveness.

This work was further developed locally by Derbyshire County Council, in partnership with district and borough councils. It subdivided these broad Character Areas into **'Landscape Character Types'**, such as 'Riverside Meadows' and 'Open Moors', to describe the diversity of the landscape within our county, excluding the Peak District National Park. Written descriptions for the landscape character types of Derbyshire, supported by photographs and tables, have now been published in **'The Landscape Character of Derbyshire'** document (Derbyshire County Council, 2003). This work characterised the diverse landscapes of our county into a finer, more detailed picture, more recognisable at the local level and more precisely defining the character of these areas. Most recently, the **East Midlands Landscape Partnership** has investigated landscape character at the regional level, and in April 2010, produced **The East Midlands Regional Landscape Character Assessment**.



In developing the new Lowland Derbyshire Biodiversity Action Plan, it was quickly recognised that our plan needed to reflect the emerging trends towards landscape-scale conservation. In particular, it was noted that landscape characterisation, which includes an assessment of habitats and biodiversity assets, would provide a useful tool in the development of the LBAP. As work progressed, it became apparent that much of our habitat and species data correlated very strongly with **Landscape Character Areas**, and it was decided that landscape character assessment work would be integrated into the LBAP. In particular, it was decided that within the LBAP, the county could be subdivided into different character areas, recognising the occurrence of habitats and species in those areas, and the different approaches to conservation that might be required.

The reasons for this are multiple:

- Emerging approaches in biodiversity are increasingly recognising the need to work at the landscape scale.
- Existing landscape characterisation work provides an established mechanism for dividing large areas such as counties into smaller units on the basis of their environmental character.
- Landscape character assessment includes biodiversity interests in the underlying assessment methodology, and biodiversity assets strongly correlate with landscape character types.
- Landscape character assessment methodologies are recognised and accepted nationally, and fit neatly into characterisation work completed at the national level
- Landscape character areas include a suite of habitats, which are broadly defined by the same environmental and anthropogenic influences. In effect these are functional, recognisable ecosystems.
- As the occurrence of habitats and species differs from area to area, habitat and species conservation action can be targeted at those areas in which those habitats and species are currently, or were formerly found.
- Targets can be set for each area, ensuring that conservation actions are appropriate for the environmental conditions and character of that area
- By defining geographical areas of similar environmental character, it is hoped that local conservation groups, parish councils and landowners will be better able to engage with the LBAP by joining their local area group. In turn, they will be able to liaise with, cooperate with and learn from each other, as each group will most likely be working with similar habitats and species, under similar conditions
- Many other LBAPS are also developing their new action plans on the basis of landscape characterisation; this will allow biodiversity action to extend across administrative boundaries, following more natural landscape type boundaries
- By recognising the unique environmental and biodiversity characteristics of each area, and working towards common aims for them, it will be possible to add value to each others work, producing functioning environments of interconnected habitats characteristic of that area – true landscape-scale delivery
- This approach should support funding bids, demonstrating that the actions of a group, landowner or project contribute to the specific targets for that area, and contribute to landscape-scale delivery.

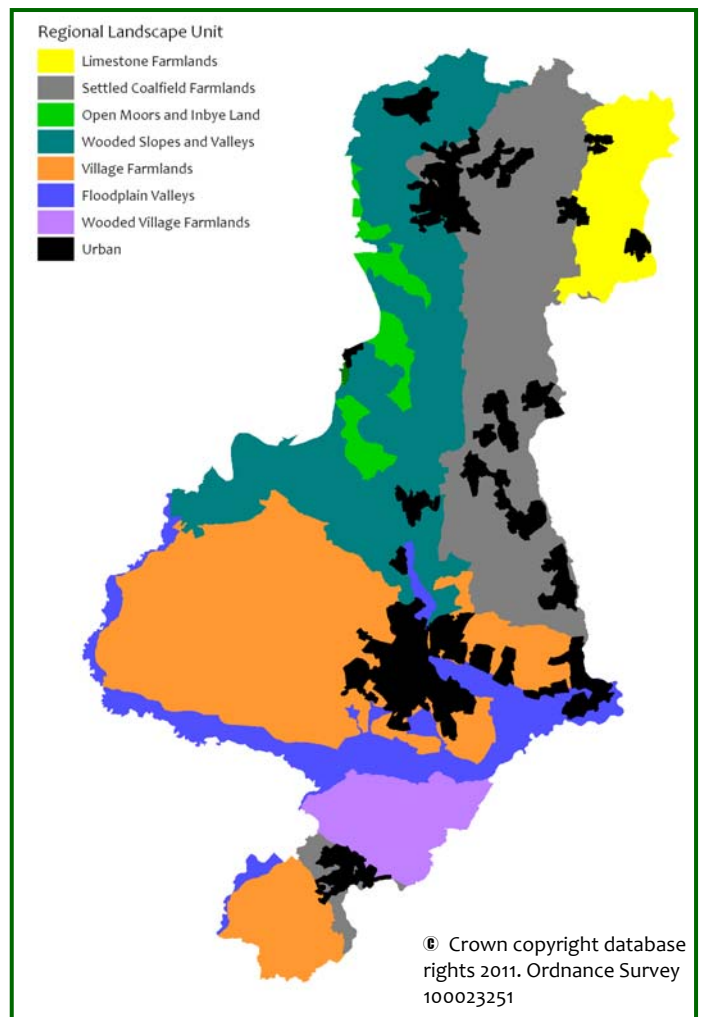
It should be recognised that the use of landscape characterisation in the development of LBAPs is not new in Derbyshire. The existing boundary between the Lowland Derbyshire and Peak District LBAPs is defined according to National Character Areas, rather than administrative boundaries.



