



## **Newsletter Issue 11: June 2001**

### **In This Issue:**

- **What's New?**
- **Five-Year Plan**
- **Director's Report**
- **Health & Safety Handbook**
- **Western Association Grant**
- **Rockwatch Events**
- **In The Next Issue**

### **What's New?**

**TRAIL FOR SALE!** The first of the Group's Landscape and Geology Trails was launched at our Five-Year Plan Presentation in April. Describing Wigmore Glacial Lake in northern Herefordshire, this driving trail explains the development of the former lake, the geology of the building stones in Wigmore Castle, and the formation of Downton Gorge, amongst other features. The trail is available for purchase (price £1.95) from the Group; please contact Ruth Thornhill for further details (email [R.Thornhill@worc.ac.uk](mailto:R.Thornhill@worc.ac.uk)).

**New Accommodation:** The Geological Records Centre is now located in Woodbury Hall, University College Worcester (UCW). The new rooms include a larger main office, a room for specimens, and a small meetings room holding our maps and publications. The extra space means that our volunteers are better able to work with us in the Centre, in a more welcoming environment.

**New Staff:** We have a new staff member in the form of Rollo Gillespie, employed by the Group as part-time Biodiversity Co-ordinator. The aim of Rollo's work is to develop a 'seamless link' between geodiversity and biodiversity in Herefordshire, strengthening partnerships with other organisations. This work is supported by English Nature. Rollo can be contacted at the Centre (address above left), email [R.Gillespie@worc.ac.uk](mailto:R.Gillespie@worc.ac.uk).

**BGRG Grant:** The British Geomorphological Research Group (BGRG), the professional organisation for geomorphologists in the British Isles, has recently awarded us a £500 grant towards the Fluvial Sites Project (described in our last newsletter). This is the first time that the BGRG have directly supported RIGS work and they felt that the project was of such importance that the award is greater than the amount we originally applied for. As a result the project will also consider sites relating to 'other' geomorphology, such as the rich glacial heritage of the region. The Group is grateful to the BGRG for this support.

### **Five-Year Plan**

On 6th April 2001 the Group held its 'Five-Year Plan Presentation', attended by over 60 delegates

from a variety of organisations whose work corresponds with ours in some way. This event was arranged to mark the completion of five years of the Group's work and put forward the proposals for the next five years, and was accompanied by the release of our 'Five-Year Report and Plan'. Support for the event was received from Awards For All and University College Worcester, with production of the report funded by the Geologists' Association Curry Fund.

The morning consisted of a series of short papers presented by members of Herefordshire and Worcestershire RIGS Group, explaining some of the projects currently underway. A buffet lunch provided ample opportunity for informal discussion of the issues raised, and in the afternoon, members of the neighbouring RIGS Groups (which, together with H&W RIGS, form the Western Association of RIGS Groups) spoke on a variety of practical issues.

The event provided an opportunity for all those interested in Geoconservation in the local area to come together, putting forward their perspectives on the topics raised and exchanging ideas. As a result, established partnerships have been further consolidated and the potential for creation of new collaborations explored. The profile of RIGS among local organisations was raised and we hope that this will strengthen Geoconservation within the two counties, with similar benefits perhaps being felt in the surrounding area.

The following are extracts from our 'Progress Report and Development Plan 1996-2006':

RIGS are a vital part of Earth heritage conservation throughout the British Isles. Together with the Sites of Special Scientific Interest (SSSI) network and Geological Conservation Review (GCR) sites, RIGS are of great importance and complement sites protected by statute. Earth Heritage Conservation, produced following the Malvern Conference in July 1993 states the criteria which can be applied in the selection of RIGS sites:

- Preservation of our heritage for the future
- Training of Earth scientists
- Providing an essential teaching facility for lifelong learning
- Acting as a focus for leisure and tourism activities
- Allowing research for the advancement of science
- Having aesthetic, amenity, historical and cultural value.

Earth science sites are worthy of conservation in their own right. They hold within them crucial information about the history of the British Isles and the Earth. However, the conservation of sites for their Earth science interest can sometimes seem to be removed from the main thrust of species and habitat conservation. This is surprising given that there is no justification for this separation in British law; the Wildlife and Countryside Act (1981) affords equal protection to habitats, species and Earth science features.

The importance of Earth sciences in determining the nature and location of habitats, and therefore indirectly helping to determine species number and distribution, is becoming increasingly well understood. Logically then, an understanding of the importance of the role of Earth sciences ought to be recognised through conservation management and should be fostered by local authorities under existing commitments. This might be done through the local Biodiversity Action Plan process, although there is every reason why Geodiversity Action Plans should be promoted. Earth science is therefore fundamental to many wider conservation goals and the Earth science resource has exerted a strong influence, in physical, social and economic terms, on 'the way Britain looks today'.

