



**Circular 390  
March 2011**

Registered Charity No: 503617

President: Tim Colman

[www.emgs.org.uk](http://www.emgs.org.uk)

**SPRING 2011  
LECTURE PROGRAMME**

**Saturday, 26<sup>th</sup> March 2011**

Joint meeting with the Yorkshire Geological Society at BGS Keyworth on the theme of "Carbon Capture & Storage"

**Saturday, 16<sup>th</sup> April 2011 - 6.00 pm**

**Members' Evening**

**LECTURE VENUE**

Indoor meetings will take place in lecture theatre B3 of the Biology building at the University of Nottingham. If you require to use the lift to B3, please speak to the security attendant who will assist you. B3 is equipped with induction loop hearing assistance. If you are attending meetings or joining a coach at the University of Nottingham, enter from the South Entrance on University Boulevard. Cars should be parked in the car park on the bend in the road just beyond the security point after Science Road. The entrance to the Biology building is at the right hand side of the rear of this car park.

**SPRING/SUMMER 2011  
FIELD MEETINGS**

**Sunday, 15<sup>th</sup> May** - **Day Excursion to the Oxford Area**  
Leader: Paul Austin Sargent (Oxford Geology Group)

**Wednesday, 15<sup>th</sup> June** - **Evening Walk - Millstone Grit in Derbyshire**  
Leader: Keith Ambrose

**Wednesday, 6<sup>th</sup> July** - **Evening Walk - Mineral deposits & workings in the Ashover Area**  
Leader: - Tim Colman

**Sunday, 14<sup>th</sup> August** - **Day Excursion to Robin Hood's Stride**  
Leader: Gerry Shaw

**Sunday, 4<sup>th</sup> September - Day Excursion in the Upper Dove Valley**

**Leader: Neil Aitkenhead**

(Details in next Circular)

**Saturday/Sunday, 17<sup>th</sup> - 18<sup>th</sup> September - Weekend Excursion to Shropshire**

**Leader: Andrew Jenkinson**

(Details in next Circular)

**Date to be arranged - Visit to Prof. Azzopardi's "volcano"**

**INDOOR LECTURES**

**Saturday, 26<sup>th</sup> March 2011**

**Joint meeting with the Yorkshire Geological Society on the theme of "Carbon Capture & Storage: Latest Developments"**

**Meeting Room 1, British Geological Survey, Keyworth, Nottingham NG12 5GG**

**14.00 - 17.00**

Carbon dioxide capture and storage (CCS) is an emerging technology that could help to reduce global emissions of this greenhouse gas to the atmosphere. The techniques used to plan, engineer and monitor CCS schemes are similar to those used in the hydrocarbons industry. This meeting provides an opportunity to learn about new initiatives in this exciting field that could be very important to the UK economy and help reduce CO<sup>2</sup> emissions worldwide.

John Powell, Convenor.

**14.00 - 14.05**

**Society Business**

Noel Worley, President, YGS

**14.05 - 14.35**

**Carbon Dioxide Storage: An Introduction**

Mike Stephenson, British Geological Survey and National Centre for Carbon Capture and Storage

**14.35 - 15.05**

**Carbon Dioxide Capture and Utilisation**

Mercedes Maroto-Valer, National Centre for Carbon Capture and Storage and University of Nottingham

**15.05 - 15.40**

**Refreshments: and a chance to look at posters**

**15.40 - 16.10**

**The Carbon Dioxide Storage Project at Sleipner in the North Sea: Time-lapse Monitoring Results**

Andy Chadwick British Geological Survey

**16.10 - 16.40**

**3D Modelling in CCS**

John Williams, British Geological Survey

**16.40 - 17.00**

**Closing Remarks.**

Saturday, 16<sup>th</sup> April 2011 - 6.00 pm

**Members Evening**

**Title: LA Scandinavian Rock Tour**

**Speaker: Ian Thomas**

**Abstract:** Ian was fortunate in being awarded a prestigious Churchill Fellowship to tour Scandinavia in 2009. The purpose of his trip was to explore traditional building craft skills and materials (particularly stone) in the context of modern limitations eg arising from health, safety, environmental and other policy considerations. In 4000 miles of travel he visited over fifty masonry workshops, universities/colleges, building sites, government departments, trade bodies and of course quarries, and had discussions with about eighty people

Starting in Trondheim with its grand restored Nidaros Cathedral, his route took him southwards to the quartzite quarries at Oppdal and after a diversion to two historic mining towns, on to the massive larvikite operations in southern Norway. Around the Swedish border were granite quarries and masonry-shops, still surprisingly using semi-traditional methods in these high wage economies. A whirlwind trip around the Danish hard rock island of Bornholm (worth a fortnight alone) was followed by more visits to a variety of quarries along and off the Swedish Baltic Coast. An overnight sailing to Finland started with a 7am tour of the Balmoral Quarries in the South West and later, rapakivi workings in the South East. One day was spent at the impressive Finnish Stone Center and another, accompanied by the local mayor, seeing spectrolite (gem quality labradorite) diggings very close to the Russian border.

