



## **Newsletter Issue 3: March 1998**

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### **Herefordshire & Worcestershire RIGS Group Annual General Meeting**

The first Hereford & Worcester RIGS Group AGM was held on 13th January, 1998.

Representatives attended from: the Black Country Geological Society and West Midlands RIGS; Planning Department, Hereford & Worcester County Council; Worcestershire Naturalists' Field Club; University College Worcester Geography Department; Woolhope Naturalists' Field Club and Herefordshire Wildlife Trust; Worcestershire Wildlife Trust; Worcester City Museum.

### **Director's Report.**

The Director's report was presented at the meeting, as follows:

The Group had been formed following a first meeting on 6th October 1992. Subsequent meetings took place on 4th December 1992 and 5th March 1993. Unfortunately many of the original participants withdrew from the Committee and activity virtually ceased. In March 1994 Helen Stace wrote to all those originally involved and some extra contacts, in order to ascertain the level of support. Only 5 people replied positively. As a result Dr Peter Oliver was appointed as Co-ordinator and began to organise the Group on a proper professional and financial basis. A Steering Committee was formed consisting of Helen Stace, Alan Cutler and Peter Oliver and a constitution was drawn up.

In order to obtain financial support Peter Oliver wrote to a large number of commercial organisations, all the District Councils and the County Council. This exercise took most of 1995 and although support was expressed by most of the contacts, no money was forthcoming.

In July 1995 Peter Oliver approached University College Worcester (then Worcester College of Higher Education) with a view to it becoming the Recording Centre for the Group. The College was very positive from the beginning, largely as a result of the enthusiasm of Dr John Fagg who is Head of the Department of Geography. In January 1996 the Department agreed to be the Recording Centre and computer facilities, accommodation, a telephone link and mail drop were made available to the Group.

The Group obtained some initial funding from English Nature and as a result GD2 software was purchased from Charles Copp and a part-time Data Manager position was created. Pauline Couper was appointed to this post in April 1996.

In order to establish the long-term viability of the Group significant funding was sought from the Heritage Lottery Fund and an initial approach was made in January 1996. A detailed application was made in May 1996 and subsequently an award was made to the Group on 23rd April 1997. The grant of £123,000 covers a 4/5 year project and must have equivalent partnership funding.

The information collected is initially in the form of data supplied by geologists and geomorphologists. This is then processed by the Data Manager and stored on computer. Eventually RIGS will be designated and given official status and a list of these sites will be available to all interested bodies such as District and County Councils, schools, colleges and universities, students, wildlife trusts, and professional and amateur geologists and geographers. The product of the project will be a computer based repository of RIGS and other important sites.

Those that have supplied site details so far include The Environment Agency, The County Council, Worcestershire Wildlife Trust, English Nature, Bromsgrove District Council, Maggie Rowlands, Rollo Gillespie and Alan Cutler. In addition Pauline Couper and Peter Oliver have been carrying out extensive literature searches mainly using Geological Survey memoirs. To date there are approximately 800 sites on the database.

The list of sites is available simply by contacting the Recording Centre at University College Worcester. This list can be accessed, using the computer, in a number of different ways; for instance in the form of all sites in a particular part of the County, all sites displaying a particular type of rock or group of fossils, all sites with rocks of a certain geological age. The Group will ensure wide-scale availability of the information by undertaking regular publicity programmes, by inviting institutions and organisations to supply representatives as members of the Group and by maintaining frequent and regular contact with schools, colleges, universities, museums, local authorities, wildlife trusts and natural history societies.

At present an exhaustive database of geological and geomorphological information relating to sites in the County does not exist; this project thus provides a major advance. Those to benefit from the project will include schoolchildren undertaking Earth science fieldwork as part of the National Curriculum, students studying for higher level qualifications and carrying out research, the planning authorities as they make decisions regarding developments, amateur individuals and groups with an interest in Earth science, and landowners, quarry and landfill operators, all of whom will be made aware of the significance of sites on their land.

Working relationships have been established with Jonathon Cooter at Hereford City Museum, Garston Phillips and Rosemary Roden at Worcester City Museum, Andrew Fraser at Worcester Wildlife Trust, Fiona Lickorish at Herefordshire Wildlife Trust, Peter Thompson at Woolhope Naturalists' Field Club, Nick Dean at the County Planning Department and the geomorphologists in the Geography Department at the College (Cheryl Jones, Ian Maddock and Derek McDougall).

The Geography and Science Departments are producing an information site on the World Wide Web and H&W RIGS Group is preparing to display the Newsletter on these.

