

West Midlands Regional Group

# Newsletter

January 2014



## PHOTOGRAPHIC CONTEST 2014



Take part in the 2014 Photographic Contest.

After a successful first year, the West Midlands Regional Group in joint partnership with the Black Country Geological Society is delighted to announce the re-launch of the Photographic Contest in 2014.

The theme for this year is:

**“WHAT LIES BENEATH OUR FEET”**

The theme is open to individual interpretation but entries should have some geological content. You can enter up to **four photographs**, electronically or by post.

**The deadline for entries is midnight Sunday 31<sup>st</sup> August 2014.**

All entries will then be collated and an independent judging panel will review all entries in early September 2014 and select the 10 best based on their composition, technical ability, appeal, geological content and originality.

The judges will then review all 10 photographs and select the 3 overall winners.

**First Prize: £200**

**Second Prize: £100**

**Third Prize: £50**

All entries will then be displayed as an exhibition at Dudley Museum & Art Gallery.

You might choose to photograph some unusual geology, a thin section or core sample, work in the geosciences, underground caves (if you like pot-holing) or just take beautiful shots of geological landscapes the world over.

Whatever you decide to photograph, please do it responsibly. Take care not to disturb any animals or damage the environment and always follow local laws and the countryside code.

**The great thing is, we're opening it to all UK residents who live within the postal district of the West Midlands Regional Group - which we define as post-codes starting B, CV, DY, HR, ST, SY, TG, WR, WS and WV.**

So this year why not get all the family involved. Entrants under 12 years of age need to have written parent or guardian consent to enter.

It is first and foremost a bit of fun and is aimed primarily at amateur photographers. It isn't open to professionals and because we want something original, entries must not have won other competitions.

The Judges are:

Adrian Durkin  
*Exhibitions Officer, Dudley Borough Council*

Jonathan Clatworthy  
*Director of the Lapworth Museum of Geology*

Bill Gaskarth  
*Chartership Officer, Geological Society London*

For full Terms and Conditions, and information on how to submit your entries, please follow

West Midlands Regional Group:

[WWW.GEOLSOC.ORG.UK/WRMG](http://WWW.GEOLSOC.ORG.UK/WRMG)  
[GEOLSOC\\_WMRG@LIVE.CO.UK](mailto:GEOLSOC_WMRG@LIVE.CO.UK)

Black Country Geological Society

[WWW.BCGS.INFO](http://WWW.BCGS.INFO)  
[SECRETARY@BCGS.INFO](mailto:SECRETARY@BCGS.INFO)

*Article by Dan Welch (Secretary)*

## TALK UPDATE

### The Helpston Groundwater Remediation

Leon Warrington (Hydrogeologist, Hydrock Consultants Ltd)

(Attendance: 34)

Leon gave a very interesting talk about the long-term remediation of two former limestone quarries near Peterborough, which have been infilled with a mixture of domestic and industrial waste, including some 40 tonnes of the herbicide mecoprop.

Ongoing for the past 10 years, Leon has been fortunate enough to be involved with the project since graduation in 2007 and his shortened presentation on the topic won him 3<sup>rd</sup> place and a small monetary prize in the 2013 Colin Knipe Early Career Award.

From the outset, Leon stressed the importance of a robust Conceptual Site Model which, above all else, should be based on a good understanding of the geology of the project area. Particularly where local variances in the geometry and properties of nearby faulting systems can have a dramatic impact on the generation and migration of contaminant plumes.

An overview of the numerous remedial measures trialled at the Site was then given and the limitations of active pump and treat system elaborated upon.

Overall, a most interesting talk on a very practical topic, enjoyed by all in attendance, followed by an equally vibrant question and answer section.

*Article by Dan Welch (Group Secretary)*

### New Developments in Ground Gas Risk Assessment

Steve Wilson (Technical Director, EPG Ltd)

(Attendance: 84)

Steve Wilson from EPG Ltd. gave a very interesting talk about his work in the risk assessment of ground gases. The talk included a large number of Steve's own photographs that demonstrated the wide range of projects undertaken by his consultancy. Steve concentrated on the many technical issues that must be considered when dealing with ground gases, not least in landfill sites. With respect to hazardous gases (e.g. CO<sub>2</sub>, CH<sub>4</sub> and H<sub>2</sub>S) and the associated design of remediation strategies, Steve told us that to comply with current planning policy and the Building Regulations, any development proposal on or near land affected by gas emissions must be supported by a risk assessment submitted to the local planning authority by the developer (or his consultant). For instance, the presence of up to 10% v/v CO<sub>2</sub> can be a common feature of glacial till terrain in NW England and needs to be carefully considered. Concentrations of ground methane can also be influenced by peat layers within sand and gravel or alluvium deposits.

A comprehensive risk assessment needs to consider water levels, which should be monitored by both spot and continuous measurements. Seasonal variations might also change assumptions made, which in turn could change the level of assumed risk. Ground gases often dissolve in water and so aqueous testing should be concurrent with ground gas assessments. Steve outlined issues associated with gas membranes in landfill sites and outlined a number of factors to consider. Are taped joints always verified? Have they been pressure tested to a sufficiently rigorous standard? Are tracer and minor gases monitored as well as the major components? Steve reminded us that there is still a quality issue with many gas membranes and that CIRIA are due to publish guidance in 2014.

Steve finished his talk by conducting a lively Q+A session, when a number of professionals in the audience were able to "pick his brain". Steve responded by passing on his knowledge and experience until the questions ran dry! A very good evening was had by all, so many thanks to Steve for taking time out from his busy consultancies to come down from Warrington for the evening.