As RIGS are selected for a wider range of criteria than SSSIs, they can be seen to be very relevant to local priorities and issues, such as the provision of agreed access to the countryside. They can provide an historical and cultural link between the development of built-up areas and the Earth through quarries or mining sites, and they can be an important educational resource. At a school and university level, fieldwork can help in the development of a number of key skills such as literacy, numeracy, comprehension of complex ideas and group working. The provision of interesting and safe sites for schools and universities is also an important way of initiating and supporting an interest in Earth science.

‘Regionally Important Geological and Geomorphological Sites’ (RIGS) are currently considered the most important places for Earth science outside land protected by statute such as Sites of Special Scientific Interest (SSSIs). RIGS are identified by locally developed criteria. They are important as an educational, historical and recreational resource. The designation of RIGS is one way of recognising and thereby protecting important Earth science and landscape features for the future. RIGS are selected in a different way to Earth science SSSIs. RIGS are selected on a local or regional basis using four nationally agreed criteria:

- The value of a site for educational purposes in life long learning
- The value of a site for study by both professional and amateur Earth scientists
- The historical value of the site in terms of important advances in Earth science knowledge, events or human exploitation
- The aesthetic value of a site in the landscape, particularly in relation to promoting public awareness and appreciation of Earth sciences.

Local RIGS groups often devise additional criteria based on these national parameters depending on local or regional circumstances. However the fundamental criteria are those listed above and they are those that currently form the basis of designation within the planning system.

RIGS are broadly equivalent to local Wildlife Sites and other non-statutory wildlife designations in their level of protection through the planning system. They can be listed in local authorities’ development plans and shown on ‘alert maps’. RIGS can be protected through the planning system if a RIGS group recommends sites to the local planning authority. Conservation and management of sites will usually depend upon agreements and cooperation with landowners. RIGS are described in Planning Policy Guidance Note 9: Nature Conservation, paragraph 17 (England and Wales) and National Planning Policy Guideline 14 (62): Natural Heritage (Scotland).

RIGS groups assess, select and occasionally manage RIGS in their area. Most RIGS groups operate on a voluntary basis although their members may be professional Earth scientists, consultants, planners, teachers and conservationists as well as amateurs and volunteers. However, more groups are realising the importance of salaried personnel and the consequent need for sound financial structures.

The Project: The importance of RIGS should be clear from the preceding sections. However, many Earth science sites are under threat from a whole host of sources. Natural degradation is inevitable but it is still possible to minimise even that process by the judicious use of physical protection from the elements. To help in the understanding of geoconservation, the classification produced in Earth Science Conservation in Great Britain - A Strategy is used by the Group.

Integrity Sites are one side of a two-part classification of Earth science conservation. Their scientific and educational value lies in the fact that they contain finite and limited deposits. These are landforms or fossils that are irreplaceable if destroyed. Other examples are caves, karst (limestone pavements etc), active and static geomorphological sites, mineral dumps or mineral and

fossil sites. The other part of the classification is 'Exposure Sites' which are those whose scientific or educational value lies in providing exposures of a deposit, which is extensive or plentiful underground. Most quarries, cuttings, cliffs, mines and outcrops fall into this category. The methods of conservation of sites in these two categories are different. Active erosion or quarrying can create exposure sites where none existed previously. Integrity sites require preservation or, at least, human intervention should be restricted.

The protection of RIGS is achieved most effectively through the planning system, through local experts recommending sites to the appropriate planning authority. Most local planning authorities regard RIGS as equivalent to non-statutory wildlife sites and thus list them in their local plan. Although effective conservation and management of sites will often depend upon agreements and cooperation with landowners and site operators, protection is only possible if local authorities are aware of these important Earth science sites; it also depends on their ability to restrict development there.

These basic factors can be applied to the counties of Herefordshire and Worcestershire that occupy an area of 3930 sq. km. and in total, are some 80km from east to west and over 50km north to south. They also have a great range of geology both in the form of rock types and of age. There are major changes in landscape from the Midland plain in the east through the Precambrian Malvern Hills to the rolling hills of the Welsh Borders in the west. The recording and protection of this geological and geomorphological heritage is an important task.

### **Director's Report**

At the Annual General Meeting of the Group on 2nd February 2001 the Director gave the report below. (Please note that some of these projects have now moved on).

1) I am able to report another successful year for the Group with funding from four new sources (LHI, MEF, RSNC and WCC) and three new projects underway (Type Collections, Schools national curriculum trails and Geological Units Surveys). More information below.