For practical reasons, the eight **Action Areas** set out in this new Lowland Derbyshire Biodiversity Action Plan are drawn from the regional landscape characterisation work. For our purposes they function at a more suitable geographic scale. They are more detailed than national landscape types, yet less numerous than Derbyshire’s own Landscape Character Types.

The LBAP Action Areas defined here follow the regional divisions, but with three notable exceptions:

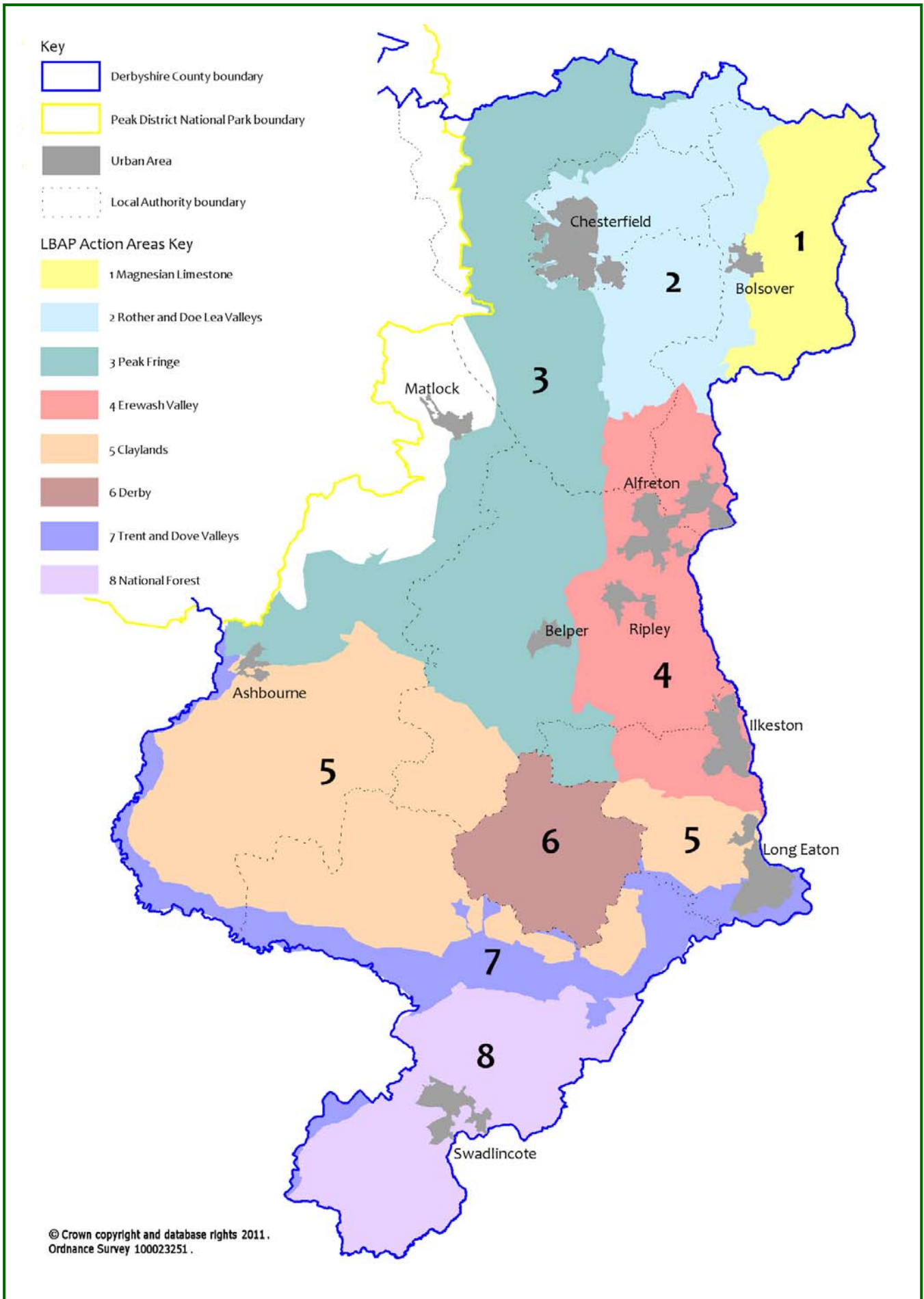
- **Derby** - Built up areas, including cities such as Derby, are excluded from landscape character assessment work, although the urban area of Derby is surrounded by four different landscape character types. As Derby city has a unitary local authority and a city-wide ‘WildDerby’ project that delivers effective biodiversity results across the area, it was logical to identify Derby as a separate Action Area that follows the city’s administrative boundary.
- The Action Areas of **Erewash Valley** and **The Rother & Doe Lea Valleys** have been created as two separate entities from one larger Regional Landscape Unit (the Settled Coalfield Farmlands), despite having very similar landscape characteristics. They have simply been divided along the watershed between the southerly-flowing Erewash and the northerly-flowing Rother and Doe Lea rivers.
- The **National Forest area** as defined here is an LBAP Action Area consisting of three small segments of three much larger and very different regional landscape units. These are the Wooded Village Farmlands, the Settled Coalfield Farmlands, and the Village Farmlands. For practical reasons they have been brought together into one Action Area here. Note, also, that the National Forest Development Agency does have its own operations-wide biodiversity action plan, and that that their plan cuts across a much larger area, covering Staffordshire, Derbyshire and Leicestershire.