*Article by Clive Roberts (Group Chairman)*

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## Developments at the Geological Society & Oil and Gas Exploration

Dr Jonathan Turner (Council Member, Geological Society London)  
(Deputy Head of Exploration Geology, BG Group)

(Attendance: 28)

This month's talks were given by Dr Jonathan Turner, a structural geologist from BG Group working in oil and gas exploration. Jonathan delivered two interesting talks; the first detailed the developments at the Geological Society and the second provided information on the current game changers within oil and gas exploration.

The first of Jonathan's lectures was on developments at the Geological Society. As a young professional working towards Chartership with the Geological Society, it was great to hear that it is going from strength to strength. Financially they are in a strong position, which has meant that membership fees have undergone little, if any, increase at all. Furthermore, this has also meant that the Society has been able to put on more lectures and events, all of which provide excellent networking opportunities. It was also encouraging to hear that the Society is increasing and improving their online and electronic services, which have meant publications, newsletters etc are much more widely available to their members.

Jonathan's second talk provided an extremely interesting insight to some very innovative techniques being used in oil and gas exploration. He firstly detailed the use of deep water drilling, a technique carried out in frontier basins that have undergone intense rifting. It is often carried out in exploration wells in areas with depths of greater than 1500m. The second game changer mentioned was *Unconventionals*; these include shale gas, shale oil, tight gas sands and coal seam gas. Methods by which these are obtained are horizontal drilling and fracking, which work on the basis of unlocking the potential of low-permeability reservoirs. Overall, Jonathan delivered two very interesting and informative talks.

*Article by Daisy Daniell (Member)  
Graduate Environmental Scientist, Atkins*

## SOCIAL MEDIA

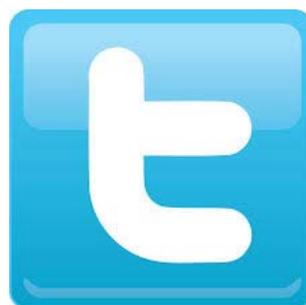
Don't forget to join our groups on **Facebook** and **LinkedIn**.

We try and keep these sites up to date with information regarding meetings and other relevant interesting geological discussions. Both have their pros and con's; Facebook provides a better events listing, though LinkedIn provides a better platform for discussion.

Log on to [www.geolsoc.org.uk/wmrg](http://www.geolsoc.org.uk/wmrg) and follow the links on the right:



and.....Coming Soon!



# QUIZ ANSWERS

In our last Newsletter, Graham Worton (Local Societies Liaison Officer) set you a challenging quiz.

Here are the answers:

1. Name 4 clay minerals? (4)  
**Koalin, Montmorillonite, Chlorite, Smectite, Illite, Bentonite** (can you name others?)
2. Who is the Scottish popular TV scientist who works on geological hazards and human history? (1)  
**Ian Stewart**
3. Name two counties that contain the Whin Sill and what rock is it mainly made of? (3)  
**Durham, Northumberland and Dolerite**
4. Name a place in the UK where is shale gas exploration currently taking place? (1)  
**Lancashire, Yorkshire, South Wales, South Downs** (do you know others?)
5. How far below your bottom is the outer core/ lower mantle boundary in km's? (1)  
**2900km**
6. Name one characteristic of a 'mature sediment'? (1)  
**Well-sorted, Well-rounded, Stable or Hard Mineralogy**
7. What is the actual rock type that architects call Blue pearl? (1)  
**Monzonite/ Larvikite**
8. What size expressed as mm define, clay, silt, medium sand and Boulders? (1,1,1,1)  
**<63µm, 63µm to 125µm, 250µm to 500µm, >256µm**
9. Where is fingals cave? And who composed a classical music piece named after it? (1,1)  
**Isle of Staffa, Mendelsson**
10. To which geological hero does the rhyme 'she sells seashells by the seashore' refer? and, What place is she most associated with? (1,1)  
**Mary Anning, Lyme Regis**
11. What does the name Velociraptor mean in English? (1)  
**Fast Thief**
12. In what city was the world's oldest geological society founded, when and what is it called? (1,1,1)  
**London, The Geological Society, 1807**
13. What is it (below)? Where can you find it? What is its chemical formula? (1,1,1)  
  
**Desert Rose/ Gypsum/Baryte, Arid sandy conditions, CaSO<sub>4</sub>.2H<sub>2</sub>O**
14. What do the acronyms HSE and COSHH stand for? (1,1)  
**Health and Safety Executive, Control of Substances Hazardous to Health**
15. Name three things about a rock or soil slope that contribute to its stability or instability? (1,1,1)  
**Slope angle, water table, nature of jointing, direction of dip, any engineering intervention**

*Questions and Answers by Graham Worton (Local Societies Liaison Officer)*

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# FUTURE TALK ABSTRACTS 2014

## Chartership Evening

Bill Gaskgarth (Geological Society London) and Dan Jefferies (Group Website Officer)

Tuesday 11<sup>th</sup> February 18:00 for 18:30  
Lapworth Museum of Geology, Birmingham

The numbers of people applying for Chartership (CGeol and CSci) continues to grow.

As part of this annual evening, Bill will be on hand to provide his guide to the GSL's Chartership process to potential Applicants (present and future). Dates for next years CGeol applications are as follows:

Application Deadline	Location	Interview Date	Election Date
3 <sup>rd</sup> March 2014	Manchester	May 2014*	11 June 2014
30 <sup>th</sup> June 2014	London	9 September 2014	24 September 2014
1 <sup>st</sup> September 2014	Birmingham	November 2014*	26 November 2014

The talk will deal with all aspects of an application and will provide advice on how to avoid the common problems which have caused defer recommendations.

