

Manchester Geological Association

President: PETER DEL STROTHER
JUNE 2012

Founded 1925

www.mangeolassoc.org.uk

Dear Members,

Welcome to a packed June newsletter! Inside is an article from a new member, a review of a piece of fossil curating software, a field report from the Broadhurst Memorial Walk plus two book reviews. Many thanks to those who have contributed and if you have any articles to contribute for the September newsletter please email them to me by the end of August.

For those members on the internet, please remember to sign up to the MGA's facebook group, where members can post interesting geological news items as well as getting updates from the association. Details of this and how to join are in the March newsletter. We have had some members join already but it would be great to get some more.

In other news, Derek Brumhead has brought to my attention the Geomap project in the Forest of Dean, which celebrates the geology and industrial history of the Forest. It is a geological map built in the forest, showing the geology of the Forest, made of the actual stones that the map represents, it also includes details of old mines and industry - it looks like it is well worth a visit (for more info. visit: www.forestofdeanhistory.org.uk).

Council news - We are looking for a new Membership Secretary to take over from Lisa Abbott who has done an excellent job over the last 2 years. If interested please contact us, being membership sectretary is an interesting and rewarding role on the council which involves lots of interaction with our members.

James Jepson

Newsletter Editor

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Indoor Programme: 10 Oct - Carbonates i

20 Oct - Skills Day

19 Sep - NW Highlnds6 Oct - Port Shirgley

QUICK DIARY 2012/2013

Outdoor Events: 28 July - Cefn Mawr

10 Oct - Carbonates in the Cayman Islands

10 Nov - Early NW Geologists

8 Dec - A tour of the Outer Hebrides

12 Jan - Palaeontology of China

13 Feb - AGM & Jurassic of Ketton

12 Mar - Icelandic Volcanoes



ARTICLES

I am a new member of MGA with a rapidly growing interest in geology which has arisen from wanting to discover more about "what's under my feet". As a keen walker, I have become increasingly fascinated with observing geological features and different rock types, collecting the occasional rock samples beneath my feet on my numerous walks in England, Scotland, and Wales, also on the Isle of Skye and in the French Alps. My mini cairns of rock samples are slowly gathering along the garden wall and my wife is just about tolerant of my collections, at least for the moment!



The rocky tors of dolomitsed limestone at Harboro Rocks,Peak District, Derbyshire (Grid Ref. 242 553) Walk no.14



A series of synclines and anticlines in the Ecton Limestone at Apes Tor, Peak District (Grid Ref 100 586), Walk 7



Graded Bedding in sedimentary Seathwaite Fells Formation, Lingmoor Fell, Lake District (Grid Ref 298 050), Walk 13

I have recently enjoyed two excellent guided geology walks in both Snowdonia and The Lakes; details of the courses can be found on the links at the end of the article. The extremely knowledgeable guide, Paul Gannon, is the author of three well illustrated books titled Rock Trails: Snowdonia (2008) Lakeland (2009) and Peak District (2010). Each book begins with a general introduction followed by more detailed geological descriptions and explanations of the various landscapes. I have found all the books to be very helpful beginner's guides to geological terms with multiple diagrams and photographs, accompanied by clear and lucid explanations. At the end of each book, there are between 13-15 graded walks with in-depth accounts and portrayals of geological events, features and rock types. I have already had great pleasure in doing several of these walks from all three books, observing and learning about amazing geology along the way shown in the pictures I have taken!

Large amplitude ripple bedding seen in sedimentary Carnedd y Filiast Grits, splendidly exposed in Cwm Graianog, Snowdonia (Grid ref 628 627), Walk 6



Chrome Hill from Parkhouse Hill, Peak District, Derbyshire along line of the fault (Grid Ref 080 669), Walk 5



Reef Limestone, Parkhouse Hill from Chrome Hill, Peak District, Derbyshire (Grid Ref 080 669), Walk 5

Cambrian sedimentary Bronllwyd Grits above Marchlyn Bach, Snowdonia (Grid Ref 611 626), Walk 6

Anticline seen in the



Roaches Gritstone with cross bedding, Peak District, Derbyshire (Grid ref 003 631), Walk 11



Shifting river channels producing Cross Bedding in Roaches Gritstone, Peak District (Grid ref 003 631), Walk 11

As I approach my final years as a NHS medical practitioner, I hope to increase my knowledge, understanding and appreciation of another science for pleasure and leisure, and look forward to meeting and learning from both like-minded amateur and professional geologists.