The possibility of holding a conference for English RIGS Groups, subject to funding and support, is being investigated by Hereford & Worcester RIGS Group. The proposal is for a major event and will be supported by The Geological Society, The Geologists' Association, English Nature, Hereford & Worcester County Council and The Wildlife Trusts. Any funding that can be secured

would allow perhaps two representatives from each RIGS Group to attend the 3 day conference free of charge. The conference would look at matters such as recording of sites, education, conservation, information technology, national guidelines, links with industry and wildlife trusts, site management and geological trails as part of a residential programme with some field trips. The proposal will only go ahead if sufficient funding can be obtained. A tentative date has been suggested for the first week in September 1998 and a conference committee is already drawing up a provisional programme.

The Group has joined BTCV and has taken advantage of the public liability insurance.

The Group has made contributions to the publications "Earth Heritage" and "RIGS Briefing."

The Group has become involved with the academic work of the College and provides information about sites to staff and students.

It is hoped that the organisations that are members will act as an advisory group, meeting on an occasional basis, in order to help the RIGS Group form an overview of its conservation and recording strategy.

The volunteers involved in recording for the Group are, at present, few in number. It is hoped that they will be prepared to meet twice per year with the Director in order to work out a recording programme and consider such issues as safety and access.

Officers of the Hereford and Worcester RIGS Group Executive Committee were then elected by those attending the AGM, as follows:

- Alan Cutler (Chairman)
- Cheryl Jones
- Les Morris
- Peter Thomson

### **Geomorphology at UCW**

*Cheryl Jones (lecturer, University College Worcester) writes:*

Geomorphology is the study of landforms, Earth processes and landscape evolution. The Geography Department at University College Worcester (UCW) introduces the student to a "snap shot" of the Earth's history. This allows the student to appreciate that modern geomorphology is a special subject area that lies at the heart of many other Earth sciences.

At level one the student is introduced to the origin and composition of landforms. Special emphasis is placed upon the development of geomorphology as a discipline and the study of glacial landscapes, fluvial processes and slope systems. Additional subjects such as plate tectonics, weathering and erosion allow progression into more specialist areas of geomorphology such as slope stability, glacial, periglacial and fluvial geomorphology.

Applied geomorphology is considered to be an integral part of the course at UCW. Modules are offered in soil mechanics, river conservation management, Quaternary studies and environmental geology. This allows the student to appreciate how land form and process can be incorporated into environmental management and land use planning

Field work is actively encouraged within the Geography Department, which provides the student

with the opportunity to study the processes that have shaped the Worcestershire landscape. Lecture material is complemented by practical based learning which develops skills in the use of analytical techniques to investigate landform processes. This includes river monitoring, use of Global Positioning Systems, geotechnical analysis of superficial deposits and site investigation techniques.

Residential field courses are also undertaken in the widely contrasting environments of west Wales, the Lake District and Dartmoor; these investigate changing landscapes and allow the reconstruction of the vagaries of the last ice age. During the summer vacation students have the opportunity to experience an active glacial system during a residential field study in the Swiss Alps.

### **The Geological Collections of Hereford City Museum.**

*Jonathon Cooter ( Deputy Curator of the Museum) writes:*

In 1836 the Herefordshire Natural History, Philosophical, Antiquarian and Literary Society was formed. This later changed it's name to the Literary, Philosophical and Natural History Institution of Hereford. At a meeting in 1851, the Institution was re-born as the Woolhope Naturalists' Field Club, and no further changes of name took place.

Money for the building of a museum was offered by the then President of the Club, Mr (later Sir) James Rankin, during his retirement speech of February 22nd 1870. Matters progressed and on 2nd May 1871 a joint Woolhope Club / Town Council committee resolved "to consider the offer of J Rankin, Esq., to purchase a site and erect suitable buildings for a Free Library and Museum in the City of Hereford in connexion with the Woolhope Naturalist's Field Club." A site was found, purchased and the Museum and Library built, opening to the public on 8th October, 1874.

Initially the museum's collections, mainly composed of geological and botanical material, were those formed by the members of the Woolhope Club. It is likely that the bulk of this material, as far as can be ascertained, is still contained within the Museum's collections; this is certainly true for the herbarium. There are some specimens from further afield, including Orkney fish collected during the 1970s and trilobites from the Builth-Llandrindod area and around Solva, Pembrokeshire, collected by J. Cooter. The collection is not large, containing in the region of 4,000 specimens. It is hoped that this will expand once the Museum Service becomes part of unitary Herefordshire and with influx of voucher material from the RIGS Group.