Emphasis will be on:

- CGeol versus CSci
- Eligibility to apply versus 'readiness' for Chartership
- The need to focus on demonstrating Geological competencies
- The role of the Sponsors
- Presentation/selection of supporting documents

Bill will also mention the *new* Mentoring Scheme; the *new* application route for those with 20+ years' relevant experience; Company Training Scheme Accreditation and, provide an updated on a potential CGeol Logo for use on reports/correspondence.

Prospective CGeol candidates will likely to get a significant amount of useful information from this lecture to guide them through future Chartership applications.

So if you are considering; applying for Chartership through the Geological Society, mentoring someone who is, or would like to contribute to the society by becoming a Mentor or Scrutineer, we would recommend that you attend this informative evening.

## Advanced Technologies for Contaminated Site Remediation

Dr Jeremy Birnstingl (Managing Director, Regenesis)

Tuesday 11<sup>th</sup> March 18:00 for 18:30  
MA Building, University of Wolverhampton



*Dr. Birnstingl is the Managing Director of Regenesis Ltd. and is responsible for the growth and development of Regenesis across Europe. Since joining Regenesis in 2002, Dr. Birnstingl has overseen the introduction and commercial use of five new technical products within the UK and other European countries for in situ aquifer restoration under varied national regulatory and permitting regimes. These include products for aerobic and anaerobic bioremediation of both fuels and chlorinated solvents, immobilization of toxic metals, and in situ chemical oxidation of organic contaminants. Prior to this role, Dr. Birnstingl was European Technical Manager for Regenesis, responsible for remedial feasibility assessment and application design of European remediation projects using Regenesis products, client technical support, and European establishment of Regenesis.*

*He has given numerous national and international seminars, university lectures and conference presentations in his technical area, and has published articles and papers in academic journals, conference proceedings and in the wider environmental subject literature.*

## From Mantle to Mineralisation: The Diary of a 60Ma Magma Chamber

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Brian O'Driscoll (Lecturer, Keele University)

Tuesday 8<sup>th</sup> April 18:00 for 18:30  
Lapworth Museum of Geology, Birmingham

Large igneous provinces (LIPs) are the physical manifestation of short-timescale melting events, often associated with continental break-up. The North Atlantic Igneous Province (NAIP) is one of the most intensely studied LIPs and formed during Palaeogene opening of the North Atlantic Ocean. The NAIP hosts a number of renowned layered mafic-ultramafic intrusions, believed to be the fossilised remnants of basaltic magma chambers and major focal points of magmatic activity at ~60 Ma. One of these, the Rum Layered Suite (NW Scotland), is widely regarded as one of a handful of classic examples of 'open-system' layered intrusions worldwide. The eastern portion of the Rum intrusion is constructed of 16 repeated coupled peridotite-troctolite units. Each major cyclic unit has been linked to a major magma replenishment event, with repeated settling out of 'crops' of olivine crystals to form the peridotite cumulate before arrival of plagioclase on the liquidus and formation of the troctolites in a similar manner. However, there are variations on the lithological succession that complicate this oversimplified model, including the presence of chromitite (>60 vol.% Cr-spinel) seams.

Field observations indicate that where present, chromitite seams are ~2 mm thick, are laterally extensive over 100's of metres and are typically restricted to the precise position of the unit boundaries. The significance of the latter observation is that their formation is intimately linked to major magma replenishment events within the Rum chamber! Of further interest, the chromitite seams host significant platinum-group element (PGE) enrichment (e.g., ~2 ppm Pt). Detailed petrological and geochemical investigations indicate that the chromitite seams, together with their attendant PGE mineralisation, have formed *in situ*. It also appears that Rum rocks are similar in composition to recently erupted picrites and basalts from Iceland and Palaeogene picrites and basalts from Baffin Island, Greenland and Scotland. This suggests that the North Atlantic Igneous Province magmas were collectively produced from a mantle source (plume?) with components that have remained relatively unchanged with respect to certain compositional features over the past ~60 Ma.



*Brian first graduated with a BSc in Geology from University College Cork, Ireland in 2003. His PhD (awarded by Trinity College Dublin, 2006) was supported by an Irish Research Council scholarship and concerned with the petrogenesis of layered mafic intrusions. Prior to his appointment as a Lecturer in Igneous and Metamorphic petrology at Keele University in 2008, he held a postdoctoral position at University College Dublin, Ireland, funded by an Irish Research Council for Science, Engineering and Technology scholarship.*

*Since 2011 he has held the position of Committee Member within the UK Metamorphic Studies Group, previously holding the role of Committee Member within the Volcanic and Magmatic Studies Group between 2007 and 2010. He is also a member of the Mineralogical Society of Great Britain and Ireland and of the Geological Society of London.*

## Monitoring Active Volcanoes

Prof. Hazel Rymer (Lecturer, Open University)

Tuesday 13<sup>th</sup> May 18:00 for 18:30  
MA Building, University of Wolverhampton

Volcano monitoring used to be the preserve of technicians in volcano observatories, or of academic researchers. Thanks to new technologies, Citizen Scientists are becoming increasingly involved in not only the acquisition of scientific data, but in the analysis and interpretation too. Spotting galaxies and identifying DNA sequences are well known targets for Citizen Science projects, but the environmental sciences and volcanology also benefit. Geophysical measurements need to be made over long periods of time in order to identify patterns related to sub-surface processes which may be relevant to eruptive activity. This is the type of study well suited to Citizen Scientists. This talk will illustrate the long term changes that have been seen at active volcanoes and what this tells us about the processes driving volcanic activity.



