



## Issue 14: December 2002

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### **The GRC Expands**

Following recent awards to the Trust new posts have been created and filled. The core work of dataset building and review is now the responsibility of Natalie Watkins as Data Manager. The Herefordshire rivers project brings in Moira Jenkins as Special Projects Manager with responsibility for the two year programme and the development of five landscape trails. As part of the same project Julie Bundred is the RIGS Surveyor concentrating on fluvial sites. Ruth Thornhill continues as Trails Manager now looking after the publication of up to 16 guides over the next three years. Rollo Gillespie as RIGS Surveyor is concentrating on identifying new sites for designation. Lynne Oliver is Sales Co-ordinator for trails guides looking after an established list so far of 35 retail outlets. In addition volunteers playing very active roles in the work of the Trust are Les Morris (trails research), Cheryl Jones (database development), Cherry Oliver (financial control) and John Payne (literature database).

### **New Awards**

The Trust has been successful in two important bids - one award from Aggregates Levy Sustainability Fund via English Nature and one from European Regional Development Fund via LEADER+. Combined the total value of these two projects is £135,000 over two years and they provide the foundation for the important core work of RIGS (Regionally Important Geological and Geomorphological Sites) surveying and designating as well as public awareness and education.

The first project is to carry out over 18 months the recording and designation of 30 RIGS associated with aggregates sites and to develop a GIS (geographical information system) for all RIGS on our existing geoconservation database. All RIGS on our database (110 including the new 30) will be enhanced with digitised photographs and GIS site boundary information and all will be linked with the two county and six district council GIS and development planning systems. A full landowner survey with database addition.

The second project follows on from the research work of Pauline Couper in 2001, which looked at

the fluvial systems in Herefordshire. The Trust wishes to develop this further. Pauline made an assessment of the potential of Herefordshire rivers to provide regionally important sites and to feature in public awareness programmes. The Rivers Wye, Lugg, Arrow and Frome are to be surveyed to establish the extent of important Geomorphological features both dynamic and ancient with a view to recording these scientific attributes and adding them to the Trust's existing geoconservation database. This will further the knowledge of the fluvial systems in Herefordshire and enable the development of management programmes that address conservation and public use. A major outcome will be a better understanding of local dynamic river processes. All of the information accumulated in the first phase of the project will then be used to develop public awareness programmes aimed specifically at Earth heritage. Such aspects as river valley topography, fluvial deposits, erosive processes and features, flood plain development, river hydrology, geological influences and ancient river landscapes will all be incorporated into the development of trails, site interpretation panels and publications for public use. The trails will follow public rights of way and will be chosen for impact and safety. Site interpretation panels will be located at prominent points. The publications will adopt the format successfully used by the Trust to date (example enclosed). The local community will be encouraged to participate in the production of the trails and to develop a watching brief for identified sites of importance. As well as the local community, schools will be encouraged to use the trails to assist in key stage 2 and 3 work. Marketing of the guides will help bring tourism to the areas in question - a process that has proved successful in other areas where trail guides have been produced by the Trust.

A third project yet to receive funding, is to produce a collection of rock samples representative of the stratigraphical column for the two counties. Sampling will be to at least Formation level. Curatorial work of specimens will be undertaken and then specimens will be moved to and be stored at Hereford Museum and Worcester Museum where public displays will be developed. In addition cabinets have already been purchased and located for this project at the Museums which are providing long term access to the collections. The collections will serve three purposes - scientific and educational research and as part of public displays. A significant section of the stratigraphical column in the two counties has been the subject of aggregates extraction - Precambrian, Silurian, Devonian, Jurassic and Quaternary. Scientific and educational studies of the materials from these industries at a central point provides a good long term facility for the understanding of the geology of aggregates extraction in the context of regional geology. The specimens collected will be available for long term study thus providing an understanding of aggregates in the two counties. The Trust is now seeking a grant giving organisation interested in supporting this important programme.

### **Western Association Aggregates Levy Sustainability Fund Award**

Oxfordshire RIGS Group acting as the lead organisation for the WA has been awarded nearly £100,000 to carry out a full review and appraisal of RIGS within the Western Association region, which at present covers Avon, Gloucestershire, Herefordshire, Oxfordshire, Shropshire, Warwickshire, Wiltshire and Worcestershire. The team will select flagship sites in urgent need of remedial work and best suited to public access and education and will produce detailed Site Management Plans for the sites and a Geoconservation Strategy for the region. Five project officers will be appointed to carry out this review and to conduct appraisals for selecting the sites. They will also arrange meetings and presentations with the stakeholders and local communities involved and produce detailed site Management Plans and the Geoconservation Strategy.