Stephen Proctor



The basaltic lava tors at the NW end of the broad summit plateau of Carnedd Llewelyn. Elidir Fawr in the middle distance (Grid Ref 683 644), Walk 5



Idwal Syncline from Pen Yr Ole, Snowdonia, Walk 2



A weathered and lichen covered basaltic lava tor of Carnedd LLewelyn (Grid Ref 683 644), Walk 5

Links: http://www.landscape-walks.co.uk/ and http://rocktrails.pesdablog.com/

TriloBase, the fossil-specific database software - A fabulous find in The Netherlands

Introduction and background: *TriloBase* is a database constructed by a field-based palaeontologist/geologist for fellow palaeontologists and fossil collectors. The software is sleek and for the most part intuitive to use. Although *TriloBase* is frighteningly cheap to buy do not be put off by this - it is well thought out and created by an end-user rather than a techno-geek [my apologies to any palaeo techno-geeks out there].

Why am I going to the trouble of writing a review about databasing software? Well, let me preface what I am about to write by saying that I am an amateur 'fossil nut' rather than a professional palaeontologist or geologist, but I do take my hobby quite seriously. I have collected fossils for many years and still have my very first fossil - a small death plate of *Dactylioceras* sp. ammonites purchased in 1986 for the princely sum of £4.50. Whilst my collection is hardly a rival for the NHM London I began to realise that I might lose track of what I have, so I embarked on an internet search about fossil collection curating... and databasing. The two most obvious database options were (1) a card index database - I am of that era, the Archeon - or (2) an electronic database, Microsoft Access being the obvious choice. I dislike the clunky Access database, so the quest for a better database began. I scoured the internet and looked at the various options then I happened upon *TriloBase*, written by Danny Alexandre (DA) in The Netherlands, and what a find it turned out to be! I test drove the trial version available here: *http://www.TriloBase.com/* and discovered that it was exactly what I needed. The full version is available on CD from the same website for the crazily small sum of £12, along with which you will receive a product key that works for a specified period – more of this later.

TriloBase - the details: Rather than bore you into a state of fossilisation with reams of text, I have bullet pointed the main features of *TriloBase*. However, I will say this: do not be put off by the appearance of the *TriloBase* opening screen (Fig. 1) – it is an absolute doddle to use and can hold far more detail and records than is apparent from first impressions.

System requirements: This is programme one of the few that runs on Vista without any issues... or at least no issues to date (fossilised wood touched!)

- · Windows XP, Vista or 7
- Pentium 1.5 GHz
- 1GB memory 2 or more GB recommended
- Screen: 1024 x 768 pixels, true colour
- 80 Mb of free space on the hard disk for installation
- Storage space commensurate with the size of your fossil collection and details. I would advise that you invest in or otherwise acquire a portable HD (hard drive) or large capacity data stick for back-up purposes.



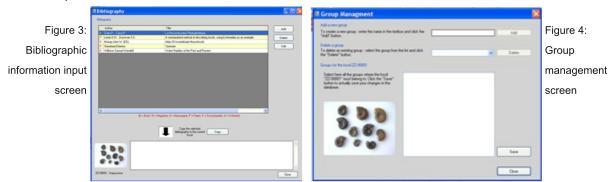
Figure 1: Initial data input screen

Figure 2: Selection of eon, era and period screen

Preparations: You need to do almost nothing in preparation to use this database except compile information about your specimens and take some images (photographs, in my day). I am sticking my neck out here and saying you could get away with going straight from fossil to database, and do the accession code assigning, etc later on; however, the way you tackle this very much depends on the size of your collection and its state of disarray. I test drove a numbering /accession code system using my discrete sub-collection of 'included' ambers and copals.