*Hazel Rymer is Professor of Environmental Geophysics at the Open University. She has worked in Central America, Iceland and Italy on active volcanoes and specialises in the micro-gravity and ground deformation measurements.*

## AGM - COMMITTEE UPDATES

### Announcing Two New Members



**Karen Dale**  
**(Committee Member)**

With a Masters of Geology degree, Karen works as a geo-environmental consultant for Hydrock consultants in Stoke. She has 10 years professional experience in projects concerned with the assessment, investigation and reclamation of Brownfield sites for commercial and residential property development; together with the investigation and assessment of potential Part IIA sites.



**Andrew Harrison**  
**(Black Country Geological Society Liaison Officer)**

Qualified with a BSc in Geological Sciences from Oxford Brookes University and a Masters in Applied Environmental Geology from the University of Wales, Cardiff. Employed as an engineering geologist in a geotechnical and geo-environmental capacity. Field trip secretary for the Black Country Geological Society (BCGS) and committee member on the Geological Society of London - West Midlands Regional Group (WMRG). Acting geoconservation officer for the BCGS and liaison with the WMWG. Regularly contribute geological articles to the BCGS and GeoConservation UK newsletters.

## AN ADVENTURE 65 MILLION YEARS IN THE MAKING



### LapSoc is back!

The University of Birmingham's Lapworth Society for Geology students has over recent years undergone a massive revival and in the interest of growing our network further we would love to have closer ties with the GSL and members of the WMRG.

If you have any ideas of events which both Groups may host, please contact [lapsocuob@hotmail.co.uk](mailto:lapsocuob@hotmail.co.uk).

We look forward to working with you in the future.

*Becca Fagan and Charlotte Fry*  
*LapSoc Presidents (2013/2014)*

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# THE LAPWORTH MUSEUM OF GEOLOGY REDEVELOPMENT PROJECT

As many of you may already know, there are potential changes in store for the Lapworth Museum of Geology at the University of Birmingham where most of our talks are held.

So, we have invited Jon Clatworthy, Director of the Lapworth Museum of Geology to give everyone a taste of what's afoot.

## Background to the Lapworth Museum

The Lapworth Museum contains the largest and finest geological collection in the West Midlands Region. The museum dates back to 1880 and the foundation of Mason College, the forerunner of the University of Birmingham. The current museum space was designed as part of the original University of Birmingham building by the architects Sir Aston Webb & Ingress Bell, and it is now Grade II\* listed, it also contains many original display cases, including some donated by Neville Chamberlain.

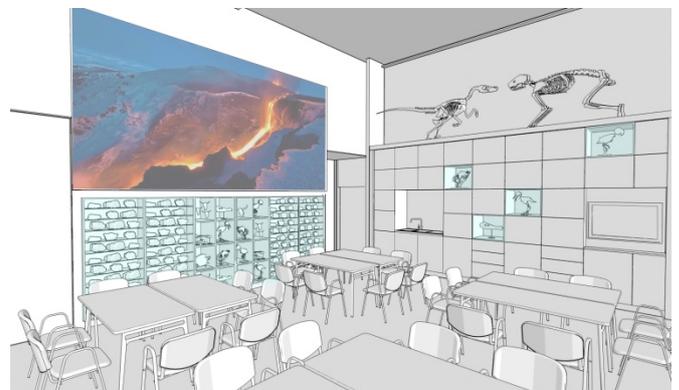
The collections comprise around 250,000 specimens spanning palaeontology, mineralogy and petrology. In addition, there are important collections of scientific instruments, 19th century geological models, zoology, archaeology and photography. The museum also contains a unique geological archive ranging from Lapworth's groundbreaking geological work; through to Professor Shotton's Top Secret military geology work, during WWII, in preparation for D-Day. In addition, the Lapworth has been working in partnership with Birmingham Museum & Art Gallery (BM&AG), which has resulted in the BM&AG geology collections being transferred to the Lapworth Museum on a rolling, long-term loan basis, to be hopefully included in this project.

## The New Museum Project

The Lapworth Museum Redevelopment Project will provide an outstanding geological museum and heritage asset both for the region and nationally. It will deliver a unique and greatly enhanced visitor experience providing increased public access to its extensive and diverse geological collections and associated information. The core of the museum will be restored building on its characteristic of being one of the few surviving, early C20th museums. At the same time, however, new display space will be provided and new interpretative methods will be embedded, in order to strengthen the visitor experience at all educational levels. A dedicated Museum *Schools Education Room* will be developed with a *Learning & Community Development Officer* providing greatly enhanced educational sessions for schools, colleges, adult and community groups.



Main Hall view



Education Room view

This project was successful with a Heritage Lottery Fund (HLF) Round 1 application which provided funds to advance the proposal in order to submit our final application in March 2014. The project will be part funded by the University, the Heritage Lottery Fund application, and fund-raising through the University's. The project will change the emphasis of the museum from a university departmental museum with some public engagement provision, to a public museum based in a university. It will however, continue to support teaching and research at the university, as it has done so for over 130 years.

## Museum audience

Current users of the museum encompass a wide range of backgrounds, including: university students, school, college & adult education groups, family groups (adults with children), young people, adults, community groups, specialist societies, university community (visitors/staff) and geologists (amateur and professional). The project will provide considerable improvements regarding access to collections and allow the Lapworth to develop its education, learning and outreach provision, for its existing users and target audiences.

