

What is biodiversity?

Biodiversity is the word we use to describe the wealth of life that exists on earth. Think about 'Bio' from biology - all the animals, plants, fungi, bacteria, habitats and natural parts of the environment. 'Diversity' - the variety, range and quantities. So biodiversity is the variety, or richness of wildlife and habitats in any given place such as a country park, woodland, a county or even an entire country. Places that are rich in wildlife, are sometimes said to be 'biodiverse'.



Why is biodiversity important?

Biodiversity is important to all of us, and valuable for so many reasons:

- **Appreciation and Quality of Life:** Many people simply value the chance to see wildlife, or experience 'wild' places. Contact with nature gives us all a sense of well-being. It helps us relax, deal with stress and improves our mental and physical health.
- **Outdoor recreation and tourism:** Biodiverse environments are often very attractive places. People want to visit them for relaxation, study, exercise or even adventure.
- **Local distinctiveness:** Each area has its own unique combination of geology, soils, land shape, habitats and species. That mixture creates local character, provides a sense of local identity, distinctiveness and sense of place. This is particularly noticeable in Derbyshire, which has many contrasting types of landscapes, each with their own character.
- **Ecosystem Services:** These are the essential services that underpin all life on earth. You probably don't even think about them. They can only be provided by a rich biodiversity within our eco-systems. For example: clean air to breathe and water to drink, removing pollution and contaminants, treating waste, regulating our climate, protecting us from flooding, pollinating our crops, and acting as a carbon sink (in the case of woodlands and peat bogs). We can put an economic value on most of these natural services. Just imagine how much it would cost us to provide them if our environment didn't do it for us for free!
- **Essential materials and products:** The food, crops, medicines, building materials and other products we use all need a healthy, stable environment to grow in.
- **Economic value** - as well as bringing in money through tourism, biodiversity has a far more significant economic element including agriculture, fisheries, forestry, food, nature conservation.
- **Ethical value** - many would argue that we share our planet and should not allow any species of plant or animal to become extinct because of our actions.
- **Sustainable development** - the idea that we have a moral duty to pass on a healthy, functioning natural environment to future generations.



What is a Biodiversity Action Plan?

A Biodiversity Action Plan (or BAP) identifies what important species and habitats there are in a given area. It highlights what does (or should) occur there naturally, and it describes the main actions and measurable targets needed to protect and enhance its key biodiversity for the future.

Where do Biodiversity Action Plans come from?

Biodiversity Action Plans have a direct link to International commitments.

International: - The 'Rio' or 'Earth' Summit

In 1992 a United Nations conference was held in Brazil. 159 governments signed the **Convention on Biological Diversity**. It was a legally-binding agreement that obliged countries to create and enforce national strategies to conserve, protect and enhance biological diversity. It has now been ratified by all 192 UN Member States (except for Andorra and the USA!).

National: The 'UK Biodiversity Action Plan' (UKBAP)

1994 - the government responded by publishing the UKBAP. This included action plans and targets for a list of 45 habitats and 391 species, chosen because they were either globally threatened or known to be rapidly declining in the UK. The list was revised in 2007 and now includes 65 "priority habitats" and 1,149 "priority species". 2002 - The England Biodiversity Strategy was published to implement the UKBAP aims at a country level, with separate strategies for Scotland and Wales. It was updated in 2011.

Local: Local Biodiversity Action Plans (LBAPs)

These are more detailed plans that deliver our international and national commitments and actions at a local level. They draw together land owners, land managers, local authorities, partnerships, conservation charities and organisations. Two LBAPs now cover Derbyshire - one for the **Peak District** area and one for the rest of **Lowland Derbyshire**. Only habitats that meet the national UK BAP definitions of 'priority habitats' or 'priority species' are included in the targets for the LBAP. So remember, there are still many other locally threatened and declining species which need people's help. Almost anyone can help protect these.



Rio de Janeiro
Credit: Marciofleury



Cinnabar Moth caterpillar.