True distribution of the Regional Landscape Units in Lowland Derbyshire which have since been simplified into eight Action Areas for use in this LBAP document.

The Action Areas defined in this LBAP are shown in Figure 2.





**Figure 2: LBAP Action Areas**



## 2. Structure of the revised LBAP

This revised LBAP is composed of a number of sections. Each section should be read within the context of the whole document. Please see the **Contents Page** and the **Quick Start Guide** for a simple overview of its layout and content.

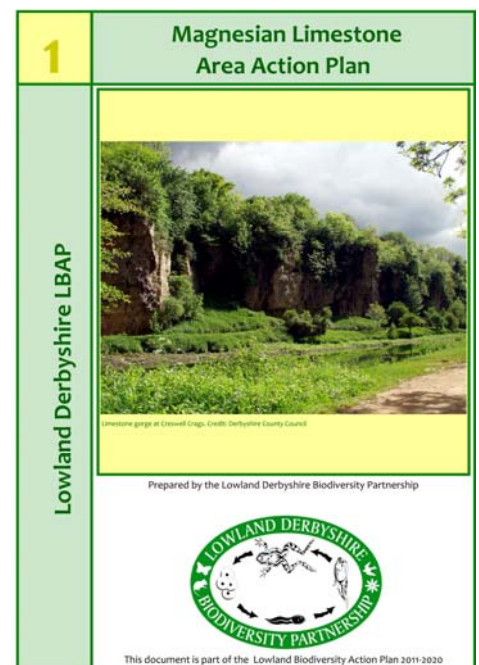
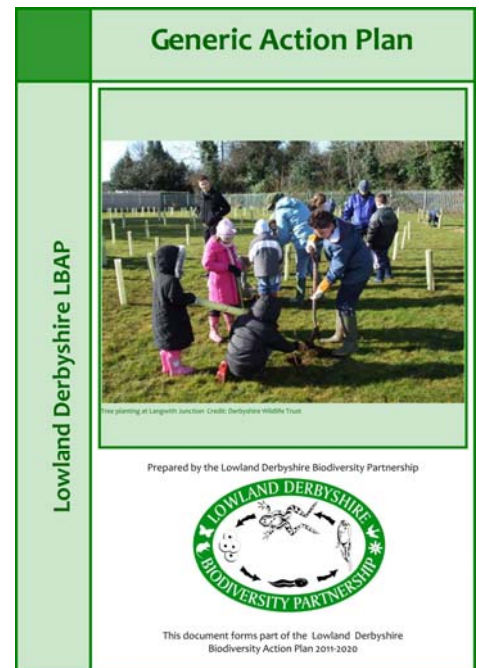
**Generic Action Plan.** This section contains a number of key actions which partners can carry out irrespective of habitat, species or location. These are tasks such as surveying, monitoring, promotion, public engagement and invasive species control etc. These were previously included in separate habitats and species action plans. They are now combined into one single **Generic Action Plan**.

