

It is generally accepted that urgent action is required to protect endangered species and biological diversity. But, as **Keith Ambrose** explains, our geological heritage is also in need of preservation.

# Conserving our past for the future

The term geodiversity has evolved as a natural progression from, and is analogous with, the term biodiversity. Biodiversity deals with the variety of life on Earth, but all life is dependent on the underlying geology or geodiversity. The simplest definition of geodiversity is: 'the variety of rocks, minerals, fossils, soils, and natural processes forming our landscape'. A more recent definition describes it as: 'the process of recognising and assessing the value of geological features, collections, sites, monuments, artworks, and landscapes and the application of practices for their care, maintenance and management for the long-term benefit of all.' It also involves the mutual communication of knowledge and the linking of natural features to history and culture. In other words, geodiversity is about conserving our past for future generations to enjoy.

One of the main focuses of geodiversity has been Local Geodiversity Action Plans (LGAPs). This stems from Planning Policy Statement No. 9, published by the Department of Communities and Local Government, which specifically mentions the need to consider geodiversity at all levels of planning. A number of LGAPs have already been completed

and more are in progress. An LGAP is not a product, but a set of aims that ensure a process moves towards a vision. They will be constantly updated and evaluated to ensure a healthy future for the geodiversity and geoconservation of the region concerned. Most LGAPs are for whole counties, but some cover other specific areas, for example the North

Pennines Area of Outstanding Natural Beauty (AONB), or urban areas such as the Black Country.

Since 2003, the BGS has been directly involved with over half of the LGAPs produced or currently in production.

## *Northumberland National Park Sustainable Geodiversity Framework (2005–07)*

This is a project to develop and apply a process which will allow a sustainable geodiversity framework to be implemented within an area of aggregate extraction that is also a designated national park. The project involves close collaboration between local quarry operators, local communities, English Heritage, Natural England, and Northumberland County Council.



*Binny Craig — a classic 'Crag and Tail' landform, ice-sculpted from a basalt sill, intruding the West Lothian Oil Shale Formation. The site is a RIG (Regionally Important Geological and Geomorphological Site) site and a West Lothian Geodiversity Site (WLGS).*

#### *West Lothian Geodiversity Audit (2005/06)*

This audit was the first to be conducted in Scotland. It helped to frame recommendations and action points that will guide the sustainable management, planning, conservation, and interpretation of all aspects of the earth heritage of West Lothian. The audit was conducted in partnership with West Lothian Council, Scottish Natural Heritage, and Lothian and Borders RIGS, with funding from the Scottish Executive.

#### *Yorkshire Dales and the Craven Lowlands (2005/06)*

The North Yorkshire Geodiversity Partnership produced a draft Geodiversity Action Plan for the Yorkshire Dales and Craven Lowlands. It sets out a framework of actions for auditing, recording, and monitoring the geodiversity of the area. The partnership comprised the BGS, English Nature, Hanson Aggregates, Harrogate Borough Council, Nidderdale AONB, North Yorkshire County Council, Tarmac Ltd, UKRIGS, and the Yorkshire Dales National Park Authority.

#### *County Durham Geodiversity Audit (2003/04)*

The BGS prepared this audit in collaboration with Durham County Council and an LGAP for the county is in preparation. This contains a broad range of tasks for conserving geodiversity. The recommended actions are intended to inform future policies for the sustainable management of earth heritage.

#### *North Pennines AONB Geodiversity Audit and Action Plan (2003/04)*

The North Pennines AONB was the first area in Britain to be awarded UNESCO-endorsed Global Geopark status in 2003, in recognition of the importance of its geology and the local efforts to conserve, interpret, and revitalise the area through its earth heritage. The North Pennine AONB Partnership commissioned the BGS to advise on the framing of a Geodiversity Action Plan for the AONB. The plan contributes to the understanding and management of the area's unique geological heritage, including the development of sustainable 'geotourism'.



*The interpretation board in place at Beacon Hill, Leicestershire describing the geology of the area.*

#### *Leicestershire and Rutland LGAP (2003–07)*

Two phases of work were undertaken in Leicestershire and Rutland. The principal aims of the LGAP were centred on education. Plans were produced in conjunction with Leicester City and Leicestershire County Council Museums Service, Leicestershire and Rutland Wildlife Trust, Leicestershire and Rutland RIGS group, Leicester University Department of Geology, the National Forest Company, and Ennstone Johnstone PLC. In related work we have helped to produce a new geological exhibit for the Bradgate Park Visitor Centre.

Much of the funding for these projects was secured from the Aggregates Levy Sustainability Fund through the Department for Communities and Local Government or DEFRA and administered by the Minerals Industry Research Organisation and English Nature (now Natural England). Other monies were provided by the BGS, the Northumberland National Park Authority and in-kind contributions from Scottish Natural Heritage, West Lothian Council, and Lothian and Borders RIGS.

In addition to the Northumberland and Lothian LGAPs, we are working with other LGAPs at various stages of development. One of the first LGAPs to

be produced was for Cheshire and we are now active in formulating version two of this document. Herefordshire, Worcestershire, Warwickshire, Shropshire, and Clwydian have recently started and we are involved in compiling the provisional consultation documents. The Black Country and Staffordshire LGAPs have been completed and the BGS is on the Steering Groups. The most recent work has seen the completion of an LGAP for Doncaster Borough Council.

An important aspect of geodiversity is popularising geology at all levels and the new BGS Geoheritage project is focusing on producing popular publications. *Exploring the Landscape of Assynt* started as a one-off project, producing a geological map of the area with a booklet describing geological walks. This has now formed the basis for a new series of maps and books. *Exploring the Landscape of Charnwood Forest* is now published, funded by the ALSF. Other maps and books in the series are in preparation and planning.

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