Fungal foray display.
Credit: Debbie Alston



Bird watching in Derby. Credit: Nick Moyes



Hedgehog. Credit: Nikki Charlton (via PTE5)

How does the Lowland Derbyshire BAP work?

The Lowland Derbyshire Biodiversity Action Plan covers a period from 2011 to 2020. Around 90 partner organisations helped shape it and all agreed on the detailed actions and measurable targets needed to try to halt the continued losses of wildlife and habitats in Lowland Derbyshire.

Its contents are split into the following sections:

- 1) **Introduction:** Maps and the background story to biodiversity action plans in Derbyshire.
- 2) **Generic Action Plan:** Sixteen short actions that need doing, no matter what part of Lowland Derbyshire you are in. This includes things like surveying, monitoring, site protection, engaging the public, controlling invasive species and so on.
- 3) **Action Areas:** Lowland Derbyshire is split into eight 'Action Areas', based on the character of their local landscapes. Each has its own action plan and ten-year targets, covering every one of the Priority Habitats found there. It includes a summary showing the progress in meeting those targets. This achievements page will be regularly updated online.
- 4) **Cumulative Target Table:** This summarises all the habitat actions right across the region.
- 5) **Habitat Background Information:** Lots of maps, descriptions and information about all the UK Priority Habitats occurring in Lowland Derbyshire. It also lists many other locally important species found within them, and is a helpful background guide
- 6) **Species Action Plans:** These will be available online from 2012. They will give detailed guidance on the local distribution and habitat needs relating to selected Priority Species. Actions and targets will be set out for each species to focus attention on their conservation.
- 7) **Detailed maps:** big maps to show where the most important Priority Habitats occur within each Action Area. (also available online)

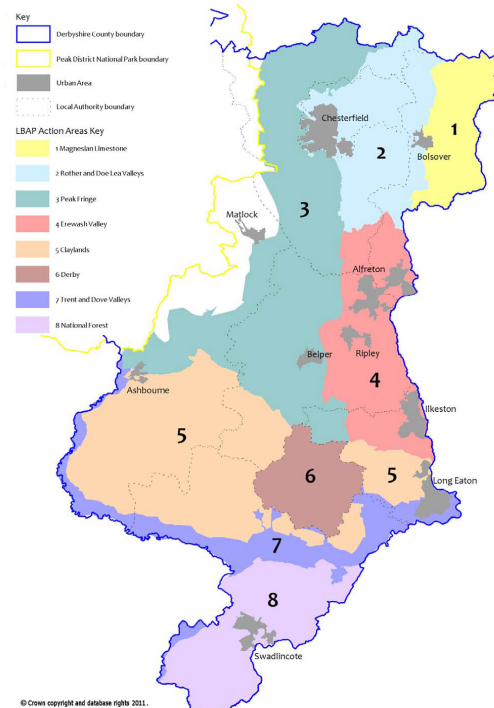
Download the LBAP and maps from www.derbyshirebiodiversity.org.uk

What are the Lowland Derbyshire BAP 'Action Areas'

Action Areas are eight sub-divisions of Lowland Derbyshire which are all distinct from each other. Where plants and animals are found is dictated by their habitat needs and the environmental conditions found at any given place. These are influenced by the underlying rocks, topography, soils, water and other environmental factors that determine the character of the landscape, which also includes how humans use or affect the land. If you take all of these factors together they shape the semi-natural environments around us, creating areas which share the same 'Landscape Character'.

There are eight Action Areas in Lowland Derbyshire, all with their own distinctive and special landscape character and biodiversity. See map opposite.

- 1) Magnesian Limestone
- 2) Rother and Doe Lea Valleys
- 3) Peak Fringe
- 4) Erewash Valley
- 5) Claylands
- 6) Derby area
- 7) Trent and Dove Valleys area
- 8) National Forest area



What are the main things the Lowland Derbyshire BAP aims to do?