**Action Areas.** Each of the eight **Action Areas** shown on Figure 2 has its own action plan. These include specific targets to guide delivery within it. Also included is a list of partners that work in that area, as well as information on the current challenges and opportunities, including existing or future biodiversity projects likely to be running during the Plan Period to 2020. Each area plan also includes information on the known biodiversity resource available, plus statistics showing progress towards delivering targets. These may get modified as more local data becomes available, the Derbyshire Biodiversity website should always be checked for the most up-to-date version of any document. Recent mapping work to review achievements of the previous 2005-2010 plan period has enabled us to plot all known Priority Habitats in great detail. This data has been used to calculate the area's statistics given within in each plan and to plot habitats onto **Detailed Maps**.

A single **Cumulative Target** table summarises all habitat actions across all Action Areas .

Much is known about the issues associated with, and the distribution of, UK Priority Habitats in Derbyshire. This data can be found in the individual habitat **Background Information** documents.

**Species Action Plan** documents will be prepared from 2012 to provide more guidance on local trends and distribution for Priority Species, as well as a number of actions to aid their conservation.





All updates to these documents will be done online. Please refer to the Derbyshire Biodiversity website to ensure you are using the most up-to-date documents.

See Appendix 1 and 2 in this Introduction for tables of UK Priority Habitats and Species recorded in the LBAP area .

| Section  | Contents   | Frequency of review                        |
|--|--|--|
| <b>Introduction</b>                                | LBAP overview  | Unlikely to be reviewed in plan period     |
| <b>Generic Action Plan</b>                         | Actions applying to the entire LBAP area   | May have a mid-term review in 2015         |
| <b>Overview of LBAP Targets</b>                    | Summary of all targets   | May have a mid-term review in 2015         |
| <b>Area Action Plans (8 in total one per area)</b> | Area Action Plan, map, background Information, targets and achievements.           | Achievements updated annually.             |
| <b>Priority Habitat Background Information</b>     | Further information for reference  | Only if new information becomes available. |
| <b>Species Documents and associated actions</b>    | Action plans for individual species. (Available online from 2012)                  | Species plans to be added piecemeal.       |
| <b>List of LBAP Partners</b>                       | Partners signed up to the LBAP and agreeing to take part in partnership activities | Whenever main list of partners is updated  |

## 2.1 Monitoring

It is hoped this new LBAP structure will enable partners to record their work more easily , report on their activities and to feed back to their area group on the work they have done. Just as before, it is envisaged that the Lowland Derbyshire Biodiversity Project Officer post will coordinate reporting, collecting and collating data, monitoring progress against targets and providing performance data to the UK Biodiversity Action Plan through **'BARS'**, the **Biodiversity Action Reporting System**.

Biodiversity delivery will be recorded spatially on a digital mapping system by the Biodiversity Project Officer and the Local Record Centre Partnership. This allows achievements and opportunities to be viewed at a landscape scale. Each of the area action plans ends with an **'Achievements to Date'** page which will be updated annually and will monitor the progress towards all area targets. To do this we need clear feedback from all partners in order to accurately monitor and report on our achievements and combined efforts.



## 2.2 Who is involved?

The Lowland Derbyshire Biodiversity Partnership is a broad partnership, currently made up of almost 100 organisations from the private, public and voluntary sectors who have agreed to work together to deliver the aims of the Lowland Derbyshire Biodiversity Action Plan.

Partner organisations include statutory bodies, local authorities, voluntary organisations, parish councils, community groups and other groups and organisations. The work of the partnership is coordinated and supported by a Project Officer post, hosted by Derbyshire County Council. The work of the partnership has been financially supported by Natural England, Derbyshire County Council, the partner District and Borough councils, Derby City Council, the Environment Agency and the Forestry Commission.

A list of **current partners** is provided at the end of this LBAP. Approaches from newly-created community action groups and from Parish Councils keen to support the work of the LBAP are particularly welcome.

| Lowland Derbyshire Biodiversity Partnership   |  |  |
|---|--|--|
| The Lowland Derbyshire BAP is supported and delivered by a partnership of many organisations. Some are statutory agencies, some are local authorities, whilst many more are non-governmental organisations - charities, voluntary groups and local societies. |  |  |
| We always welcome new additions to the Partnership from any organisation able to deliver action for biodiversity in our region. In particular we invite all Parish Councils to join us to express support for our work.                                       |  |  |
| For more information, contact the Lowland Derbyshire LBAP Officer via the Derbyshire Biodiversity website at <a href="http://www.derbyshirebiodiversity.org.uk">www.derbyshirebiodiversity.org.uk</a> or ring 01629 539771                                    |  |  |
| Lowland Derbyshire LBAP   | <b>Statutory Agencies</b><br>Environment Agency<br>Natural England   | Forestry Commission<br>Highways Agency   |
|   | <b>Local Authorities</b><br>Amber Valley Borough Council<br>Chesterfield Borough Council<br>Derbyshire County Council<br>Erewash Borough Council<br>South Derbyshire District Council        | Bolsover District Council<br>Derby City Council<br>Derbyshire Dales District Council<br>North East Derbyshire District Council         |
|   | <b>Voluntary Organisations</b><br>BTCV<br>Farming and Wildlife Advisory Group<br>Groundwork Derby and Derbyshire<br>RSPB<br>Woodland Trust   | Derbyshire Wildlife Trust<br>Groundwork Creswell, Ashfield and Mansfield<br>National Trust<br>Small Woods Association                  |
|   | <b>Other Organisations</b><br>Bolsover Countryside Partnership<br>Countryside Landowners Association<br>Environmental Education Project<br>Meynell Langley Estate<br>National Forest Company | British Waterways<br>Derbyshire Constabulary<br>East Midlands Biodiversity Partnership<br>National Farmers Union<br>Severn Trent Water |
|   | <b>Local &amp; Community Groups</b><br>Antony Gell School Foundation<br>Darley and Nutwood Nature Reserve<br>Management Group<br>Derbyshire Alternative Technology Association (DATA)        | Denby Footpaths Group<br>Derby Pond Warden Association<br>Derby & Sandiacre Canal Trust<br>Derbyshire Amphibian and Reptile Group      |