2) We have been awarded approximately £14,000 from the Countryside Agency under its Local Heritage Initiative. This is the first phase of a project to create two type collections, one for Herefordshire and one for Worcestershire, illustrating the geology and geomorphology. Hereford and Worcester Museums have indicated their willingness to house these specimens as part of their permanent collections and to provide display and research space. Much credit is due to Jon Cooter at Hereford and Rosemary Roden at Worcester for encouragement and assistance with developing the ideas and putting them into practice. Indeed Rosemary has agreed to oversee the identification and cataloguing of specimens.

3) A second part of the same award is to be used to identify sites for use by schools in key stage 2 work and to produce worksheets and information leaflets for teachers. Part of the programme involves two Rockwatch roadshows, one at Hereford Museum and one at UCW. These will take place at the end of April.

4) The trails programme continues to gain momentum with a recent award (£7800) from the Mercia Environment Fund, which will enable us to begin work on 4 new trails in Worcestershire. Ruth Thornhill must be congratulated for this success. She is now Trails Manager for both counties following the departure of Adam Stinton to the USA to work for a PhD in volcanology. Ruth has two trails nearing completion; it is hoped to launch 'Glacial Lake Wigmore' and 'Worcester Cathedral' in April. 'Hereford Cathedral' and 'Bredon Hill' will follow soon. The latter has been made possible by a grant of £2000 from RSNC and the Herefordshire trails are financed as you know, by the European Regional Development Fund (Leader II). English Nature has expressed an

interest in part funding trails in the Malvern Hills.

5) Worcestershire County Council under the 'Discovering Worcestershire' programme, awarded us £2000 to carry out two geological surveys and interpretations; the Malvern Hills and the Abberley Hills. Cheryl Jones has been contracted to do this work with a request to publish booklets for each study when funds become available. Malvern Hills AONB has expressed a desire to help in this context. We have set ourselves a target of 16 booklets, eight for each county, which will analyse the geological units of the region. Two studies in Herefordshire are planned if funding from the Wye Valley AONB, which is very supportive of the programme, is forthcoming. The Wye Gorge and Woolhope Dome will be the first two of the proposed eight.

6) The Group has been successful in securing agreement from the Heritage Lottery Fund to re-arrange the allocation of money within our award so that the 12-month full-time post of Fluvial Sites Project Manager could be created. Pauline Couper has been appointed to this position. We all know of her major contribution to the professionalism of the Group and her input into geomorphology within the RIGS programme.

7) Pauline is also organising a one day presentation on 6th April, aimed at councils, industry, conservation agencies and individuals, when the Group will set out a '5 Year Plan', cover progress over the last 5 years and provide an afternoon field assessment in the Malvern Hills looking at a RIGS, SSSI 'facelift' work and the proposed LHI key stage 2 trail. There will also be an exhibition.

8) The afternoon field excursion will incorporate a Western Association meeting. The WA has now been meeting regularly for over 12 months and consists of the RIGS groups for Avon, Gloucestershire, Oxfordshire, Shropshire, Warwickshire, Wiltshire and us. We have spent most of our time looking at funding and improving working practices but we have also put emphasis on helping the development of fledgling groups within the WA. The main outcome of the first year has been the application to DETR for £68,000 to speed up RIGS designation work amongst the 7 groups over the next 12 months. This proposal was supported by DETR officials and has now been independently assessed. A decision is expected at the end of February.

9) We have had a successful year with regard to the designation of RIGS with 35 now on the list. It is anticipated that a similar number will be designated over the coming year.

10) The number of site records now in the Geological Records Centre is 1000. Unfortunately most of these are still held on paper, as we are not yet in a position to use the new computer database. Cheryl has put an enormous effort into developing MS Access for this purpose and she is nearing completion of the task. She has done all this in her own time and the Group is very grateful, not least because it allows us to play a lead role in streamlining the computer recording system for RIGS groups in the UK.

11) Linking in with the database is the comprehensive bibliography that John Payne is producing. So far there are well over 1000 references together with an increasing number of offprints. The latter, together with reference books and our map sets is housed in a small library in our new accommodation in Woodbury. Here we have much improved accommodation including space for storing and identification of specimens, and we are adjacent to the Archaeology Department.

12) We have carried out 'Facelift' SSSI enhancement work for English Nature in Mortimer Forest and similar work is underway in the Malvern Hills. A second phase of survey work is also being carried out in the Malverns and it is hoped that all the facelift work will be completed before the summer.

13) Again the input from volunteers has been considerable. The active members over the last 12 months were Moira Jenkins, Rollo Gillespie, John Medley, Les Morris, Ros Skelton, Cheryl Jones, Martin Allbutt, Peter Thomson, Franklin Rarity, Adam Pugh and John Payne.

14) Finally I would like to express my thanks to the Executive Committee for their continuing support and ideas. Along with the Panel of Assessors the Committee members have ensured sound professional and financial control of all our activities.