### The Lapworth Museum Redevelopment Project will:

- Make the Lapworth Museum, its collections and associated information, more accessible to as wide an audience as possible.
- Create an accessible, innovative and stimulating learning experience through interaction with the museum and its collections.
- Provide improved collections care for the long-term preservation of the heritage.
- Provide an inclusive project which engages and involves a wide range of people at all key stages.

### These key aims will be achieved by:

- The restoration and refurbishment of the existing museum space, and development of new galleries to provide increased access to a greater proportion of the Lapworth's extensive collections
- Developing a dedicated *Museum Education Room*, and appointment of a *Learning & Community Development Officer*,
- New galleries that will also include provision for temporary exhibition space to allow for regularly changing exhibitions, further increasing access to the collections, and encouraging repeat visits to the museum.
- The refurbishment and provision of new galleries will result in a more varied user experience and learning opportunities.

The Redeveloped Lapworth Museum of Geology will provide an outstanding visitor experience, with accessible, informative and engaging exhibitions and activities that will benefit the museum's public and university audiences, and will be a unique resource for the region and the nation.



For more information about the Lapworth Museum of Geology visit:  
<http://www.birmingham.ac.uk/lapworth>

or contact

Jane Harris Project Manager- Lapworth Museum Redevelopment Tel. 0121 414 7294 email. [J.M.Harris@bham.ac.uk](mailto:J.M.Harris@bham.ac.uk)

# COLIN KNIPE EARLY CAREER GEOLOGIST AWARD 2014

The national Early Career Geologist award was launched back in 2012 in order to recognise the work of geoscientists in the early part of their careers. Regional Groups are responsible for organising regional heats - The Colin Knipe Award in our case - with the winner of which being entered into the draw for the national final, traditionally held in April at Burlington House.

Now in its third year, the GSL have been working behind the scenes to tweak how the award is run to make it as attractive and easy to take part in as possible. For our part, the WMRG have brought forward the annual presentations to January 2014 in order to afford the chosen finalist with enough time to prepare ahead of the National Final, should they be chosen.

Taking part is the perfect way to enhance your communication skills and demonstrate to an audience of peers your understanding of a particular geological topic. The format of the award is simple but first, there are a few rules...

Entrants to this Regional Award must:

- Be Fellows or Candidate Fellows of the Geological Society, London (i.e. they must not be Chartered);  
**The Group will accept entries from applicants who are not affiliated to the Geological Society, London but they will not be eligible for the national final (see further below).**
- Have a maximum of 10 years post-graduate (bachelors or equivalent) experience, and;
- Live or work in the Geological Society's West Midlands Region  
*(Herefordshire, Worcestershire, Shropshire, Staffordshire, West Midlands and Warwickshire)*

To enter, just prepare a written submission, of no more than 500 words, on a topic of your choice and submit to [geolsoc\\_wmrg@live.co.uk](mailto:geolsoc_wmrg@live.co.uk) **before 31 March 2014**.

In recognition of the variety of careers and subjects that geologists get involved in, the only criteria is that the topic of the submission shall be geological/ geo-environmental in context and must be your own work. This could be your dissertation, a piece of research that interests you or a current project you're involved with at work.

Entries will be shortlisted to 3 Regional Finalists by a panel of Judges from the Committee. If you're successful, you will then be invited to give a short 15 minute presentation to the Judges and an audience of Committee and Regional Group Members **at a date and venue to be confirmed**. Five minutes will be allotted after the presentation for audience Q&A.

The Regional Winner will receive the Colin Knipe Trophy and a cash prize of **£100**. The first and second placed runners up will receive prizes of **£50** and **£30** respectively.

The Regional Winner will also then be entered into the draw for the National Final to be held in mid-April 2014 at Burlington House, London with an opportunity for the winning entry to be presented in a Geoscientist Magazine article. If more than 4 Regional Winners are entered from across the country, the written submission will be used to shortlist the 4 National Finalists by a panel of Judges.

The National Early Career Geologist Award Final is held jointly with the National School Geology Challenge, aimed at A-level students. To reflect the different audience to the Regional Award, those reaching the National Final are asked to shorten their presentation to 10 minutes. The judging of the National Award will assess how you deliver geosciences information to a mixed audience from A-level upwards, rather than solely focussing on the technical content of your work.

## Roz Pedder, winner in 2013

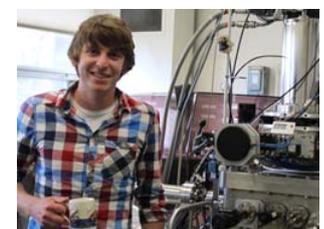
*"It is great practice for public speaking and presenting scientific information, which all geoscientists will have done at some point in their career no matter what area they end up working in."*

*"The highlight for me was having the opportunity to present my work at the final to an audience of sixth form geologists and give them some idea of what you can do with a career in geology."*

## Owen Weller, winner in 2013

*"I enjoyed the competition as it exposed me to the variety of science being done by geologists around the country. As a PhD student, it was particularly interesting to hear from those working in industry"*

*"I entered because I think it's important that scientists try to make their research as accessible as possible. I hope that the competition has shown my passion for scientific communication and that I can continue to share aspects of my research - measuring geological time- in the future"*



## OTHER REGIONAL GROUPS

If you can't wait until the next Group talk, why not attend one of our neighbours? GSL members are normally welcome to attend meetings of other Regional Groups but, we advise that you always check with the relevant representative first. Below is a combined summary of events published to-date:

