



## Bulletin of the North Staffordshire Group of the Geologists' Association Number 102 : July 2012



### SUMMER FIELD PROGRAMME 2012

Each person attending field meetings does so on the understanding that they attend at their own risk. The NSGGA has public liability insurance through a GA insurance policy that also carries limited personal accident cover for members attending meetings or field trips. Non-members pay £2 to cover temporary membership giving them insurance cover.

A field fee of £2 per head is normally charged for members and non-members to cover leader's expenses.

In the continued absence of a field secretary we are running a number of ad-hoc field trips this summer. If you would like to help the NSGGA by becoming the field secretary please contact the chairman, David Osborn.

### Cheddleton Area

**Saturday September 29, 2012**

**Leader: Joe Crossley**

The area around Cheddleton Railway Station includes the unconformity between the Permo-Triassic sandstones and the Carboniferous Millstone Grit, which can be mapped to show its considerable relief - the Caudon Canal provides a very convenient datum! An actual exposure of the unconformity can be viewed a mile or so from the Station.

*Could anyone who wishes to attend the above field meeting let David Osborn ([david.d.osborn@talktalk.net](mailto:david.d.osborn@talktalk.net)) know as soon as possible.*



*Cheddleton  
Sandstone,  
Cheddleton*

## Hartshill - Nuneaton Area

### Joint with Warwickshire Geological Conservation Group

### Saturday September 1, 2012

**Leader Alan Cook**

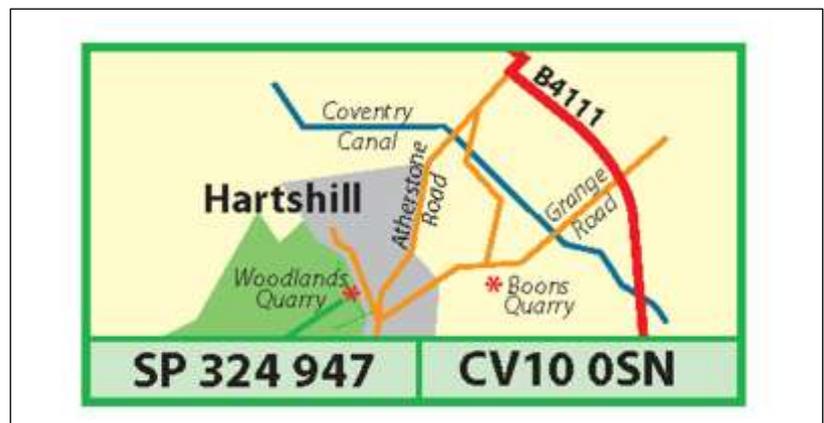
**Meet 10:30 at Woodlands Quarry**

**Woodlands Quarry: SP 325 947 NOTE: ABSOLUTELY NO HAMMERING AT THIS SITE**

This disused quarry exposes a sequence of rocks laid down beneath the during late Precambrian to early Cambrian times, and is of international significance because of the early Cambrian fossils which are found here. Fossils of this age are exceptionally rare, and are found at no other locality in Britain, the nearest comparable assemblages being found in Siberia and Scandinavia. The site is of great importance because of the information which it yields concerning the evolution of Britain and Western Europe during this period.

**Boons Quarry: SP 330 946**

Precambrian Caldecote volcanics - feldspar and quartz crystal-lapilli tuff with subordinate angular to sub-rounded lithic blocks. Intercalations of grey to green, fine, well-laminated to massive tuffaceous mudstone, siltstone and sandstone



*Could anyone who wishes to attend the above field meeting let David Osborn (david.d.osborn@talktalk.net) know as soon as possible.*

## SUMMER FIELD PROGRAMME 2013

**Early Notice : Pembrokeshire Weekend 21-23 June 2013**

**Leader: Ian Stimpson**

Some dates for your diaries. The NSGGA weekend field trip for 2013 has been pencilled in for the weekend of Friday 21 - Sunday 23 June, 2013. The itinerary is very provisional but should include a lecture on the geological evolution of Pembrokeshire on the Friday evening, a day on the spectacular Marloes Sands on the Saturday examining the Silurian volcanics and sediments and Sunday morning on the beach at Broad Haven looking at the Upper Carboniferous sediments and the intense Variscan deformation.

*Could anyone who provisionally wishes to attend the above field meeting let David Osborn (david.d.osborn@talktalk.net) know so that we can gauge potential interest.*

### *Three-chimneys at Marloes and a fault-propagation fold at Broad Haven*



## **WINTER LECTURE PROGRAMME 2012/13**

The winter lecture programme is still being finalised but please reserve the second Thursday of the month for October to March in your diary for evening talks. All talks are held in William Smith Building Room 0.06, Keele University

The provision programme, but subject to change is as follows:

**Thursday October 11, 2012 : 19:30**

Prof. Chris King (Keele) - How to find a diamond mine.

**Thursday November 8, 2012 : 19:30**

Prof. John Underhill (Edinburgh) - Wolverson Cope Memorial Lecture

**Thursday December 13, 2012 : 19:30**

Christmas Social

**Thursday January 17, 2013 : 19:30**

To be confirmed

**Thursday February 7, 2013 : 19:30**

Dr Dougal Jerram (Director - DougalEarth) - How big is your bang? (Volcanoes)

**Thursday March 14, 2013 : 19:00**

AGM and Chairman's Address by David Osborn

## GeoConservation Staffordshire : Geoconservation Opportunities

Geoconservation Staffordshire has a couple of field site clearance events in the coming months to which members of the NSGGA are more than welcome to attend.

