Newsletter

Vol.6 No.2 Winter 2008

Keeping you up to date with local and national RIGS activities

UKRIGS GEOCONSERVATION ASSOCIATION

In This Issue:

E D I T O R I A L

Hi Everyone,

A Happy Christmas to you all. Vic and I apologise for the erratic production of the UKRIGS Newsletter this year. It has been due to illness and a heavy workload. However next year should improve.

Vic Page my assistant editor for the last four years has decided to step down and I would like to publicly thank her for all her patience and application in the production of the newsletter. We all wish her well in the future.

Geoconservation moves forward and the UK is leading the world. The production of the new book called History of Geoconservation shows that this area of Geology has become of age so to speak. We also look forward to a National GAP next year and a Natural England conference on climate change and how it will affect geoconservation and geodiversity. So there is much movement on all fronts.

Again I wish you a prosperous New Year and look forward to meeting many of you over the coming year.

Cynthia Burek

Hello and goodbye to all those who read this UKRIGS Newsletter series. I hope you enjoy the newsletters and find them interesting and informative and most of all, supportive of your work. Sharing experience and ideas can be so encouraging, propelling the important work of RIGS Groups forwards, so thank you to the many geologists who have contributed articles, reports and notices to the newsletter so far. Please keep the contributions coming in. I believe the newsletter will grow from strength to strength in fresh hands, and hope it will continue to be shaped and appreciated by you the reader.

Thank you to Cynthia for being such a wonderful boss.

Happy Christmas all,

Vic

GAPS

UKGAP

Since the first meetings in October 2006, when the idea of a Geodiversity Action Plan for the whole of the UK was first being grown, through 2007 when interest spread through the geological community and a draft plan was developed, to 2008 when the plan was revised and finalised after thorough consultations, we can finally and proudly anticipate the launch of the first national geodiversity action plan in 2009. The UKGAP, like LGAPs, will provide a framework for enhancing the importance and role of geodiversity, only now in a national way. Please read the full report attached to this issue.

Cheshire Region LGAP

The CrLGAP is being revised and updated, with new photos and some revised objectives. A re-launch is intended in order to bring it again to the forefront of the minds of those who need to use it, and to re-engage and re-interest people in this important work. Thanks go to Amanda Williams and the team for their hard work.

West Midlands LGAP Support

Natural England West Midlands Delivery Agreement 2008-9 includes a whole page on Geodiversity with Helen Stace the theme leader. It starts by stating “Natural England seeks to secure the conservation of our geological heritage for future generations not only for research but for education and enjoyment by all. We will support local and regional Geodiversity Groups in the formulation and implementation of LGAPs that cover the survey, identification and protection of RIGS”. It is really good to see this support in print.

MAPS

Geological Maps of Wales

British Geological Survey now has full digital coverage of geological maps of Wales except Map 180 Knighton. It is producing a national minerals map of Wales, which will cover coal etc. The Aggregate Fund is producing one for sands and gravels etc. They should be completed by 2010. They are not site-specific just generic. Peat is not being considered a mineral in this particular scenario.

LOCAL GROUPS

Leicestershire and Rutland Wildlife Trust Bid

A forthcoming meeting of the Leicestershire and Rutland Wildlife Trust Geological Subcommittee will discuss a bid for ALSF funding in the next round of bids starting in April 2009.

Website for Yorkshire and Humber Forum

Yorkshire and Humber Geodiversity Forum is working towards the creation of a website.

West Yorkshire Geology Trust This Year

WYGT is a small but active group of volunteers promoting geodiversity in West Yorkshire. After a busy winter producing a draft LGAP and surveying many of West Yorkshire’s RIGS, we have been involved this summer in public events at countryside centres in the county. We have led many geology walks, organised through the five local authorities in our area, and also been involved in producing interpretation boards at three Huddersfield RIGS. This winter we plan to survey many existing RIGS to check that their boundaries are accurate. Some new sites have been suggested in Wetherby and Todmorden as having geodiversity potential so we hope to visit and survey them to see whether new designations should be made. Finally, we should be able to see whether the RIGS in the county represent all the stratigraphic units. We have also embarked on fund-raising for projects at Otley Chevin and Haworth and wait to see if we can go ahead with geological and heritage trails, leaflets and exhibitions in both places.