DATE	EVENT	HOST	LOCATION
10 Feb	Cliffs and Landslides Speaker: Eddie Bromhead	EMRG/ EMGS	Loughborough University
13 Feb	Incoming - Learning to love the Meteorite Speaker: Ted Nield	NWGS/ LGA	Lecture Theatre 137, Liverpool John Moores University
18 Feb	Downhole Geophysics Speaker: Heather Butler	TVRG	Fugro Office, Wallingford
14 Mar	SVOC and DNAP - Challenges for Contamination in Bedrock Speaker: Hazel Davidson	NWGS	Williamson Building, Manchester University
18 Mar	Boulby Mine into the Future Speaker: Jac Genis	EMRG	TBC
18 Mar	Geology, Minerals, and Exploration in the DRC Speaker: Kathy Kavanagh	TVRG	Oxford
18 Apr	Geological Factors in Major Landslides and Slope Stability Speaker: Steve Hencher	NWGS	The Swan, Golbourne Road, Winwick, Warrington
13 May	One Day conference with the engineering group	TVRG/ TVEG	TBC

EMRG	East Midlands Regional Group	<a href="mailto:joanna.thomas@eon.com">joanna.thomas@eon.com</a>
NWGS	North West Geological Society	<a href="mailto:geologicalsociety.northwest@gmail.com">geologicalsociety.northwest@gmail.com</a>
TVRG	Thames Valley Regional Group	<a href="mailto:tvgrsecretary@gmail.com">tvgrsecretary@gmail.com</a>
WRG	Western Regional Group	<a href="mailto:westernregionalgroup@gmail.com">westernregionalgroup@gmail.com</a>

## OTHER SOCIETIES

WMRG/GLS members are also normally welcome to attend meetings of other societies, but should always check first with the relevant representative.

Further information can be found on individual Society web sites.

### Lickey Hills Geo-Champions

For information on events visit: [www.ehtchampions.org.uk](http://www.ehtchampions.org.uk)  
Or, contact [lickeychampions@gmail.com](mailto:lickeychampions@gmail.com)

#### Sunday 16<sup>th</sup> February

**(Field Research Day) : Lickey Hills Country Park 10:30-15:30**

Members of the WMRG, any interested geologists and serious amateurs are invited by the Geo-Champions Group to be part of an investigation into the geology of the Lickey Hills, incorporating as many sites as possible, from the quarry at the southern end of Cofton Hill to Rubery cutting. **The event is NOT open to the general public.** Bring hard hats, strong footwear, a packed lunch, and your geologist's tool kit!

The Geo Champions will be delighted if as many geologists as possible join them on this day; especially if they can help throw some light on the complex structural aspects of the Lickey Hills.

Those wishing to attend should contact Julie Schroder [julieschroder@blueyonder.co.uk](mailto:julieschroder@blueyonder.co.uk).



## Black Country Geological Society

For information on events visit:

[www.bcgs.info](http://www.bcgs.info)

Or, contact Secretary (Linda Tonkin)

[secretary@bcgs.info](mailto:secretary@bcgs.info)

Or, Field Secretary (Andrew Harrison)

[fieldsecretary@bcgs.info](mailto:fieldsecretary@bcgs.info)

Group specifics:

There is a charge of £2.00 for non-members.

### Sunday 2<sup>nd</sup> February

**(Conservation Day) : Springvale Park, Wolverhampton 10:30 to 14:30**

Vegetation clearance. Meet at 10:30 for 11:00 at the end of Ettingshall Park Farm Lane just off A459. Wear old clothes, waterproofs and stout footwear. Please bring gloves and garden tools; loppers, secateurs, forks and spades if you have them. Also bring lunch. Finish at 14:30. Contact Andrew Harrison (Field Secretary) to express your interest in attending.

### Saturday 8<sup>th</sup> February

**(Conservation Day) : The Rowley Hills Reserve, Rowley Hill. 10:30 to 14:30**

Just south of Bury Hill Park. Meet at 10:30 at The Tower Road end of St. Brades Close, off Tower Road which is off the Birmingham - Wolverhampton New Road A4123. The day will focus on Bramble clearance across this important grassland site and creating better access and views of the very important geological features on the former quarry faces. Also bring lunch. Finish at 14:30.

Contact Paul Stephenson (BBC Wildlife Trust) on 0121 454 1207 or 07884074827 to express an interest in attending.

### Monday 24<sup>th</sup> February

**(Indoor Meeting): The Precambrian Fossils of the Long Mynd, Shropshire 19:30 for 20:00**

Speaker: Dr Alex Liu, Henslow Junior Research Fellow (Department of Earth Sciences, University of Cambridge).

### Sunday 2<sup>nd</sup> March

**(Conservation Day) : The Barr Beacon. 10:30 to 14:30**

Meet at 10:30 for 11:00 at the entrance on B4154 Beacon Road, opposite Bridle Lane (the southern entrance to Barr Beacon) Grid ref: SP060 967. Wear old work clothes, waterproofs and stout footwear. Please bring gloves and garden tools; loppers, secateurs, forks and spades if you have them. Also bring lunch. Finish at 14:30.