**Title: ..... Escape from Christchurch**

**Speaker: Richard Hamblin**

**Abstract:** Over the years Ian Sutton has organised some exciting trips to countries famous for volcanoes, earthquakes and other such geological features, but never before has one of his trips ended with a strength 6.3 earthquake! At the time of the Christchurch earthquake, the tour had ended and Sue and I were at a heritage park east of Christchurch, very near the epicentre. Damage to the buildings where we were standing was fortunately surprisingly slight, and it was not until we emerged that we discovered huge cracks in the road, a train derailed, and mud volcanoes resulting from liquefaction of the ground. The manager of the park very kindly gave us a lift into town and there we discovered much more damage, with the cathedral spire fallen and modern multi-story blocks collapsed and on fire.

The city centre was sealed off by the time we got there, and our problem was finding out what we should do. After an unpleasant night in a motel with no power, no water, no telephones and a proprietor who didn't speak English, the New Zealand army finally directed us to the tourist evacuation camp in Hagley Park, and from there on our luck improved. The Red Cross were doing a marvellous job registering evacuees, Air New Zealand and the air force organised an evacuation as soon as the airport was reopened, and locals were opening their houses to refugees. Considering that this disaster was completely unexpected, we were amazed at the efficiency of all the official and voluntary organisations, and the complete lack of panic. If I had to be in another major earthquake, New Zealand is definitely the place to be!

**Title: The Ostracod Fauna of Groby Pool, Leicestershire**

**Speaker: Katy Gosling**

**Abstract:** Found throughout the fossil record, the ostracod, though small, has a lot to offer. These diverse and abundant microfossils have long been used in biostratigraphy, however there has been increased interest amongst Quaternary geologists in studying the diversity and distribution of *living* ostracod species. With an estimated 20,000 living species and found in practically all aquatic environments, this is no mean feat.

This talk will introduce a survey of the ostracod fauna of Groby Pool, Leicestershire, a Site of Special Scientific Interest. We are all familiar with traditional geological field work, equipped with hammer and notebook, so a project involving jars, nets, wellington boots, and alcohol provided an entertaining variation for the undergraduate geologist. The talk will include a selection of scanning electron microscope images that were generated to aid identification. These show some of the fascinating anatomical and behavioural features of this peculiar creature.

## **SUMMER 2011** **FIELD MEETINGS**

### **Insurance and Safety**

Members are reminded that the Society has only public liability insurance and that personal accident insurance is a matter for individual members to arrange as they consider necessary. Up to date hard hats are obligatory for all field excursions involving quarries or cliff faces and strongly recommended for all trips. High visibility clothing is sometimes required in working quarries. High visibility tabards can be obtained from GA Enterprises, 126 Fleetside, W. Molesey, Surrey KT8 2NQ at £4.70 incl. pp. Members without suitable hard hats may be refused access to certain sites! Hard hats can be obtained from many Builders' Merchants, Wickes, B&Q Warehouse etc. for about £4.

Any non-members attending field excursions will have to pay a temporary membership fee of £2.00 and all participants are reminded that they must comply with any instructions from excursion leaders or, for example, quarry managers or their employees on Health & Safety issues.

### **Sunday, 15<sup>th</sup> May - Day Excursion to the Oxford Area**

**Meeting time: 10.30 am**

**Meeting place:** Kirtlington Quarry Grid ref: SP 494 199 (from the M40, Junction 9, take the A34 south west to the B4027, and then through Blechingdon to Kirtlington. Turn down Mill Lane opposite the village pond - Quarry entrance marked by interpretation board on the right. **Hard hats required.**

The Middle Jurassic (Bathonian) limestones and clays at the quarry have yielded faunas some of which are life assemblages and others which have been transported before burial. Brachiopods, bivalves, reptile teeth and bones, fragments of pterosaurs, sharks, long-snouted crocodiles and also the vertebrae, limb bones and skull fragments of Cetiosaurus have been found. The quarry is most famous for its mammal fossils and is the most important location for mammal fossils in the world.