[www.derbyshirebiodiversity.org.uk](http://www.derbyshirebiodiversity.org.uk)

## 2.3 How it works

The Derbyshire Biodiversity Partnership is managed by an Executive Steering Group and a Steering Group, both of which meet twice a year. They receive progress reports and updates from the Biodiversity Project Officer post and determine future targets for work.

It is envisaged that each of the eight Action Areas will meet as separate area groups, although at the time of publication the precise mechanism for this has yet to be determined. We hope to continue with annual conferences, producing regular newsletters and developing new ways of communicating both within and beyond the existing Lowland Derbyshire Biodiversity Partnership.



Toothwort in Darley Park, Derby.  
Credit Nick Moyes



Fungal foray display.  
Credit: Debbie Alston



### 3. References

**Bird W (2007)** *Natural Thinking: Investigating The Links Between The Natural Environment, Biodiversity And Mental Health*. RSPB - [http://www.rspb.org.uk/Images/naturalthinking\\_tcm9-161856.pdf](http://www.rspb.org.uk/Images/naturalthinking_tcm9-161856.pdf)

**Derbyshire County Council (2003)** *The Landscape Character of Derbyshire*  
[www.derbyshire.gov.uk/landscape](http://www.derbyshire.gov.uk/landscape)

**East Midlands Regional Landscape Partnership (2010)** *The East Midlands Regional Landscape Character Assessment*. Natural England.  
[http://www.naturalengland.org.uk/regions/east\\_midlands/ourwork/characterassessment.aspx](http://www.naturalengland.org.uk/regions/east_midlands/ourwork/characterassessment.aspx)

**England Biodiversity Partnership (2002)** *Working With The Grain Of Nature: A Biodiversity Strategy For England* [http://www.ukbap.org.uk/EBG/england\\_biodiversity\\_strategy.asp](http://www.ukbap.org.uk/EBG/england_biodiversity_strategy.asp)

**European Commission (2006)** *Communication From The Commission Halting The Loss Of Biodiversity By 2010—And Beyond*, 216  
[http://ec.europa.eu/development/icenter/repository/com2006\\_0216en01\\_en.pdf](http://ec.europa.eu/development/icenter/repository/com2006_0216en01_en.pdf)

**GHK Consulting and GFA-Race (2004)** *Revealing the Value of the Natural Environment in England*. Report for Defra. [http://hm-treasury.gov.uk/d/2\(1\).pdf](http://hm-treasury.gov.uk/d/2(1).pdf)

**Lawton, J. Brotherton, P. et al (2010)** *Making Space for Nature: a review of England's wildlife sites and ecological network*. Report to Defra.—<http://www.defra.gov.uk/news/2010/09/24/nature-news/>

**Natural England (2010a)** *Natural England SSSI condition data, November 2010*  
<http://www.sssi.naturalengland.org.uk/Special/sssi/reportIndex.cfm>

**Natural England (2010b)** *NE233 - Lost life: England's lost and threatened species*  
<http://naturalengland.etraderstores.com/NaturalEnglandShop/NE233>

**Natural Environment White Paper (2011)** *The Natural Choice: securing the value of nature*. The Stationery Office. <http://www.official-documents.gov.uk/document/cm80/8082/8082.asp>

**TEEB (2010)** *Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB (The Economics of Ecosystems and Biodiversity)*  
<http://www.teebweb.org/TEEBSynthesisReport/tabid/29410/Default.aspx>

**UK Biodiversity Partnership (2010)** *Main Results of the 2008 UK Biodiversity Action Plan Reporting Round*, Published by JNCC on behalf of the UK Biodiversity Partnership -  
[http://www.jncc.gov.uk/pdf/pub2010\\_UKBAPHighlightsReport2008.pdf](http://www.jncc.gov.uk/pdf/pub2010_UKBAPHighlightsReport2008.pdf)

**UK National Ecosystems Assessment (2011)** *The UK National Ecosystems Assessment: Synthesis of the Key Findings*, UNEP-WCMC, Cambridge. <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>



## Appendix 1: UK Priority Habitats in the LBAP Area

Table 1 shows which UK Priority Habitats which have been recorded in the Lowland Derbyshire Biodiversity Action Plan region and in which of the eight Action Areas they occur.