- The fields of the database are pre-written and allow for the appending of an accession code(s) and numbers to each record.
- One field allows up to six images per specimen to be uploaded (Top right of Fig. 1). The image upload tool is very easy to use; it is akin to uploading images within MS Word. Once uploaded, the images can be zoomed for close scrutiny.
- There is one-click access (Fig. 2) to geological eons, eras, periods, etc, which also shows the arrangement of the continents during any given time span; these details can be copied in to a fossil file/record by a just couple of clicks.
- There is a field to enable tracing of a specimen's storage place within a collection from storage room to cabinet to drawer: these locations are presented as editable boxes.
- There are fields for full taxonomic information from Kingdom down to sub-species with many levels in between, and are listed such that all you have to do is complete a box beside each taxonomic level (see Fig.1).
- There are field/boxes for a description of a specimen, collection site, and other (personal) notes: this is particularly useful if specimens are part of two or more sub-collections. For example, I have quite a number of 'pathological fossils' and 'trace fossils', which have accession codes PTH and TRC, respectively; but they are also part of my main collection and have accession codes pertinent to their family, order, genus and species. All of this is catered for with *TriloBase*.
- There are tick boxes to indicate whether a fossil was 'found' 'bought' 'gifted' 'available to trade/sale', etc: this part is of limited use for me as I use only 'bought', 'found' and 'gifted', but I can see that 'available for trade/sale' could be useful for eBay sellers perhaps. Adjacent to the 'bought' tick box there is a 'price' box: this is useful for future reference and price comparison.
- I believe that where co-ordinates of the collection site are known, Google maps can be called up; however, I have not tried this as most of my fossils are purchases: I hope that I do not get drummed out of the MGA for this admission!
- There is extensive online help documentation, which is easily accessible whilst using *TriloBase* via the 'internet' link on the tool bar.
- Bibliographic information (Fig. 3) can be linked to fossils, which is great if you have an electronic stash of articles relating to your specimens.
- There are versions of *TriloBase* eleven different languages the language is selectable from the toolbar and associated drop–down menu; however, in my case my late-70s school GCE O-level languages are not quite up to that particular challenge. Additional languages can be catered for upon request by contacting DA.
- Unlimited numbers of records can be entered, but clearly, in reality, the number of records stored is dependent upon the size of your HD/storage space.
- The file back-up procedure is very straightforward it is simply a case of locating the files detailed under 'File/Backup' on the toolbar and copying them to a different location or drive: it really is that easy. Using the back-up files to restore the database is equally simple: copy the backup, paste them over the existing files within the working *TriloBase* folder and et voilà all is back to the point when you made the last back-up. There are only four files to back-up too, so ignore this at your peril.
- There is a facility that enables sorting of the specimen records by (accession) number, name of specimen or date of entry: the latter is called 'chronological', which is slightly confusing as I took this to refer to age of the fossil NOT date of entry, but this is a minor niggle.

• It is possible to group specimens under various headings (Fig. 4), which is a great feature if, like me, your specimens often belong to more than one grouping; for example, my pathological *Captorhinus* sp. rib (a healed break) belongs to both the pathological group (PTH suffix) and reptiles (REP suffix) and (when I get around to it) Permian reptiles, USA.



Cost: £12 including shipping from The Netherlands or if you have a fossil or fossils to exchange then DA is willing to exchange if you have something of interest to him.

Support: The support and help for this product is nothing short of fabulous, and is obtained by directly emailing the chap, Danny Alexandre (DA) who designed the software – imagine that eh? Microsoft eat your heart!

Summary:

Pros

- · a demo version to try before you buy.
- · Easy to install.
- Easy to follow and execute back-up instructions ignore these at your peril!
- · Simple and intuitive to use.
- Friendly, helpful support via email: DA is a really nice guy and always happy to help.
- Ridiculously cheap to purchase (£12) or exchange fossils in lieu of payment contact DA.
- Up to 6 images stored per entry.
- Lots of useful and interesting data is already in place and this data can be imported into your specimen records with a couple of clicks.