Sites will be chosen that reflect the full range of Geological and Geomorphological sites available in the region. Clearly these will lean heavily towards those with an aggregates industry origin, which by its very nature creates some of the most important geological exposures in the United Kingdom. The value of some of these sites is recognised by their designation as SSSIs, however many do not carry this statutory protection and suffer damage or obliteration through landfill and

unsympathetic restoration. This project aims to create a partnership between the stakeholders, especially the aggregates industry, local communities and the geoconservation movement, so that the Geodiversity potential of these sites can be better understood and protected.

The project officers and their associated RIGS groups will hold presentations which will be open to all stakeholders, especially local communities and schools. Their co-operation and support will be sought for the project's aims and objectives. A major product of the whole project will be the development of a two year implementation programme which will be aimed squarely at increasing access and interpretation of the sites selected and the development of the sites as recreation and education resources for local communities, schools and colleges. The proposals within the plan will concentrate on public awareness and therefore access and use by the public will feature strongly in the report. Such approaches seek to build on the successes and experience of the Western Association members in generating a better understanding of Earth Heritage amongst the public. A better understanding of the local environment and the intrinsic Geodiversity value of aggregate sites will lead to greater protection, more recreation opportunities and increased local community involvement.

This success within the WA builds on the first project (DETR) that H&W EHT managed. Member groups are already putting together the details of the next WA project which is aimed at compiling a building stones register for the region.

### **Herefordshire BAP**

*Rollo Gillespie writes:*

This project, funded by English Nature as part of Herefordshire Biodiversity Action Plan, is now complete. Seven trail guide inserts describing the fauna and flora of the Trust's Geology and Landscape and Building Stones trails programme have been produced. In addition two general guides giving an overview of limestone and sandstone terrains have been produced. These have been collated into a booklet that will be available in libraries in Herefordshire.

Interpretation sheets for Swardon quarry near Mordiford and Bishops Wood near Kerne Bridge are now in place on Herefordshire Council's picnic site boards. Bishops Wood sheet presented more material than usual and although 'Brevity is the soul of wit' it was difficult to abbreviate the lifestyle and sexual habits of the glowworm!

The orchid / helleborine section of the Purlieu trail became a saga. It was a fluke that I noticed the spike growing and over the period of a month I watched it grow to 18 inches high and flower. A final expedition revealed the plant in all its glory.

### **The Explore Landscape and Geology Trail Series**

The explore series of trail guides explains and illustrates many aspects of landscape and geology in Herefordshire and Worcestershire. The guides tell the story of the evolution of the landscape that we live with today as the backdrop to our daily lives. If you have ever wondered about the different rocks and soils you see in the two counties or the hills and valleys in this beautiful part of the country, this series will answer some of your questions.

At different times the local landscape has been a hot arid desert, a warm tropical sea, has contained areas of tropical swamps, been buried under many metres of ice, and subsequently eroded by the huge volume of water that melting ice produced.

There are a number of Landscape & Geology and Building Stones trail guides currently available five of which are briefly described below.

Explore Severn Valley Railway explains aspects of geology and landscape seen from the window of the train as it travels from Kidderminster to Bridgnorth. The story is told of the role of ice and water in the formation of the Severn Valley. The visitor learns of the links between this evolution and the landslips and river terraces now present. The guide also explains the different rock types visible from the window - areas characterised by soft red sandstones formed in deserts as well as the harder grey Carboniferous sandstones. This is combined with a guide to the built environment in the form of station buildings.

Explore The Malvern Hills by car or cycle trail gives an overview of the different landscapes visible from the Malvern Hills. To the east lies the relatively flat Severn Plain of Worcestershire whilst to the west are seen the gently rolling limestone hills of eastern Herefordshire. These vastly different landscapes are clearly illustrated with diagrams and sketches. The formation of the rocks of the ancient Malvern Hills is explained in a simplified way, as well as the role of earth movements in producing the scenery we see today.