### Monday 24<sup>th</sup> March

**(Indoor Meeting) : How Speleothems reveal Quaternary Climatic History 19:30 for 20:00**

Speaker: Professor Ian Fairchild (University of Birmingham)

### Sunday 12<sup>th</sup> April

**(Field Meeting) : Barrow Hill and other Geo-conservation Sites**

With Warwickshire Geological Conservation Group. Starting at Barrow Hill, we will then visit Springvale Park, Barr Beacon and Rowley Quarry. Meet on Vicarage Lane, Barrow Hill Nature Reserve, Grid ref: SO 915894, at 10.30 am. Bring packed lunch and stout footwear. From Barrow Hill we will need to car-share due to restricted parking at Springvale Park and Rowley Quarry. From Barrow Hill we will head to Barr Beacon Quarry first. Contact Andrew Harrison (Field Secretary) to express your interest in attending.

### Monday 28<sup>th</sup> April

**(Indoor Meeting) : Wine, Whisky and Beer: the role of Geology 19:30 for 20:00**

Speaker: Professor Alex Maltman (University of Aberystwyth)

### Sunday 10<sup>th</sup> May

**(Field Meeting) : Oxford University Museum of Natural History**

Lead by Professor Paul Smith (Museum Director).

*All meetings are held during winter months at Dudley Museum & Art Gallery, St James's Road, Dudley. West Midlands. The Museum opens at 7:30pm and meetings normally commence at 8:00pm.*



## Shropshire Geological Society

For information on events visit: [www.shropshiregeology.org.uk](http://www.shropshiregeology.org.uk)

Group specifics: Anyone wishing to attend should telephone or email the co-ordinator for the meeting at least 48 hours in advance of the activity. Please arrive 15 minutes before the start time. A charge of £3.00 is levied for non-members. Those under 16 must be accompanied by an adult.

**Wednesday 12<sup>th</sup> February**

**(Lecture) : Water Along Fault Zones**

Speaker: Prof. Sian Loveless

**Wednesday 12<sup>th</sup> March**

**(Lecture) : Shetland-Scottish Geology**

Speaker: Chris Darmon

Lectures are generally held at Shire Hall, Shrewsbury, commencing at 7.15pm for 7.30pm.

## Warwickshire Geological Conservation Group

For information on events visit: [www.wgcg.co.uk](http://www.wgcg.co.uk)  
Or, contact Ian Fenwick [swift@ianfenwick.f2s.com](mailto:swift@ianfenwick.f2s.com)

Group specifics: There is a charge of £2.00 for non-members.



**Wednesday 19<sup>th</sup> February**

**(Lecture) : The Cambrian Explosion: News from the Far North**

Speaker: Prof. Paul Smith (Oxford University Museum of Natural History)

**Wednesday 19<sup>th</sup> March**

**(Lecture) : The Palaeocene Lava Field of North West Scotland: Monotonous Piles of Old, Cold and Boring Basalt?**

Speaker: Dr Ian Williamson (ex BGS and Natural England)

All lectures are held monthly between September and April at St Francis Church Hall, Warwick Road, Kenilworth.

## North Staffordshire Group of the Geologists' Association

For information on events visit: <http://www.esci.keele.ac.uk/nsgga/>

Group specifics: Non-members pay £2.00 to cover temporary membership giving them insurance cover. A field fee of £2.00 per head is also normally charged for members and non-members to cover leader's expenses.



**Thursday 13<sup>th</sup> February**

**(Lecture) : Rebuilding Terrestrial Ecosystems after the end-Devonian Mass Extinction**

Speaker : Prof. Sarah Davies (Leicester)

**Thursday 13<sup>th</sup> March**

**Annual General Meeting followed by**

**(Chairmans Address) : Tunisian Tales: Titbits from Tethys - Fluids, Phosphates, Pores and Petroleum**

Speaker : Dr Patrick Cossey

**Sunday 30<sup>th</sup> March**

**(Field Meeting) : Hillend, South Shropshire**

Leaders : Joe Crossley and Hazel Clark

Booking Deadline: 10 March

**Sunday 26<sup>th</sup> June**

**(Evening Field Meeting) : Geology of Keele**

Leaders : Ian Stimpson

Booking Deadline: To be Confirmed

Lecture meetings are held monthly during the autumn and winter, at 7.30pm in the William Smith Building at Keele University. Field meetings are held at approximately monthly intervals over the spring and summer.

Enquiries regarding field trips should be addressed to: Steve Alcock, Longfields, Park Lane, Cheddleton, Leek, Staffs, ST13 7JS Tel: 01538 360431 or 07711 501028. Email: [steves261@aol.com](mailto:steves261@aol.com)

## Shropshire Wildlife Trust

Darwin Festival 2014 8<sup>th</sup> to 22<sup>nd</sup> February



An exciting programme of events for all ages is on offer at the 2014 festival, which runs from 8 to 23 February 2014. The festival, coordinated by Shropshire Wildlife Trust, aims to inspire people with curiosity about the natural world and awaken understanding of the marvellous wildlife with which we share our world.

### ***'Origins' Photo Exhibition***

Saturday 8<sup>th</sup> to Saturday 15<sup>th</sup> February 10:00 to 16:30 Free Admission

A collection of photographs by Shrewsbury photographer, James Warman, that takes inspiration from the fields and meadows close to Charles Darwin's childhood home. Images have been taken over a 12 month period and not only show the rich diversity of nature on our doorstep but hopefully give an insight into what inspired Darwin as a child.

***Shropshire Wildlife Trust, Shrewsbury***

### ***Singing Darwin's Praises***

Sunday 9<sup>th</sup> February 17:45 for 18:00 Free Admission

Choral Evensong sung by the renowned choir of St Chad's commemorating the life of Charles Darwin in the building in which he was baptised. Music will include a piece by Frederick Bridge composed for and sung at Darwin's funeral service in Westminster Abbey in 1882.