Cons

- The accession code entry system is a little tricky until you get used to it.
- 'undo' does not always 'undo' in the way you expect, so save the database files before doing anything drastic.
- The 'key' expires after about one month, so if things go horribly wrong, which they did for me (my own fault) you have two options: (1) if you have backed up the necessary files detailed above then simply copy them over the existing ones and you are back in business at the point of your last backup (2) If you have not backed up then you will need to contact DA for a new key, explaining what you have done: please note that DA is a field palaeo-geologist person so do not expect an instantaneous response; however, in my experience he replies to emails very quickly, within a day or so.

In all honesty I did have a few teething problems entering accession codes and managed to delete some information, but had I backed up as DA implores then all would not have been lost. This database is clearly written by a guy who is passionate about what he does – collect and study fossils – and not in it simply for a profit: there aren't many philanthropists about these days – so go on, try it – what have you got to lose? Only twelve quid! And you get a cute little trilobite screen icon on your PC desktop too.

Acknowledgement: Images are captured from the demo version of TriloBase with permission of DA.

Sue Shawcross PHD CBIOL MSB

Field Trip Reports

2012 Broadhurst Memorial Walk

The Broadhurst Memorial walk for 2012, led by Jane Michael, was based on an excursion described by Fred Broadhurst in his guidebook "Rocky Rambles in the Peak District." The walk started at the scenic village of Rowarth, taking in some typical Pennine scenery.

The bedrock hereabouts is Middle and Upper Carboniferous with some glacial cover. From the car park at Rowarth we walked north-north-east on a footpath beside a stream, where the dip in the Rough Rock sandstone was checked to be south-east. From here we continued eastward on to Harthill, where a good view was obtained of the dipping rocks of the Goyt syncline (Figure 1).



Figure 1: Dip of the Goyt Syncline towards Lantern Pike



Figure 2: The fossil plant Stigmaria

In the wall by a stile approaching Matleymoor Farm there is a block of light-coloured ganister, the remnant of a sandy soil leached of minerals by plants growing in it. A *Stigmaria* root can be seen in the ganister, standing vertically now though originally growing horizontally. Rows of rootlet scars surround the root, which has been compressed from a round to an elliptical shape by later overburden (Figure 2).

From here we turned southwards along the Pennine Bridleway to Lantern Pike, from the summit of which there are extensive views of the surrounding countryside – eastwards across to the Kinderscout Grit exposed in the Kinder Plateau, southwards toward Chinley Churn, with the large quarry at Birch Vale in the westerly-dipping Woodhead Hill Rock.

Retracing our steps to the foot of Lantern Pike, after lunch, we turned north-westwards to join a south-westerly path from Blackshaw Farm, investigating en route extensive rows of pits, which had possibly been sunk into the Yard Coal for coal or to extract stone (Figure 3).

Joining a path heading north-west back to Rowarth we stopped to examine an abandoned quarry in the Woodhead Hill Rock. This is situated near the axis of the syncline, and shows abundant cross-bedding and small concretions ca. 2.5cm diameter (Figure 4).

Returning to the footpath, Jane found some glacial erratics in the cobbles beside the path which had weathered to a whitish skin. The range of rock type of the erratics is consistent with them being derived from the Borrowdale Volcanic Group found in the Lake District and provides evidence of the likely course of the glaciers.



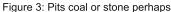




Figure 4: Cross bedding in Quarry

The final stretch of the path cuts through the softer mudstones beneath the Woodhead Hill Rock before reaching the Rough Rock again near the inn in Rowarth. In so doing we have returned down-sequence from the Upper to the Middle Carboniferous, passing though the *Gastrioceras subcrenatum* marine band (not seen).

The Goyt Syncline is a broadly north-south trending structure plunging gently southward. The walk, in summary, provides good views of its structure, starting near the nose of the syncline before moving onto its eastern limb then back towards its axis. Thanks to Jane Michael for a very interesting day.

Jim Spencer Photographs: Jane Michael

UP AND COMING MGA FIELDTRIPS

28th July: Cefn Mawr and Moel Findeg, Leader: *Peter del Strother* **19th-21st Septembe**r: NW Highlands, Leader: *Kathryn Goodenough*

6th October: Pott Shrigley, Leader: *Paul Aplin* **20th October**: Skills Day, Leader: *Various*

For more information and to book a place on a fieldtrip please contact **Jane Michael**, the Field Meetings Secretary

IMPORTANT NOTICE: MGA INSURANCE

Each person attending a field meeting does so on the understanding that he/she attends at his/her own risk. The MGA has Public Liability Insurance cover (including member to member cover), for field and indoor meetings and an element of Personal Accident cover.