The purpose of the Biodiversity Action Plan is to steer people and organisations towards doing the most important work to improve the amount and richness of wildlife in Lowland Derbyshire.

Open up the BAP document and you'll see each Action Area has a description, a vision, and lots of figures showing exactly how much biodiversity resource still exists there today. It also lists the known conservation projects operating at the time the BAP was published in 2011.

But most importantly it includes **Key Actions** and **Key Targets**. These are simple, measurable tasks to improve the amount and quality of habitats and species. It suggests who should do each bit of work - from councils, land-owners and conservation groups, right through to schools, farmers and individuals. It can also be used to support applications for grant-funding for conservation projects, or to guide developers who need to demonstrate what the impacts of their proposals might be.

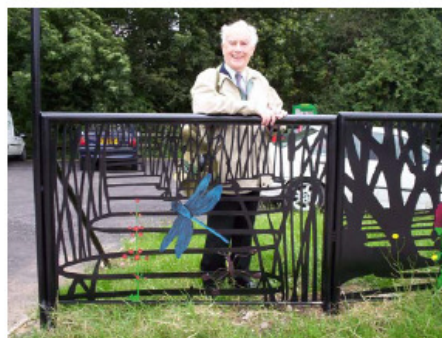
What can I do to contribute to the Lowland Derbyshire BAP?

Anyone can get involved in the Lowland Derbyshire LBAP whatever your age, area of interest or level of knowledge. You don't have to focus on rare or vulnerable species; everything is important.

- Make your own garden more friendly for wildlife and more biodiverse. Planting trees, having a wild wildlife area or a pond, fix a bird or bat box, provide routeways and homes for hedgehogs.
- Take part in wildlife surveys in your local area and feed the information back to us. See 'contact us' or visit our website at www.derbyshirebiodiversity.org.uk
- Work with others to make local 'green spaces' more biodiverse - such as school grounds, community gardens, local parks.
- Find out what Action Area you are in, join one of the partner organisations in your area and contribute to other parts of the Biodiversity Action Plan.
- Ask your local parish council to sign up to support the BAP (if they aren't already)
- Get involved in practical conservation activities (Conservation Volunteers/Wildlife Trust)



Surveying aquatic life in ponds.
Credit: Groundwork Derby and Derbyshire



Interpretation at Forbes Hole LNR.
Credit: Groundwork Derby and Derbyshire



Introducing people to Peregrine Falcons at Derby Cathedral.
Credit: Derbyshire Wildlife Trust

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LOWLAND DERBYSHIRE LOCAL BIODIVERSITY ACTION PLAN (LBAP) LEARNING AND EDUCATION

How can I use the Lowland Derbyshire BAP to enhance learning and education?

There are lots of wonderful opportunities for schools and young people's groups to link in to many areas of the National Curriculum, and for all age ranges. Here are just a few ideas:

- Work out which Action Area your school is in and develop a Biodiversity Action Plan for your own grounds in line with the key Actions for your area. Or work with a local landowner or land manager to devise a BAP for a greenspace near to your school.
- **Science** - surveying and monitoring what's in your grounds and local environment
- **Geography** - learning about sustainable development, biodiversity, conservation or mapping species distribution and other environmental factors.
- **Mathematics** - using survey and monitoring data or statistics to learn about biodiversity
- **English / Literacy** - writing or gathering information to raise awareness through newsletters, events, letters etc. How would you persuade your teachers to improve the school's biodiversity?
- **Design Technology** - designing and building wildlife features in your school grounds. Examples might include: building a bird or bat box, hedgehog home, bird feeder or table, constructing a mini-beast hotel, toad hibernacula, making a pond, planting a meadow, or re-designing your grounds and outdoor spaces.
- **Art and Design** - drawing the plants or animals you discover, creating biodiversity-related art and sculptures; using natural plant dyes and inks.
- **ICT**: Using data-loggers or digital cameras to record changes, creating presentations about actions taken, using websites and uploading your monitoring and surveying results, data analysis etc. Would you like to install a bird box with its own webcam?
- **Music** - using the noises and senses from areas rich in biodiversity to create music and sounds.
- **Community Cohesion and Citizenship** - working with your PTA, volunteers, local parish council, businesses or local biodiversity groups to raise awareness and take action together
- **Eco-Schools** - contribute to the topics of Biodiversity and School Grounds to contribute towards your Green Flag application.
- **Derbyshire Wildlife Trust** Use the online resources of the Trust's website to give you more ideas. Follow links under Discover & Learn> School Grounds> Schools Grounds Resources where you'll find fact sheets, teaching hints and tips, plus a scale of charges for the Trust to come to your school to help your class build wildlife features in your school grounds.