Following a pub lunch, the afternoon will be spent on a building stones walk in Oxford around the ancient buildings of the famous dreaming spires and will culminate in a visit to the University's world class Natural History Museum.

### **Wednesday, 15<sup>th</sup> June - Evening Walk - Millstone Grit in Derbyshire**

**Meeting time: 6.30 pm**

**Meeting place:** Take the A6 from Derby towards Duffield and before you reach Duffield centre, take the first turning right (? signposted Little Eaton). This is before you enter the main part of Duffield. Cross the River Derwent, bear right and reach a right-hand turn with a pub on your right. Park in the pub car park at Grid reference: SK 3506 4292.

We will examine outcrops of two of the main "grits" of the Millstone Grit group in Derbyshire. Firstly we will look at the Ashover Grit, the lowest sandstone in the sequence. The "Main Bed" which we will

examine is a coarse, arkosic or feldspathic sandstone. Two major facies have been recognised in a unit which displays an upward coarsening sequence with many sedimentary structures. At the second locality, the Rough Rock, the uppermost sandstone of the Millstone Grit is exposed and we will be able to compare the structures and lithology with that of the Ashover Grit. Both sandstones were deposited in a deltaic environment.

**Wednesday, 6<sup>th</sup> July - Evening Walk - Mineral deposits and workings in the Ashover area.**

**Meeting time: 6.00 pm**

**Meeting place:** Meet in Ashover Parish Hall car park (SK 351 633).

The walk will investigate the Carboniferous rocks of the Ashover area, varying from the volcanics and limestones of the Dinantian to the Namurian shales and sandstones. Much emphasis will be directed towards the hydrothermal mineralisation as Ashover was an important lead mining and then fluorite working location. All mineral working in the area has now ceased, but there is still a great deal of evidence of this activity to be seen. A traverse across the anticlinal structure of this area will allow an appreciation of the structure, rock types, mineral deposits and the history of the mining.

**Saturday, 14<sup>th</sup> August - Day Excursion to Robin Hood's Stride**

**Meeting time: 10.30 am (Finish about 3.30 pm)**

**Meeting place:** Elton Church - Grid reference: SK 22610. From Matlock take the A6 north and turn off left at Darley Bridge to join the B5057 and continue through Winster to Elton.

The purpose of the excursion is to relate the lithology of the Carboniferous rocks to landforms at the limestone-gritstone junction. We will also look at building stones, mining remnants and archaeological sites. The route will cover about three to four miles of undulating country.

***Please bring a packed lunch and suitable clothing for walking in the dales.***

**Sunday, 4<sup>th</sup> September - Day Excursion in the Upper Dove Valley**

(Details in next Circular)

**Saturday/Sunday 17<sup>th</sup> - 18<sup>th</sup> September - Weekend excursion to Shropshire**

(Details in next Circular)

**Date to be arranged - Visit to Prof. Azzopardi's "volcano"**

Following the very interesting lecture on multiphase flow in volcanoes, Professor Barry Azzopardi has offered us a demonstration of the man made volcano he has in his laboratory. As yet we do not have a date for this visit, but if you are interested please indicate on the booking form with a contact telephone or e-mail and Ian Sutton will let you know immediately arrangements are made.

**PLEASE COMPLETE THE ATTACHED BOOKING FORM FOR THE FIELD TRIPS AND RETURN TO IAN SUTTON**

## **EMGS Council**

At the AGM on the 12<sup>th</sup> March 2011 the following members were elected to serve on Council for the coming year:

President	-	Tim Colman
Vice-President	-	John Travis
Secretary	-	Janet Slatter
Treasurer	-	Colin Bagshaw
Editor	-	Tony Waltham

Ordinary members of Council: Keith Ambrose, David Bate, Gerry Shaw, Ian Sutton, Neil Turner and Geoff Warrington.

## **Subscriptions**

Subscriptions were due on 1<sup>st</sup> February 2010. If you have not yet paid your subscription, please can you contact the Treasurer as soon as possible. The rates remain the same. Members who do not pay by Standing Order could please consider doing this as it eases the administrative load. Please also consider paying your subscription by way of a Gift Aid declaration. It costs you nothing but benefits the Society considerably and helps to keep our subscription rates down. A blank Gift Aid form and Standing Order Authority are available by request from the Secretary or Treasurer.