However, members should always ensure that they have Personal Liability cover (normally part of the standard householder's insurance policy - please check your policy) and comprehensive Personal Accident cover. These are */your/* responsibility. Overseas trips are not covered.

BOOK REVIEWS

Introducing Volcanology: A Guide to Hot Rocks

by Dougal Jerram

Dunedin Academic Press - 2011

ISBN 978-1-906-71622-6

Paperback: £9.99



Introducing Volcanology is an introduction to all aspects of volcanology, from melting, to eruption and volcanic hazards. The book is well-illustrated throughout, with many of the diagrams being useful references for the more knowledgeable reader too. New terms are introduced in bold type in the text, with further detail given in a comprehensive glossary at the back of the book.

The first chapter provides a good background on rock types and mineralogy, giving more detail on the common volcanic minerals, and on the classification of volcanic rocks. The Earth's interior is introduced in chapter 2, with discussion on the role of radioactive decay on the rate of the Earth's cooling. The relationship between temperature, pressure and water in the melting of rocks is also explained, as well as what can be learned from the study of crystals, melt inclusions and their related melts. Chapter 3 introduces plate tectonics and palaeomagnetism, explaining the links between plate tectonics, earthquakes, and volcanic activity. This chapter further expands on the mechanisms for inducing melting, and a brief discussion of volcanism on other planets and their satellites is included. Eruption styles are covered in chapter 4, which also includes detailed illustrations showing the relationship between viscosity of magmas, and volcano morphology and eruption style. Discussion on the effects of magma viscosity continues in chapter 5, where the links between the type of lava flow and its silica content and viscosity is explained. Pyroclastic flows, air falls, and their related deposits are introduced in chapter 6, which contains useful illustrations of the pyroclastic classification schemes. Chapter 7 provides a background on igneous intrusions and their emplacement, including sills, dykes, plugs and diapirs. The effect of volcanism on the Earth's climate and life is discussed in chapter 8, with particular reference to the Large Igneous Provinces and their potential links to the major mass extinction events. The effects of the two geologically recent eruptions at Laki, Iceland (1783-4) and Pinatubo, The Philippines (1991) are covered in more detail. Volcanic monitoring is covered in chapter 9, with chapter 10 providing insight into the relationship between volcanoes and man; the book rounds up by covering four eruptions which have affected life on the planet, including the recent (2010) Eyjafjallajökull eruption.

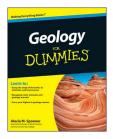
At ten chapters long, the book is an accessible and well-written introduction to the field of volcanology, and is also a good basic reference text for those who already have some knowledge on the subject area. *Introducing Volcanology* aims to be a concise introduction to the topic for those readers with little or no previous knowledge, and as such it doesn't go into great depth in any area, but does provide a good basic background to many areas of volcanology. As an entry level text, a "Further Reading" section may have been a useful addition, to point the enthusiastic reader in the direction of more detailed literature. A few of the figure captions and tables would have benefited from more thorough proof-reading, but these small errors do not detract from the overall text.

Introducing Volcanology is well-priced at £9.99, making it an ideal starting point for the interested reader. The book is part of a new series of geology texts, which aims to provide a concise introduction to different geological topics, including volcanology, plate tectonics, and palaeontology. Introducing Palaeontology will be reviewed in the September newsletter.

Lisa Abbott
University of Manchester

Geology for Dummies by Alecia M. Spooner

Wiley Publicating Inc. – 2011 ISBN 978-1-118-02152-1 Paperback: £9.27 (Amazon)



My initial concerns were that Geology for Dummies would be just another one of those watered-down, American style text books on Geology that tried to do too much and fell short of being useful. My fears were somewhat unfounded and I found the reality very readable, informative and, though lacking detail, never-the-less a good sound introduction for students new to the subject.