Photo credit: Derbyshire Wildlife Trust

CASE STUDY: Mundy Junior School - Erewash Valley
Head teacher, Kelvin Gibbs. Eco-Schools Leader, Nicola Moncrieff

During 2009 and 2010 Mundy Junior School worked with Derbyshire Wildlife Trust on a Heritage Lottery Funded project; 'Grounds For Change'. The Grounds for Change project aimed to support schools to develop grounds rich in wildlife, sustainably managed and well-used for play and learning. Enhancing and increasing the biodiversity and natural heritage found in school grounds and supporting teachers to gain the skills, knowledge and confidence to manage and use their grounds would ensure that well-used, managed and biodiverse grounds would become an integral part of the school ethos and practice.

Before the project started there was very little variety in the school grounds as it was a new build site. Some mature trees had been left on the edges and lots of saplings planted, but there was very little variety and most of the plants were not mature. Pupils from the school, as well as teachers, parents and Derbyshire Wildlife Trust staff all worked together to create log piles, a willow dome, two vegetable plots, a bog garden, wildflower area and planted fruit trees.

Since the new habitat areas were created the plant variety has increased dramatically. The wildlife, which left during the building phase, has also started to return. The children have seen a fox, lots of mini-beasts, and a variety of birds which the school recorded for the RSPB schools bird watch. Children undertook a tree count recording over 800 on site!

The children are able to explore and play in the spaces as well as using them for wildlife club, gardening club and during lesson time for different activities including Literacy, Numeracy, Design Technology, Science and Geography (ideas and resources are available as a legacy from the Grounds for Change project - see 'resources' below).

School grounds work is now an integral part of school life. It is included in the School Improvement Plan and the governors have an environmental policy and are fully supportive of the work that is going on. There is a plan of what is on site, how it is to be managed and ideas for new areas, development, management or pupil use are added all the time.

As well as a huge visual impact - turning a 'new' tarmac and short grass desert into a much more wildlife-friendly space - the enthusiasm and momentum for biodiversity related work at the school is immense. Family, friends and the local community have been involved in establishing features in the grounds but continue to be involved in the long term maintenance and care of the whole school - a real community project.

When the expert input from the Wildlife Trust finished, the school went on to add six more vegetable plots, more fruit trees, extended the wildlife area and wildflower area and maintained and changed the bog garden a little to manage it sustainably for the future. The project gave the school a focus and impetus for getting started and have inspiration and ideas which has been sustained and developed by the pupils and staff who have the skills and confidence to continue the work into the future, a real positive for pupils, staff, the community and biodiversity all round!

Resources:



Derbyshire Wildlife Trust - Using your school grounds resources

www.derbyshirewildlifetrust.org.uk/discover-learn/schools/school-grounds/school-grounds-resources

Short link: <http://bit.ly/schoolgrounds>

Developing Your School Grounds (Activities and Charges Brochure)

Shortlink: <http://bit.ly/schoolgroundsactivities>



Above – Insect 'hotel' created by pupils
Below: Planted willow dome



Above – Wildflower meadow
Below – Vegetable plots and compost bins, mini beast heaven!



User guide produced by:

Lowland Derbyshire Biodiversity Partnership www.derbyshirebiodiversity.org.uk

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