Stensio made a study of the Museum's Cephalaspids when preparing his 1932 monograph *Cephalaspids of Great Britain* (British Museum, Natural History). This resulted in six specimens figured by Stensio being requested by and, after agreement of the Public Library Committee, given to the Natural History Museum. There are cited specimens still in the Museum's collection. A specimen labelled *Pteraspis ?rostrata* was recently recognised, by Peter Tarrant, to be *Larnovaspis stensioei*; possibly the only British example. It is the mould of the dorsal shield complete with dorsal 'desk', orbital plates and rostrum with pineal organ.

Elsewhere in the collection there are a few gems - some brittle stars from Church Hill, Leintwardine, a small number of 'Dudley' fossils and some nice specimens brought to light when the railway tunnels were being driven through the Malvern area - a superb, almost complete, specimen of the trilobite *Sphaeroxochus mirus* Beyrich, for example.

Only the fossil fish (s.l.) and trilobites have been checked by experts; the rest of the material varies in quality of identification, and the standard of field data also varies greatly. Currently only the trilobites (1996) and fish (s.l.) (1908) are catalogued.

Non-palaeontological material is rather eclectic including about 300 mineral specimens, a half-

dozen crates of petrological specimens with very poor field data collected by Mr N. Dove, a previous curator, and a collection of local soil samples

**First UK RIGS Conference: 1st - 3rd September, 1998.**

The first UK RIGS conference is to be held at University College Worcester this year, and the following press release was sent out in February:

With the RIGS initiative forging ahead there are many issues that are the subject of debate and there is clearly a need for those making policy and those implementing it at local level to have a forum. It is hoped that the conference may give rise to an improved structure to the movement.

The issues to form the basis of the conference programme are:

- The need for a RIGS Development Officer and adequate support for RIGS Groups.
- The desirability of recording site information on computer using relevant software and the means of purchasing such a system.
- The criteria used for the assessment of RIGS
- Funding and sponsorship in general
- Safety and insurance and the requirements of the Health and Safety at Work Act.
- A workable relationship with quarry and landfill operators and the safeguarding of exposures and access.
- The need for a national archive centre for all recorded sites, associated data links and information retrieval.
- Relationships with County Planning Departments and the significance of County Minerals and Waste Disposal Plans.
- Conflicts with consultants and the supply of information to the private sector.
- The use of GIS (Geographical Information Systems) in the recording and information processes.
- The purchase and maintenance of sites, the production of guidebooks, the construction of trails and the use of information technology.
- Is the RIGS movement primarily about recording or conservation?
- Links with educational establishments and the public.

Problems of site access, difficult landowners, site boundary limits and long term management agreements for RIGS.

The conference will provide a lecture programme, workshops, business displays, field trips and social events. Excellent conference and residential facilities exist on the Worcester campus and an extensive section of the geological column is represented nearby.

A preliminary notice has also been distributed to all RIGS Groups and associated organisations, and includes the following additional information:

RIGS delegates fees will be heavily subsidised - all-in cost of £20 (or thereabouts) each, for up to 2 delegates from each Group. Travelling expenses will be reimbursed for RIGS delegates.

The conference is being sponsored by University College Worcester, English Nature, The Wildlife Trusts, the Geologists' Association, Worcestershire County Council, Herefordshire County Council, the Environment Agency and Scottish Natural Heritage.

Space is available, free of charge, at the exhibition for both poster displays and interactive stands. Anyone wishing to receive further information regarding the programme, or attend the conference,

or reserve exhibition space (poster or otherwise) should make contact as soon as possible.

### **Funding for National RIGS Work**

The following short article was published in the February 1998 issue of RIGS Briefing:

Following work done last year on developing and agreeing a development strategy for RIGS, we are delighted to announce the financial support for key parts of that strategy.

This has come from the ARC Environment Fund, recently set up to distribute landfill tax credits arising from the ARC's landfill operations. The support will enable the re-appointment of a RIGS officer for a year, and the production of a handbook combining good practice reports and practical guidance for RIGS Groups and others involved in Earth heritage conservation. Part of the officer's job will be to secure further resources to enable other parts of the development strategy to be implemented.

All of this is especially timely with major events such as Minerals 98 and the UK RIGS conference coming up.

Hereford & Worcester RIGS Group information update:

Since the publication of Newsletter Issue 2, site information has been provided by the following:

- English Nature
- Rollo Gillespie
- Hereford City Museum (J. Cooter)
- Dr R. J. King
- Les Morris
- Rendell Geotechnics (M. Lee)
- Peter Thomson
- Worcester City Museum (R. Roden and G. Phillips).