The book comprises 25 separate chapters organised under six main headings:

- 1. Studying the Earth: 4 chapters providing an introduction to geological science giving an overview of the scope and practise of the subject involved with its laws and principles. The later part gives a basic outline of the earth's systems and structure from the atmosphere to the core.
- 2. Elements, Minerals and Rocks: 3 chapters outlining the physical and chemical properties of minerals and in particular the structure of silicate minerals. Igneous, sedimentary and metamorphic rocks are then explained with reference to their mineralogy, texture and mode of formation within the rock cycle. Within 30 pages rocks are identified, classified and their processes briefly explained using jargon-free language that is easy to access for later reference.
- **3.** One Theory to explain it all: Plate Tectonics : 3 chapters reviewing current understanding of plate theory and the evidence. This is a good section with a basic but full outline of the evidence for the various boundaries and processes involved, including partial melting, earthquakes and current models for mantle convection.
- **4.** Superficially speaking: About Surface Processes: 5 chapters which inevitably cover all the surface processes (above and below ground) in the rock cycle as in most physical geology texts for the American market. This is in more detail than is really needed for UK geology specifications (e.g. geomorphology of braided streams, meandering streams, straight channels, oxbow lakes etc. all included in detail) though useful background. Whilst glacial, aeolian and fluvial and coastal sedimentary environments are included, sadly shallow (coral reef) and deep marine environments and processes (turbidity currents) are not mentioned or are poorly covered. Interestingly, in the chapter on glaciers, the author briefly deals with Milanković cycles and climate change.
- **5.** Long, long ago, in this galaxy right here: 7 chapters covering the 4.6 billion years of geological time. This section includes geochronological principles and absolute dating methods in some detail (isotopic and dendrochronological methods). It also covers basic palaeontology, the evolution of animals and plants and their increasing diversity through time along with theories of mass extinctions. As a basic grounding of the stratigraphic column it is excellent, even mentioning the Burgess Shale lagerstätten and Snowball Earth theory though this book does not attempt to cover fossil morphology and many faunal groups are not mentioned (e.g. graptolites, brachiopods or bivalves).
- **6.** The part of tens This short section of 2 chapter briefly deals with the human influence of man on geology (building dams, fracking for gas, climate change etc.) and vice versa (hazards associated with earthquakes, landslides, and volcanic eruptions). There are few case studies and this section is more a note to refer you other sources.

The book is presented in the format of other Dummies publications, written in a clear, often humorous style and illustrated with a large number of black and white line drawings to visually illustrate an idea. Some of these are good but often they are over stylised and sometimes they detract and give a false impression particularly when they are devoid of scales and annotation. In addition there are 8 pages of excellent colour photos. As yet I have not found any glaring howlers in the text that would endorse the misconceptions already given by other sources, though I did wince when I read that "The line where the material in the earth's lithosphere changes from the crustal rock to the mantle rock (the asthenosphere) is named the Moho...."

Like all books in the dummies series, Geology for Dummies is not meant to be anything other than a general course introduction to the extensive subject that encompasses geology, and as such it does its job well. So whilst being superficial in its depth, it is cheap and there is enough in here for me to recommend it to anyone starting the subject from scratch.

Indeed, there is little excuse for them feeling like "dummies" for too long with this as a guide.

Pete Loader

Geology Master - St. Bede's College

MGA Indoor Meetings 2012-2013 - updated

Wednesday 10th October 2012 – Carbonate Deposition in the Cayman Islands

DR HILARY CORLETT, University of Manchester

Saturday 10th November 2012 - Some Early North-West Geologists

Jonathan Otley, Man of Lakeland – DR Tom Smith, Science Historian

The Bicentenary of the Manchester Geologist Edward William Binney (18121881)

DR JOHN POLLARD, University of Manchester

John Cunningham & Robert Grant - the forgotten stars of 1838

DR GEOFF TRESISE, Honorary Curator Geology, National Museums Liverpool

Saturday 8th December 2012 – A Tour of the Outer Hebrides

DRS DOUG FETTES and JOHN MENDUM - British Geological Survey, Edinburgh

Saturday 12th January 2013 – The Broadhurst Lectures: The Palaeontology of China

Wednesday 13th February 2013 – The Middle Jurassic of Ketton, Rutland

AGM followed by Presidential Address

PETER DEL STROTHER, Manchester Geological Association

Tuesday 12th March 2013 – Joint Meeting with the Geographical Association, 6.30pm Icelandic Volcanoes

PROFESSOR FIONA TWEED, Staffordshire University



Saturday 12th January 2013 – The Broadhurst Lectures: The Palaeontology of China

Doushantuo Microfossils: the oldest animals in the fossil record?