***St Chad's Church, Shrewsbury***

### ***The Galapagos Islands: 150 years on since Darwin's visit***

Saturday 15<sup>th</sup> February 13:45 for 14:00 Free Admission By Booking

This lecture is kindly sponsored by the Society of Biology West Midlands Branch. Mrs Norma Broadbridge MBE FSB describes what present day visitors can see of these unique islands. Find out about the pressures and problems there nowadays and some of the ways these are being dealt with.

***Shropshire Wildlife Trust, Shrewsbury***

Booking is essential, please contact: [sbwestmidsbooking@aol.co.uk](mailto:sbwestmidsbooking@aol.co.uk)

### ***The thinking person's tour of Darwin's Garden***

Saturday 15<sup>th</sup> February Tours 10:00 to 14:00 £5 per Person

Sunday 16<sup>th</sup> February Tours 12:00 to 14:00 £5 per Person

Join John Hughes from Shropshire Wildlife Trust and John and Sharon Leach for an inspirational tour of Darwin's Garden where he spent his formative years. Tours will last for approximately one hour.

***Darwin's Garden, Shrewsbury***

Booking is essential, please ring 01743 284280

### ***Masterpieces are not single births: Darwin and his predecessors***

***The Walker Theatre, Theatre Severn, Shrewsbury***

Sunday 16<sup>th</sup> February 14:15 for 14:30 £10 per Person

This year's Darwin memorial lecture, sponsored by the Friends of Shrewsbury Museum and Art Gallery, is given by Dr Rebecca Stott who looks at the influences on Darwin and the evolution of his ideas.

For more information or to book contact the boxoffice for Theatre Severn and the Old Market Hall cinema on 01743 281281

### ***Busy little beetles***

Tuesday 18<sup>th</sup> February 10:00 to 12:30 £3 per child

As a child Darwin was fascinated by collecting insects, especially beetles. Join us for beetle games and activities and make your own a bug house to take away.

***Shropshire Wildlife Trust, Shrewsbury***

Booking is essential, please ring 01743 284280.

### ***Dinosaur Detectives***

Tuesday 19<sup>th</sup> February 10:00 to 11:00 £3 per child

Join us and the team from the newly refurbished Music Hall for fun, family friendly, Darwin activities.

***Shrewsbury Music Hall, Shrewsbury***

Booking is essential, please ring 01743 284280

### ***Fossil Frenzy***

Thursday 20<sup>th</sup> February 13:00 to 15:00 £3 per child

Join us and the team from the newly refurbished Music Hall for fun, family friendly, Darwin activities.

***Shropshire Wildlife Trust, Shrewsbury***

Booking is essential, please ring 01743 284280

## Shropshire Wildlife Trust

Darwin Festival 2014 8<sup>th</sup> to 22<sup>nd</sup> February (cont.)

### *Darwin's Finches Shrewsbury*

Friday 21<sup>st</sup> February 10:00 to 12:30 £3 per child  
Investigate why birds' beaks are different shapes; play the 'birds' breakfast' game; have a go at making a nest of your own and test it out with tasty chocolate eggs.

*Shropshire Wildlife Trust,*



Booking is essential, please ring 01743 284280

### *Darwin's Shrewsbury Tours*

Friday 21<sup>st</sup> February 11:00 onwards £4.50 adults, £2.50 children  
Saturday 22<sup>nd</sup> February 11:00 onwards £4.50 adults, £2.50 children

Take a guided walk of Darwin's Shrewsbury with the Shrewsbury Town Tours Team.

Numbers are limited so advance booking is essential on 01743 258888 or [guided.tours@shropshire.gov.uk](mailto:guided.tours@shropshire.gov.uk)

### *Darwin's religion*

Friday 21<sup>st</sup> February 11:00 to 16:00 *Shrewsbury Unitarian Church, High Street*  
Saturday 22<sup>nd</sup> February 11:00 to 16:00 Free Admission

An open day at Shrewsbury Unitarian Church; the church that Darwin attended as a boy with his mother, Susannah Darwin (nee Wedgwood). Site of the first dissenting chapel in Shrewsbury, the church also has links with the poet Samuel Taylor Coleridge and the essayist William Hazlitt.

### *Potato Day*

Saturday 22<sup>nd</sup> February 10:00 to 13:00 *Shropshire Wildlife Trust, Shrewsbury*  
Free Admission

Stock up on traditional and new varieties of seed potatoes, vegetable seed and onion sets. Demonstrations and advice on how to grow the best quality vegetables and how to create a plot that will keep you supplied with fresh, healthy food. Seed swap, second hand books and gardening equipment and lots of fun for the family with potato printing and homemade refreshments.

For more details, visit

<http://www.discoverdarwin.co.uk/darwin-festival>

<http://www.shropshirewildlifetrust.org.uk/WhatsOn/Darwin+Festival+2014>

## Herefordshire and Worcestershire Earth Heritage Trust

For information on events visit: [www.earthheritagetrust.org](http://www.earthheritagetrust.org)

Group specifics: None known at this time

**COPY DATE FOR THE NEXT NEWSLETTER:**

**MARCH 2014**

**PLEASE SEND MATERIAL FOR THE NEXT NEWSLETTER TO:**

**[GEOLSOC\\_WMRG@LIVE.CO.UK](mailto:GEOLSOC_WMRG@LIVE.CO.UK)**

**BEFORE FRIDAY 28<sup>TH</sup> MARCH 2014**