GEODIVERSITY PARTNERSHIPS

Limestone Pavement at Malham Cove, North Yorkshire

The East Midlands Geodiversity Partnership

The group hoping to form the East Midlands Geodiversity Partnership finally arranged a meeting for the 6th November 2008, where full discussions on creating the new partnership took place. With a favourable response, we will be arranging a second meeting very soon to discuss how to spend the £10,000 promised by Natural England.

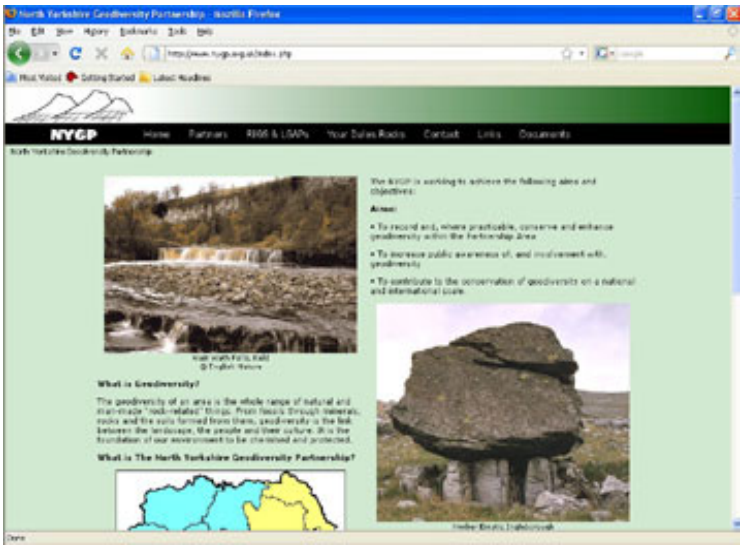
North Yorkshire Geodiversity Partnership, Brief History

Towards the end of 2004 informal approaches were made to a variety of potential partners considered to have an interest in Earth science conservation in North Yorkshire. Following those initial approaches, in March 2005, the British Geological Survey, English Nature (Natural England), Hanson Aggregates, Harrogate Borough Council, Nidderdale Area of Outstanding Natural Beauty, North Yorkshire County Council, Tarmac, and the Yorkshire Dales National Park Authority agreed to form the Steering Group of the North Yorkshire Geodiversity Partnership. The British Cave Research Association, and the University of Leeds joined the Partnership in 2006.

The NYGP is also the steering group for a RIGS Group affiliated to UKRIGS. To avoid potential overlap, discussions were held with Mike Windle, the Director of the North East Yorkshire Geology Trust to establish the boundaries of the Partnership's area. The 'Your Dales Rocks Project', which includes the Yorkshire Dales National Park and Nidderdale AONB, only covers the western section of the Partnership's area.

In October, 2005 the NYGP was successful in obtaining an ALSF grant to produce a Draft Local Geodiversity Action Plan for the Your Dales Rocks Project Area, together with an information leaflet, both of which were published in March, 2006. The final LGAP was launched in May, 2007, with its printing costs being met by the Yorkshire Dales National Park Authority. A further successful ALSF bid in October, 2007 enabled the Partnership to undertake a geodiversity audit of the Your Dales Rocks Project Area, with the report being published in March, 2008.

In addition, grants from Natural England (English Nature) have been used to create the Partnership's website (www.nygp.org.uk and www.yourdalesrocks.org.uk), and to obtain 1:50,000 and 1:250,000 digital map data from the British Geological Survey.



NYGP Website, thanks to grants from English Nature

The British Geological Survey, North Yorkshire County Council, and the Yorkshire Dales National Park Authority have all contributed co-funding towards the two ALSF projects. Currently, the Partnership is recording and assessing potential RIGS. Depending on funding being available future projects will include the preparation of RIGS site management plans, interpretative materials, and the preparation of a Local Geodiversity Action Plan for the Vale of York.

RIGS AUDITS

South Wales RIGS Audit

The British Geological Survey, Cardiff Office, in partnership with the South Wales Geologists' Association, the South Wales Group of the Geological Society and Cardiff University, and with the active support of the National Museum and Gallery, Countryside Council for Wales, Fforest Fawr Geopark, WYG Environment consultancy and many individuals, is undertaking an audit of Regionally Important Geodiversity Sites across South Wales, so completing the pan-Wales audit of important geological sites, and with the inclusion of the Coalfield, covering arguably the "hardest" area to deal with!