- |   |                                   |
|---|-----------------------------------|
| 1) ML—Magnesian Limestone area              | 5) CL—Claylands area              |
| 2) RD—River Rother and Doe Lea Valleys area | 6) DE—Derby area                  |
| 3) PF—Peak Fringe area                      | 7) TD—Trent and Dove Valleys area |
| 4) EV—Erewash Valley area                   | 8) NF—National Forest area        |

**Table 1: UK Priority Habitats in the LBAP area.**

√√√ - Primary      √√ - Secondary      √ - Localised

| Priority habitat                                  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|
|   | ML  | RD  | PF  | EV  | CL  | DE  | TD  | NF  |
| Arable Field margins                              | √√√ | √√  | √   | √√  | √√  | √   | √√√ | √√  |
| Calaminarian grassland                            |     |     | √   |     |     |     |     |     |
| Coastal and Floodplain grazing marsh              | √   | √√√ | √√√ | √√√ | √√  | √√√ | √√√ | √√  |
| Hedgerows   | √√√ | √√√ | √√√ | √√√ | √√√ | √√  | √√  | √√√ |
| Inland Rock outcrop and scree habitats            | √   |     | √   |     | √   |     |     | √   |
| Lowland calcareous grassland                      | √√√ | √   | √   | √   |     | √   |     | √   |
| Lowland mixed deciduous woodland                  | √√√ | √√√ | √√√ | √√√ | √√  | √√√ | √√  | √√√ |
| Lowland dry acid grassland                        | √   | √   | √√√ | √   | √√  | √   | √   | √√  |
| Lowland Fens                                      |     | √   | √   |     | √   |     |     |     |
| Lowland heathlands                                |     | √   | √√  | √   | √   |     |     | √   |
| Lowland meadows                                   | √√  | √√√ | √√√ | √√√ | √√√ | √√  | √√√ | √√√ |
| Mesotrophic lakes                                 | √√  | √√√ | √√  | √√√ | √√  | √   | √√√ | √√√ |
| Open mosaic habitats on previously developed land | √   | √   | √   | √   | √   | √   | √   | √   |
| Ponds   | √√  | √√√ | √√  | √√√ | √√√ | √√√ | √√√ | √√√ |
| Reedbeds  |     | √√  | √   | √√  |     |     | √√√ | √   |
| Rivers  | √   | √√√ | √√√ | √√√ | √   | √√√ | √√√ | √√  |
| Traditional Orchards                              | √   | √   | √   | √   | √   | √   | √   | √   |
| Wet woodland                                      | √   | √√√ | √   | √√√ | √√  | √√  | √√√ | √√√ |
| Wood pasture & Parkland (including Veteran Trees) | √√  | √   | √√  | √√  | √√√ | √√√ | √   | √√√ |



## Appendix 2: UK Priority Species in the LBAP Area

Tables 2-8 show the UK priority species which have been recorded in the Lowland Derbyshire Biodiversity Action Plan area since 2000 and in which Action Areas they can be found. (This is based upon the best information available to date, and is liable to being updated)

- |   |                                   |
|---|-----------------------------------|
| 1) ML—Magnesian Limestone area              | 5) CL—Claylands area              |
| 2) RD—River Rother and Doe Lea Valleys area | 6) DE—Derby area                  |
| 3) PF—Peak Fringe area                      | 7) TD—Trent and Dove Valleys area |
| 4) EV—Erewash Valley area                   | 8) NF—National Forest area        |

√ - recorded in the area      (√) - unconfirmed

**Table 2: UK Priority Bryophyte, Fungus and Vascular Plant Species recorded in this LBAP area.**

| Type            | English Name           | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|-----------------|------------------------|----|----|----|----|----|----|----|----|
|                 |                        | ML | RD | PF | EV | CL | DE | TD | NF |
| Mosses          | Sausage-beard moss     |    |    | √  |    |    |    |    |    |
|                 | Flamingo moss          | √  |    |    |    |    |    |    |    |
| Fungi           | Oak polypore           |    |    |    |    | √  |    |    | √  |
| Vascular Plants | Grass-wrack Pondweed   |    |    |    | √  |    |    |    |    |
|                 | Tubular Water Dropwort |    |    |    | √  |    |    | √  |    |