DR JOHN CUNNINGHAM, University of Bristol

The Cambrian Fossils of Chengjiang, China: the flowering of early animal

PROFESSOR DAVID SIVETER, University of Leicester

Shaking the tree of life by the roots: a bottom-up perspective on the

Palaeozoic and Mesozoic fossil plants of China

 ${\tt DR\ Jason\ Hilton}, \textit{University\ of\ Birmingham}$

Jurassic Spiders from China

PROFESSOR PAUL SELDEN, University of Kansas

Exceptional Preservation of Dinosaur Eggs and Embryos from the Upper

Cretaceous of Henan Province, Peoples Republic of China

DR JOHN NUDDS, University of Manchester

Pterosaurs from the People's Republic of China – Another great leap

forward?

DR DAVID UNWIN, University of Leicester

THE MANCHESTER GEOLOGICAL ASSOCIATION COUNCIL 2012-2013

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For Jim Spencer and indoor meetings - lectures@mangeolassoc.org.uk

For James Jepson and the newsletter - newsletter@mangeolassoc.org.uk

OTHER SOCIETIES AND EVENTS

Manchester Geological Association members are welcome guests at other societies' events, some are listed below:

Black Country Geological Society:	Liverpool Geological Society:

22nd July: (Joint with the Warwickshire Geol. Cons. Group) Visit to the Clent Website: http://liverpoolgeologicalsociety.org.uk

Hills. Andy Harrison Contact: Joe Crossley – 0151 426 1324

5th August: Caer Caradoc and Comley Quarry, Church Stretton. Keith Hodgkiss, North Staffs Geological Association:

Shropshire Geol. Soc. 1 September: Nuneaton Area

18 August (Field meeting): Wrens Nest. Graham Worton Contact: Eileen Fraser – frasers@netfraser.me

Contact: Andrew Harrison – andrew_harrison@urscorp.com Oldham Geological Society:

Lancashire Geological Association: 15 July: Clitheroe Area, 25 July: Littleborough

28 July: Visit to Cefn Mawr Qy and Moel Findeg, North Wales. Peter del Strother, 2 September: Burniston Scarborough

with MGA Contact: Jo Holt - 01457 874 095

4 August: Bioblitz at Brockholes again. Joint event with GeoLancashire (RIGGS). Open University Geological Society North West Branch:

Aug 25/26 or Sept 01/02 TBA: The Great Harwood Dean and Whalley Nab. Alan15 July: Far Arnside day trip. Mike Dewey (CGS)Harrison17-19 August: OUGS 40th Anniversary Symposium, Northampton University

Contact: Jennifer Rhodes – s_f_rhodes@hotmail.com

9 September: DIY Lyme Park day trip (including low mobility walk)

Leeds Geological Association: Contact: Jane Schollick – 01704 565 751

8th July: The Pre-Cambrian Rocks of North-West Charnwood Forest. Keith Russell Society (Mineralogy):

Ambrose, BGS Website: http://www.russellsoc.org/nwbranch.html

5th August: Grange Top Quarry, Ketton, Rutland. Peter del Strother, MGA

Contacts: Alan Dyer – Aldilp@aol.com or Harry Critchley – 01

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7th-9th September: Residential Weekend - Lleyn Peninsula, Wales. Dr Charlie

The Manchester Museum:

7th-9th September: Residential Weekend - Lleyn Peninsula, Wales. Dr Charlie
 Bendall, Aberystwyth University
 14 July: Big Saturday: Volcanoes

Contact: Anthea Brigstocke – anthea.brigstocke@zen.co.uk Website: http://www.museum.manchester.ac.uk/whatson/