With a major funding component from the Welsh Assembly Government administered Aggregate Levy Sustainability Fund for Wales, this three year audit will cover the area of eastern Carmarthenshire, south Powys and the former counties of Glamorgan and Gwent. During the lifetime of the project, it is anticipated over 1000 potential sites will be assessed in the field.

Site audits are currently underway in Cardiff County Borough, Rhondda Cynon Taff and on the Gower Peninsula, and desk studies to identify potential sites for assessment are underway in Newport and Fforest Fawr in the first instance. There is still a long way to go! For further information or to get involved by helping to audit the many RIGS across South Wales, please contact Dr Adrian Humpage or Laura Williams, BGS Cardiff Office, Columbus House, Greenmeadow Springs, Tongwynlais, Cardiff CF15 7NE, Email: bgswales@bgs.ac.uk Tel: 029 2052 1962.

Welsh RIGS

The Number of RIGS for Wales is now over 540 excluding those identified in SW Wales which will be notified at the end of the audit in April 2009. At present Central Wales has notified 130 and SW Wales 93 to date.

Geodiversity of London Report

The completion and circulation of the draft report on the Geodiversity of London has cleared the way for the next stage of formalising our potential RIGS sites. The modified UKRIGS Field Audit Recording Sheet, used in the report, will aid us in this process. We intend to revisit the important sites to check the accuracy of the BGS survey and bring our visit schedule up to date. BGS did not involve us in any survey work. The plan is to carry out these visits on a regular basis approximately every other Tuesday. Using the report's GLA numbers the priority for the visits is as follows:

High Priority: 4,7,17,23,24,30,31,32,35
Low Priority: 1,3,6,33
Not Justified: 8,9,10,14,22

If you have not had a copy of the report or would like a paper copy rather than a disc please contact John.Onell@london.gov.uk.

Please contact John if you would like to help in any way.

ACROSS THE UK

Carboniferous limestone

Granite

Old Red Sandstone

Volcanics / Basalt

Connemara Marble

Chalk

Local Sites Partnerships In England

As part of the implementation of Defra's Local Sites Guidance on their Identification, Selection and Management [published in 2006], Local Sites Partnerships are being set up in England, involving Local Authorities, Wildlife Trusts, RIGS Groups, Local Record Centres and others. If RIGS Groups are not yet involved they should make contact with their Local Authority and Wildlife Trust.

Welsh Geoparks

GeoMôn Geopark is to be resubmitted at Christmas 2008. It is now a limited company.

Fforest Fawr Geopark has been given a green card to carry on. It was successfully revalidated in September recognizing the Geopark's success in establishing strong links between a variety of organisations from both the public and private sectors in order to develop sustainable tourism in the western half of Brecon Beacons National Park. They have produced the first two of 20 Geotrails costing £1 each and only 2500 of each will be produced.

A Stone for Ireland and Northern Ireland?

Many regions (countries, provinces, states and districts) have designated a special stone to represent themselves. Examples are Norway (Larvikite), and Wisconsin (Granite)… Such designations draw attention to the stone resources of a region, the landscape which underpins them and the geoscience which interprets and gives them special significance. On the occasion of the International Year of Planet Earth (2008), the Irish National Committee has been requesting views on whether it should seek the designation of a stone or stones and, if so, which one (s). The Geological Survey of Ireland and the Geological Survey of Northern Ireland are considering the suggestions and recommendations put forward.

Suggestions for Ireland have been:

- **Carboniferous limestone**, because of its ubiquity in the natural and built landscape of the country, because it forms a uniting blanket across the NW/SE Iapetus suture, because of the wealth of interesting fossils found in it, and because its decorative use has traditional local heritage such as Kilkenny Black or Carlow Blue.
- **Granite**, because it is found in both the east and the west of the country, because it is a distinctive, building and decorative stone and because it marks the welding of two halves of Ireland.
- **Old Red Sandstone** (ORS), because it represents the first rocks formed after Ireland's amalgamation, deriving from a huge mountain chain.
- **Volcanics**, because they represent bringing the two halves of Ireland together: Lambay porphyry was a pre-cursor to the Iapetus closure.
- **Connemara Marble**, because of its obvious aesthetic value and decorative use in buildings, however it is only found in the west of Ireland.