**Table 3: UK Priority Amphibian and Reptile Species recorded in this LBAP area.**

| Type       | English Name       | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|------------|--------------------|----|----|----|----|----|----|----|----|
|            |                    | ML | RD | PF | EV | CL | DE | TD | NF |
| Amphibians | Great crested newt | √  | √  | √  | √  | √  | √  | √  | √  |
|            | Common toad        | √  | √  | √  | √  | √  | √  | √  | √  |
| Reptiles   | Adder              |    |    | √  |    |    |    |    | √  |
|            | Common lizard      | √  | √  | √  | √  | √  | √  | √  | √  |
|            | Grass snake        | √  | √  | √  | √  | √  | √  | √  | √  |
|            | Slow worm          | √  | √  | √  | √  | √  | √  | √  | √  |

**Table 4: UK Priority Fish Species recorded in this LBAP area.**

| Type | English Name    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|------|-----------------|----|----|----|----|----|----|----|----|
|      |                 | ML | RD | PF | EV | CL | DE | TD | NF |
| Fish | Atlantic Salmon |    |    | √  |    |    |    | √  |    |
|      | Brown trout     |    |    | √  |    | √  |    | √  |    |
|      | Eel             |    | √  | √  |    | √  |    | √  |    |



**Table 5: UK Priority Bird Species recorded in this LBAP area (not necessarily breeding)**

| Type               | English Name              | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|--------------------|---------------------------|----|----|----|----|----|----|----|----|
|                    |                           | ML | RD | PF | EV | CL | DE | TD | NF |
| Birds              | Bullfinch                 | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Corn bunting <sup>1</sup> | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                    | Cuckoo <sup>2</sup>       | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                    | Curlew                    | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                    | Dunnock                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Grasshopper warbler       | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                    | Grey partridge            | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Hawfinch                  |    | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                    | Herring Gull <sup>3</sup> | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | House sparrow             | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Lapwing                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Lesser Redpoll            | ✓  | ✓  | ✓  |    | ✓  |    | ✓  | ✓  |
|                    | Lesser spotted woodpecker | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Linnet                    | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Marsh tit                 | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Reed bunting              | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Skylark                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Song thrush               | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Spotted flycatcher        | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Starling                  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Tree pipit                | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Tree sparrow              | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                    | Turtle dove               | ✓  | ✓  | ✓  | ✓  | ✓  |    | ✓  | ✓  |
| Twite <sup>4</sup> | ✓                         |    | ✓  | ✓  |    |    | ✓  |    |    |
| Willow tit         | ✓                         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    |
| Wood Warbler       |                           | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    |
| Yellowhammer       | ✓                         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    |
| Yellow wagtail     | ✓                         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    |

<sup>1</sup> Corn bunting: now an infrequent breeder

<sup>2</sup> Cuckoo: declining breeder

<sup>3</sup> Herring Gull: not breeding

<sup>4</sup> Twite: only breeds in Peak LBAP area.



**Table 6: UK Priority Mammal Species recorded in this LBAP area.**

| Type    | English Name         | 1  | 2  | 3   | 4  | 5  | 6  | 7  | 8  |
|---------|----------------------|----|----|-----|----|----|----|----|----|
|         |                      | ML | RD | PF  | EV | CL | DE | TD | NF |
| Mammals | Brown hare           | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Brown long-eared bat | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Dormouse             |    |    | √   |    |    |    |    |    |
|         | Harvest mouse        | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Hedgehog             | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Noctule              | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Otter                |    |    | √   |    | √  | √  | √  | √  |
|         | Pine martin          |    |    | (√) |    |    |    |    |    |
|         | Polecat              |    | √  | √   | √  | √  | √  | √  | √  |
|         | Soprano pipistrelle  | √  | √  | √   | √  | √  | √  | √  | √  |
|         | Water vole           | √  | √  | √   | √  | √  | √  | √  | √  |

**Table 7: UK Priority Invertebrates (other than moths) Species recorded in the LBAP area.**

| Type        | English Name            | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|-------------|-------------------------|----|----|----|----|----|----|----|----|
|             |                         | ML | RD | PF | EV | CL | DE | TD | NF |
| Ants        | Shining guest ant       |    |    | √  |    |    |    |    |    |
| Beetles     | Necklace ground beetle  |    |    | √  |    |    |    |    |    |
| Butterflies | Dingy skipper           | √  | √  | √  | √  | √  |    |    | √  |
|             | Grizzled skipper        | √  |    |    |    |    |    |    | √  |
|             | Small heath             | √  | √  | √  | √  |    |    | √  | √  |
|             | Wall                    | √  | √  | √  | √  | √  |    | √  | √  |
|             | White admiral           |    |    |    |    |    |    |    | √  |
|             | White letter hairstreak | √  | √  | √  | √  | √  | √  | √  | √  |
| Crustaceans | White-clawed crayfish   |    | √  | √  | √  | √  | √  |    | √  |