Subscription rates are:       £12.00 ordinary  
                                      £15.00 joint membership  
                                      £ 5.00 student membership

## **Information for Other Societies**

We hold information of lectures and field meetings for other local societies such as the NSSGA, Black Country Geological Society and Leicester Lit & Phil Society. If you would like details of any of these, please contact the Secretary.

## **New Members**

T F N Johnson, Market Harborough, Leics.  
Dr K Hurt, Belper, Derbyshire.  
Dr Joanna & Dr David Thomas, West Bridgford, Nottingham  
Dr Clare Atherton, West Bridgford, Nottingham  
Dr Andrew Johnson, Glossop, Derbys  
Miss Victoria Porter, Retford, Notts.

## **Society Publications**

- (1) **Leicester Building Stones Guide;**
  - (2) **East Midlands Field Guide;**
  - (3) **Sandstone Caves of Nottingham** (new full colour edition)
- Copies available by contacting the Secretary or at Indoor Meetings.

We are still looking for volunteers please in the Leicester area to help in distributing the Leicester Building Stones Guide. If you can help, please contact the Secretary (details below).

## **EMGS Website**

A plea for past EMGS Field Trip Photographs please for a gallery on the website. Pictures can be e-mailed to [website@emgs.org.uk](mailto:website@emgs.org.uk) or sent to the Secretary.

### **Marketing the Society's Publications**

We are still in need of a volunteer to promote the marketing of the Society's publications such as the East Midlands Field Guide, Leicester Building Stones Guide and the Sandstone Caves of Nottingham books. If you have any expertise in this field, or even if you haven't but would like to volunteer to help, please contact the secretary or any other member of Council.

### **The National Stone Centre**

Are looking for volunteers for guiding and other activities on the site at Wirksworth. If you can help, please contact Ian Thomas on 01629 824833 or [ian@nationalstonecentre.org.uk](mailto:ian@nationalstonecentre.org.uk)

### **e-mail addresses**

To minimise postal costs and photocopying charges which amount to approximately £4.00 each year for every member who still receives their Circular by post, we would very much like to send you your Circular by e-mail. If you have not already done so, please send your e-mail address to the Circular Editor, [sue.miles@freethcartwright.co.uk](mailto:sue.miles@freethcartwright.co.uk).

**Please can you also confirm your name and address when sending your e-mail** so we can correlate these details with our membership listing.

**The next Circular will be published in May 2011.**

**The next Council Meeting will be held on 24<sup>th</sup> May 2011.**

**Secretary:** Mrs Janet Slatter, 100 Main Street, Long Whatton, Loughborough, Leicestershire LE12 5DG  
e-mail: [janet.slatter@btinternet.com](mailto:janet.slatter@btinternet.com) . tel. no. 01509 843297.

**Treasurer:** Mr Colin Bagshaw, 150 Scalpcliffe Road, Burton-on-Trent, Staffordshire DE15 9AD, e-mail:  
[Colin.bagshaw@yahoo.co.uk](mailto:Colin.bagshaw@yahoo.co.uk) tel. no. 01283 564520

# EAST MIDLANDS GEOLOGICAL SOCIETY

## BOOKING FORM - FIELD EXCURSIONS 2011

Please book me/us for the following excursions:

- Sunday, 15<sup>th</sup> May - Day Excursion to the Oxford Area
- Wednesday, 15<sup>th</sup> June - Evening Walk - Millstone Grit in Derbyshire
- Wednesday, 6<sup>th</sup> July - Evening Walk - Mineral deposits and workings in the Ashover Area
- Sunday, 14<sup>th</sup> August - Day Excursion to Robin Hood's Stride
- Sunday, 4<sup>th</sup> September - Day Excursion in the Upper Dove Valley
- Saturday/Sunday, 17<sup>th</sup> - 18<sup>th</sup> September - Weekend excursion to Shropshire
- Date to be arranged - Visit to Professor Azzopardi's "volcano"

*(Please delete those you will NOT be attending)*

Name(s): .....

Address: .....  
.....

Tel: .....

e-mail address: .....

I/we do/do not have a car available.  
I/we would be prepared to offer transport.

Please send completed booking forms to the Field Secretary,  
Ian Sutton, at 30 Alford Road, West Bridgford, Nottingham NG2 6GJ  
Tel. No: 0115 923 2360 e-mail – [ian.sutton@idsgeo.demon.co.uk](mailto:ian.sutton@idsgeo.demon.co.uk)

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