Suggestions for Northern Ireland have been:

- **Basalt**, because of the Antrim Plateau and the Giant's Causeway, and because it represents Ireland's youngest volcanic activity.
- **Chalk**, because of its presence in the prominent white cliffs around the Antrim and Causeway coast, in scarp faces east of Limavady, Co. Derry and outcropping in hills west and north of Belfast, because it is quarried in Ballintoy and Larrybane Head to be burnt in limekilns for use as agricultural lime, and because it was formed in subtropical latitudes. *(photo John Kelly).*

EXEC NEWS

UKRIGS Websites

The latest website usage statistics for the main UKRIGS website www.ukrigs.org, and the Earth Science On Site website www.ukrigs.org.uk/html/esos.php show that around 4,500 visitors accessed the sites over the last six months from April-October 2008. Over 90% visitors are from the UK, however we are getting more visitors from outside of Europe, namely from India, Israel and Nigeria. The downloads are being well used, as are the individual site pages on ESOS with the most popular being Tedbury Camp. New site pages to ESOS are Boulmer Foreshore and Snableazes & Cullernose. Below is a table showing how the ESOS pages are used:

Page	Page Views	Time on Page
Tedbury Camp	989	00:01:18
Home Page	860	00:00:32
National Stone Centre	806	00:00:52
Park Hall Country Park	745	00:01:01
The Ercall	730	00:01:20
Mosedale	614	00:01:54
Meldon Valley	523	00:02:24
Barrow Hill	514	00:01:35
Black Rock	497	00:00:53
Dryhill Nature Reserve	497	00:00:48
Ryton Pools	462	00:01:30
Barr Beacon	443	00:01:06
Apes Tor	387	00:01:02
South Elmsall	229	00:00:56
Site Map	165	00:00:16
Snableazes & Cullernose*	128	00:01:11
Boulmer Foreshore*	72	00:00:48

* - these sites have not been available for the full 6 months

CHRISTMAS GEOLOGY

If you ever do spend Christmas on Christmas Island, make sure Santa knows where to land his canoe of presents for you, as there are actually two islands called "Christmas Island". One is a tiny island near Java, in Australian Territory, while the other is in the middle of the Pacific Ocean. Both are atolls: ancient seamounts, with the volcanic edifices long since sunken under the sea and fringing coral reefs grown over their tops.

The Australian Christmas Island was named first, by Captain William Mynors of the British East India Company when he arrived there on Christmas Day 1643. Most of the surface rock is limestone from the coral reefs, and large deposits of phosphate encouraged a century of mining from 1890.

Captain James Cook of the British Navy 'discovered' the one in the Pacific Ocean over 100 years later on Christmas Eve 1777. This island has the largest coral atoll in the world, and forms part of the Line Island Group; a linear chain of volcanic islands and seamounts that was, until fairly recently, thought to be analogous to the Hawaiian-Emperor chain of hotspot volcanoes. However, unlike Hawaii, the rocks of the Line Islands do not become progressively older with distance. Instead, there were two major episodes of volcanism, each lasting about 5 million years, with about 8 million years between them. The most recent eruptions occurred about 70 million years ago. If not formed by the Pacific Plate moving over a hotspot, what causes such linear island chains as the Line Islands? The current thinking is that they are related to the broad upwarping of the crust in that area - called the South Pacific Superswell. The mantle beneath the swell is hotter, perhaps due to upward convection in the region, and melting (and thus volcano formation) occurs at pre-existing, sometimes linear, weak zones in the crust.

Based on an article from the Hawaiian Volcano Observatory. Image drawn by HVO alumnus Dr. Ken Hon.

PUBLICATIONS

Lothian and Borders RIGS Group
www.edinburghgeolsoc.org

Joppa Shore
A geological walking trail along the shore of Joppa near Edinburgh. From the lower coal measures to the castlecary limestone, the trail tells the whole story of Joppa's geological history.

The Geology of The Water of Leith
www.waterofleith.org uk
A journey through time to investigate why the Leith flows along the route that it does and explain the local landscape. Also includes the Water of Leith Visitor Centre information.

Craiglockhart & Edinburgh's Seven Hills
A description of the geology, glaciers and volcanoes, that created each of the seven hills surrounding Edinburgh. Some of the hills are Local Nature Reserves, RIGS or SSSIs and all of he hills have visible and interesting rock features.