Explore The Wyche and Purlieu is a walking trail covering a diverse range of geology and landscape features. It starts at the Wyche on the Malvern Hills and looks at some of the oldest rocks in the British Isles - the Precambrian rocks of the Malvern Hills. It explains aspects of the views both east and west from the hills, before going on to look at the Silurian limestone landscape on the western side of the hills. The visitor is introduced to the warm tropical sea environment and the creatures that once lived on the sea bed.

Explore Great Malvern Building Stones introduces the visitor to aspects of geology through the use of building stones both local and far-travelled. The trail illuminates the connection between the development of the town on this site because of its geographical location and natural resources of water and stone. It also describes and illustrates the different rock types used in the town including the igneous and metamorphic Malvern stone walls, and sedimentary limestones and sandstones used in the buildings of Church Street and the Priory.

Explore Worcester Cathedral Building Stones takes the visitor around the cathedral with fresh eyes. It looks at the local rocks used for building stone, which were brought down the River Severn to the cathedral. It points out the fossils in some of the floor tiles, and the ornamental rocks used in the tombs.

Other trails: Explore Wigmore Glacial Lake.  
Explore Symonds Yat.  
Explore Goodrich Castle Building Stones.  
Explore Bredon Hill (west)

The explore series of trail guides are available priced £1.95 from Tourist Information Centres, bookshops, outlets local to each trail, and from the Earth Heritage Trust. The series is rapidly expanding, so look out for new titles. Some of the locations currently being researched are the Clent and Lickey Hills, Hereford and Worcester city centres, the Black Mountains, Bewdley town centre and the Abberley Hills.

## **Open University Science Short Courses**

*Cherry Oliver writes:*

For anyone wishing to study geology and related subjects in more detail but without necessarily committing themselves to formal study the Open University offer some excellent short courses. The OU advises that for the following courses it is assumed that you are new to science and that an interest in the subject and motivation are all that is required. You should be able to understand

articles written in broadsheet newspapers and be able to write coherently. Maths is simple addition, subtraction, multiplication and division.

Life in the Oceans - Exploring our Blue Planet. This is linked to the television 'Blue Planet' series  
Global Warming - The Science Behind the Headlines.

Fossils and the History of life.

Introducing Astronomy.

From personal experience I can highly recommend 'Fossils and the History of Life'. Course materials include an OU textbook and a beautifully illustrated 'Atlas of the Prehistoric World'; a replica fossil kit and hand lens; a videocassette of a TV programme called 'Lost Worlds' and a CD ROM, the use of which is optional. There is also optional access to a computer based conference and a database of internet resources.

To help you with your studies a comprehensive and clearly written Study Guide is provided and a tutor may be contacted by telephone or on-line. The course is presented four times a year, as are the others, and takes 80-100 hours to complete. If you wish to gain the 10 point Credit for this short course there is an End of Course Assessment that you can submit a minimum of 8 weeks after the start of the course or up to 20 weeks later if you need more time. Credit can count towards an OU degree. Most people like to have a credit for their work but you can do it purely for the joy of studying this fascinating subject.

Individual courses vary and more details of these and other courses are available from:

Course Information and Advice Centre  
The Open University  
PO Box 724  
Milton Keynes  
MK7 6ZS  
Tel : 01908 653231  
Fax: 01908 655072  
Email: [general-enquiries@open.ac.uk](mailto:general-enquiries@open.ac.uk)  
[www.open.ac.uk/science/short](http://www.open.ac.uk/science/short)

### **AGM**

The Annual General Meeting of the Trust will be at University College Worcester on Thursday 6th March 2003; 6.30 for 7.00pm in the Malvern Room of the Conference Centre. Wine and light refreshments will be available. Membership fees (£2) will be due on the day. Nominations for the positions of Chairman, Secretary and Treasurer together with up to 5 positions (including the officers) on the Executive Committee should reach the Trust at least 14 days before the AGM. The following nominations have been received to date: Les Morris as Chairman, Cherry Oliver as Treasurer, John Medley and John Payne as Executive Members.

As required under article 18 of the constitution, advance notice is hereby given that the following resolution to alter the constitution has been received:

The constitution be amended by the substitution of the word 'Group' with the word 'Trust' wherever it occurs. Proposed by Moira Jenkins and seconded by Rollo Gillespie.

### **In the Next Issue**

➤ Director's Annual Report

- Geoconservation Projects
- Western Association Developments
- The RIGS List
- Herefordshire Rivers Project
- Rock and Fossil Roadshows