The Executive Committee remains much the same as last year, but with the co-option of Dr. John Payne. The Committee now consists of Les Morris (Chairman), Moira Jenkins, Dr. Cheryl Jones, John Medley, Dr. John Payne and Peter Thomson.

### **Health and Safety Handbook**

The Group has received an award of £1000 from the Rural Development Area Small Projects Fund via the Herefordshire Partnership. This money is being used to compile a handbook for volunteers and staff covering all aspects of fieldwork. 50 handbooks will be printed. It also helps to pay for a first aid training session and seminar. The work should be completed by the end of July.

### **Western Association Grant**

The Group has been awarded £68,000 by DETR to organise and oversee a major project of RIGS designation for 12 months beginning April 2001. The work covers the region of the Western Association of RIGS Groups and involves the creation of 7 half time project officer posts, one for each county. The details of the submission to DETR were as follows:

Sites of geological and geomorphological value are continually used and abused for landfill, industrial and domestic development with little regard for their educational, scientific or recreational value. They are poorly understood, recorded and managed and remain a unique and often irreplaceable resource. This proposal is a major addition to the Geodiversity recording programme and produces a significant resource (access to site archive details) for education both with the general public and the National Curriculum in schools (Earth science forms part of Geography and Science curricula). The designated sites enable protection of scarce environmental features under planning legislation. The consequent long term use of these protected and managed sites provides a source of learning about our natural environment and the limited mineral resource it represents.

The targets and objectives for the project are: To research, record and designate 300 RIGS using the 4 criteria set out by English Nature in 1990 - scientific, educational, historical and aesthetic. The assessment by panels of professional Earth scientists leading to an accelerated rate of RIGS designation. Production of RIGS designation reports with all relevant technical information for the 300 RIGS. The notification of these RIGS to and acceptance by County Planning Officers as part of the Structure Plans. Production of proposals for the educational and recreational use and management of the designated sites.

RIGS groups in the region have already begun the process of designation of RIGS. Partnerships are being developed and strengthened with County Record Centres, Wildlife Trusts, County Councils, Universities and the Association of UK RIGS Groups. Lack of funding in the past has resulted in the designation of only 550 RIGS in the application area in the last 10 years. The designation of an additional 300 RIGS in 1 year will be a major advance and contribution to the geodiversity programme.

### **Rockwatch Events**

As part of our educational project funded by the Countryside Agency under their Local Heritage

Initiative, the Group recently ran two Rockwatch Roadshows for school groups. Rockwatch is the UK's leading club for youngsters interested in the Earth, rocks, fossils and minerals, run by the Royal Society for Nature Conservation.

The Group organised two events; on 30th April at University College Worcester and on 1st May at Hereford Museum. Parties of school children descended on each centre to take part in a range of 'rock-related' activities provided by Rockwatch. In all, 14 schools from across Herefordshire and Worcestershire were able to attend the events, with around 200 children each day coming through the doors. Thanks to the Countryside Agency's grant this was provided at no cost to the schools.

Each school group spent around 2 hours with us. Whilst some children were making Plaster of Paris 'fossils', others were learning about the history of life on Earth, constructing 'Jurassic forest' collages, racing remote control trilobites (fossils on wheels), testing mineral hardness or discovering how important geology is in our every-day lives. In groups of around 10, the children were able to have a go at most of the activities available, and with the popularity of Jurassic Park a Velociraptor skull on the dinosaur table added further excitement to the day. A number of the schoolchildren who visited the events wrote to thank us afterwards, with some well-illustrated letters arriving. In addition, each school attending the event was given a box of rock and fossil specimens and accompanying booklet to take away, which we hope has proved useful in subsequent school work. The success of the programme is largely thanks to the RIGS Group volunteers who have put a good deal of time and effort in so far, preparing the specimen sets and booklets, and manning the activities on the days. University College Worcester and Hereford Museum generously provided their facilities free of charge, and the events received attention from the local press and radio.

Interest in the events had been so great that we were unable to include all the schools who wanted to come. As a result, we intend to extend this programme by developing our own set of similar activities, specifically aimed at Key Stage Two of the National Curriculum. Beginning in 2002, we will run a series of events of this type each year and will thus be able to reach a larger number of schools and a larger number of children. In the long-term, Earth heritage conservation is dependent on the interest of the public and enthusiasm of Earth scientists. It is important that youngsters are encouraged to take an interest in the geology and landscape around them as they are the public and scientists of the future, and this programme can help to make Earth science fun for the children whilst acting as a resource for the schools.

### **In the next issue**

- Biodiversity Links
- Trails Update
- Fluvial Sites Project Update
- Rock and Fossil Educational Events
- SSSI Surveys
- Local Heritage Initiative Type Collection
- New Projects