Warwickshire Geological Conservation Group
University of Warwick Campus Geological Trail
www.wgcg.co.uk

An informative booklet describing the rocks and history of Warwick Campus, with many examples of the local landscape being linked to the built environment.

North West Highlands Geopark
Scotland's First European Geopark
www.northwest-highlands-geopark.ork.uk

A visitors guide to the Geopark – including a well explained geological map of the area and a brief history, where to find information and interpretation panels, walks and features, and things to do and see.

Bedfordshire & Luton Geology Group
www.bedsrigs.org.uk, 01234 353323

Cretaceous Chalk: Dunstable & Whipsnade Downs
An attractive and informative information leaflet on the geology of the Downs, tracing its history from Gault Clay to sheep grazing.

Cretaceous Chalk: Barton Hills
Another addition to the "Bringing Landscape to Life" series, this leaflet contains a trail guide, taking the walker by clay, chalk, flint and soil.

Fforest Fawr Geopark, Geotrail Series
www.fforestfawrgeopark.org.uk

Cribarth Geotrail
One of a series of 20 proposed themed walks in Wales' first Geopark. The content of the fold out leaflet is in a very user-friendly format with guides to timing, distance and difficulty of the trail, along with clear photos, diagrams and maps. Novices will appreciate the succinct explanations on how to identify and interpret the geological features they see. Pros will enjoy the thoughtful choice of route and features. This trail starts and finishes at Craig-y-nos Country Park.

Mynydd Illtud Geotrail
The user-friendly format continues with a route past old red sandstone, glacial deposits and Traeth Mawr, an SSSI. The trail also demonstrates how sediments can preserve a record of climate change.

CELEBRATIONS

2008—International Year of Planet Earth

Do not be fooled! Just because 2008 is coming to an end does not mean that the International Year of Planet Earth is over. This particular 'year' runs from January 2007 to December 2009. Many countries are still joining in to make Earth safer, healthier and wealthier for our children.

41st ESTA Conference

This September saw the Earth Science Teacher's Association get to grips with the theme of "global issues". Talks on climate change were well received by the many delegates at Liverpool John Moores University.

The GA 150th Anniversary Festival of Geology

To compliment their many events and outreach activities this year in celebration of its 150th Anniversary, the University College London played host to the Geological Associations annual Festival of Geology. Exhibits and interactive displays abounded, talks from renowned geologists astounded, and competitions for geological photographs and posters lauded the field.

DIARY DATES

8th January – The 2004 Boxing Day Earthquake and Tsunami, speaker Dr Ian Stimpson. 7.30pm, North Staffordshire Group of the Geologists Association, 01630-673409

21st January – Australian Rocks, Life and Death of a Mountain Range, speaker Brian Ellis. Grid Ref. SP288 719, Kenilworth, 7.15 for 7.30pm, Warwickshire Geological Conservation Group.

26th January – North Sea Oil, speaker Les Riley. "Bugs and Black Gold; Paleontology and its role in hydrocarbon exploration and production - examples and applications from the North Sea and Offshore Eastern Canada." Samples of drilling cores and equipment. Dudley Museum, 7.30 for 8pm start, Black Country Geological Society, 01384 815575

5th February – Silurian Soft-Bodied Sensations, speaker Prof. David Siveter. 7.30pm, North Staffordshire Group of the Geologists Association, (01630-673409

18th February – Formation of the Straits of Dover, speaker Dr Sanjeey Gupta. Grid Ref. SP288 719, Kenilworth, 7.15 for 7.30pm, Warwickshire Geological Conservation Group.

23rd February – Natural Man-Made Earthquakes in the UK, speaker Prof. Peter Styles. Mining and past mining problems, pollution and its migration, forensic, archaeological and hydrogeological studies. This talk will also touch on the Dudley Earthquake. Dudley Museum, 7.30 for 8pm start, Black Country Geological Society, 01384 815575

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NATURAL ENGLAND

University of Chester

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It is always interesting and enjoyable to read about RIGS groups and their work.
To share your news, please contact Prof Cynthia Burek, RIGS Newsletter Editor, c.burek@chester.ac.uk
Views expressed in this newsletter are of the individual authors and do not represent opinions of UKRIGS.