**Table 8: UK Priority Moths Species recorded in this LBAP area.**

| Type                | English Name                 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|---------------------|------------------------------|----|----|----|----|----|----|----|----|
|                     |                              | ML | RD | PF | EV | CL | DE | TD | NF |
| Moths               | Argent and sable             |    |    | ✓  |    |    |    |    | ✓  |
|                     | August thorn                 |    | ✓  |    |    | ✓  |    |    |    |
|                     | Autumnal rustic              |    | ✓  |    | ✓  |    |    | ✓  | ✓  |
|                     | Beaded chestnut              | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Blood-vein                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Brindled beauty              | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Broom moth                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    | ✓  |
|                     | Brown-spot pinion            | ✓  | ✓  | ✓  | ✓  |    |    | ✓  | ✓  |
|                     | Buff ermine                  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Centre-barred sallow         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Dark spinach                 |    |    |    |    |    | ✓  | ✓  |    |
|                     | Dark-barred twin-spot carpet |    |    |    | ✓  |    |    | ✓  |    |
|                     | Deep-brown dart              | ✓  |    |    | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Dot moth                     | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Double dart                  |    |    | ✓  |    |    |    | ✓  | ✓  |
|                     | Dusky brocade                | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Dusky thorn                  |    | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Dusky-lemon sallow           |    | ✓  |    |    |    |    | ✓  | ✓  |
|                     | Ear moth                     |    |    | ✓  |    |    |    |    |    |
|                     | Feathered gothic             |    | ✓  | ✓  |    |    |    | ✓  |    |
|                     | Figure of eight              |    | ✓  | ✓  | ✓  |    |    |    |    |
|                     | Flounced chestnut            |    | ✓  | ✓  |    |    |    |    | ✓  |
|                     | Forester                     |    |    | ✓  |    |    |    |    |    |
|                     | Garden dart                  |    | ✓  |    | ✓  |    | ✓  | ✓  | ✓  |
|                     | Garden tiger                 | ✓  | ✓  | ✓  |    | ✓  |    | ✓  | ✓  |
|                     | Ghost moth                   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Grass rivulet                | ✓  |    | ✓  |    |    |    |    |    |
|                     | Green-brindled crescent      | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                     | Grey dagger                  | ✓  |    | ✓  |    | ✓  | ✓  | ✓  | ✓  |
|                     | Heath rustic                 |    | ✓  |    |    |    |    |    |    |
|                     | Knot grass                   | ✓  | ✓  | ✓  | ✓  |    |    |    | ✓  |
|                     | Large nutmeg                 |    |    |    |    |    |    | ✓  |    |
|                     | Latticed heath               | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Minor shoulder-knot |                              | ✓  |    |    |    | ✓  | ✓  |    |    |
| Mottled rustic      |                              | ✓  | ✓  |    |    | ✓  | ✓  | ✓  |    |





Table 8 (cont.): UK Priority Moths Species recorded in this LBAP area.

| Type                 | English Name              | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
|----------------------|---------------------------|----|----|----|----|----|----|----|----|
|                      |                           | ML | RD | PF | EV | CL | DE | TD | NF |
| Moths                | Mouse moth                | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | Oak hook-tip              | ✓  | ✓  |    | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | Oblique carpet            |    |    |    |    | ✓  |    |    |    |
|                      | Pale eggar                |    |    |    |    |    |    | ✓  | ✓  |
|                      | Powdered quaker           | ✓  | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  |
|                      | Pretty chalk carpet       |    |    |    |    |    |    |    | ✓  |
|                      | Rosy minor                | ✓  | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  |
|                      | Rosy rustic               | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | September thorn           |    |    | ✓  |    | ✓  |    |    |    |
|                      | Shaded broad-bar          | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | Shoulder-striped wainscot | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | Small emerald             |    |    |    | ✓  |    | ✓  | ✓  | ✓  |
|                      | Small phoenix             | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | Small square-spot         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | The cinnabar              | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | The crescent              |    |    |    |    |    |    | ✓  | ✓  |
|                      | The rustic                | ✓  |    | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|                      | The sallow                | ✓  | ✓  | ✓  | ✓  |    | ✓  | ✓  | ✓  |
|                      | The spinach               | ✓  |    | ✓  | ✓  |    | ✓  | ✓  | ✓  |
|                      | The sprawler              |    |    |    | ✓  |    |    |    |    |
| The streak           | ✓                         |    |    | ✓  |    |    |    |    |    |
| White ermine         | ✓                         | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |    |
| White-spotted pinion |                           |    |    |    |    |    |    | ✓  |    |