**Hulme Quarry SSSI & NNR (Park Hall Country Park),  
Weston Coyney, Stoke-on Trent  
Geoconservation Day - Sunday 23 September**



Meeting at the golf course depot building (SJ 927448) at Park Hall CP at 9.45am for the morning session (10am-12noon) or at 12.45pm for the afternoon session (1pm-3pm). Simply turn up to either one of the 2 sessions or bring a packed lunch and stay for the whole day.

There is plenty of car parking there and we can easily walk to the work areas. Note that the rangers will provide all tools and supervision. Volunteers just need to bring gloves, work boots, packed lunch, gardening clothes and wind- and water-proof clothing etc. Although Park Rangers will provide drinks in the golf depot at lunchtime you may well need other refreshing drink to hand while you are working - so best to bring another with you on the day .

As things stand at the moment we will be working on removing vegetation from in front of a number of the SSSI rock faces both within and outside the 'main canyon' area. The precise location(s) of the site clearance work will be defined by Park Rangers on the day.



*Kidderminster Formation  
Conglomerates at Park Hall*

Unlike similar events organised recently by GeoConservation Staffordshire, this event is typically organised by Park Rangers. This event has in fact run very successfully for many years with the support of volunteers from the NSGGA and GeoConservation Staffordshire and members of the public. If you haven't participated in this event before and you're 'up for a spot of site clearance' this is an event not to be missed. The geology as you might expect in an national nature reserve with a geological SSSI at its heart is simply outstanding (fluvial deposits of the Triassic Sherwood Sandstone Group with some spectacular sedimentary structures some excellent fault structures too - come and 'see' how those Triassic rivers flowed). If your interests lean more towards the environment, conservation or site management then this event is simply a classic - a celebration of good working practice with sensitive management of both geodiversity (rock and landscape features) and biodiversity (wildlife & habitats) interests alike. Always different and always good fun and there's no need to book. It would be good to see you there - the more the merrier!

## Grindon Moor Quarries (SK 060559), Staffordshire Moorlands Geoconservation Day - Saturday 10 November 2012



Introduction: The disused quarries on Grindon Moor are located on high ground 1km NE of Onecote in the Staffordshire Moorlands - a short distance (circa 400m) east of the B5053 Onecote - Warslow road, on a minor road leading to Grindon. They once provided stone for local buildings. Two small quarries, each roughly 40x40m in extent, are recognisable either side of an access track no more than 100m from the road. We shall be working in the quarry to the south of this track which is owned by the National Trust. Although the National Trust have made significant improvements to the site quite recently, exposures are still overgrown and much remains to be done before the site is returned to its original condition. The purpose of our visit will improve access and exposure by clearing vegetation from the access track, the quarry floor area and the quarry faces. It is possible that on the day we will be joined by a one or two (come to see what we are about) or other like-minded volunteers from National Trust) so this could present another opportunity to show case our important work in a wider context. Please note that although the quarry is quite overgrown, it is quite sheltered from the wind and generally the quarry walls are less than 2-3m in height. Both GeoConservation Staffordshire and the National Trust are keen to re-expose this section in order to assess its educational potential and hopefully promote its use. If features of sufficient geological interest are revealed (see below), the site may well be considered for inclusion in any revised Hamps and Manifold geotrail - should funds for such become available.

Geodiversity Interest: The site offers one of the finest and (arguably) the best accessible section of the turbiditic Onecote Sandstone - a rare calcareous sandstone of Brigantian (D2) age in the 'Mixon Limestone-Shales Formation' close to the top of the 'Carboniferous Limestone'. This formation is now regarded as part of the Widmerpool Formation and lies within the Craven Group of BGS's new stratigraphical scheme for the Carboniferous. Despite poor exposure, Onecote Sandstone outcrops are known to extend across Grindon Moor as far as Warslow and, in a circular outcrop (Mixon Anticline) between Onecote, Feltysitch and Upper Elkstone. The rocks formed around 327 million years ago in a warm tropical sea when Britain was straddling the equator, and in a narrow but rather deep seaway separating shallow sea areas to the north-east (most of Derbyshire) from those to the south-west (Weaver Hills area). The area was tectonically unstable at this time and these turbidity currents may have been triggered by local earth movements. So, with turbidites about we shall be looking closely to see if we can find any current-oriented sedimentary structures such as cross lamination (migrating ripple marks) or flute casts to see which way those turbidity currents were flowing. Fossil brachiopods are known from this site too. Elsewhere in Staffordshire and in the subsurface, the Onecote Sandstone is said to contain petroleum so it is important that sections of this important local 'reservoir' rock are made available for study at the surface.

Start: Meet in the small lay-by (SK 063557) just east of quarry entrance (SK 061560) at 10.00am. If parking on the grass verge close by, please be careful - be aware of soft ground, ditches and obstructions, and leave enough space for tractors to pass. Note parking space is limited so if possible do team up with others to reduce the likelihood of parking difficulties. For safety sake please assemble on the roadside verge, keep off the road. The quarry is a short distance (<200m) from the car parking area. Please do not leave valuables in your car.

**Bring:** Please bring warm, waterproof clothing / overalls, sturdy footwear and any preferred gardening gloves / small hand tools (e.g. secateurs, loppers, hand saws, non-wire brushes, hand trowels and forks etc) if you have them. A few gardening gloves and small hand tools will be available to those without their own on-site. Further guidance on the use of tools and other safety instruction will be given on arrival and before any work begins.

**Food & Lunch:** A limited supply of light refreshment (biscuits etc) will be available free on site (courtesy of GeoConservation Staffordshire) to keep you going throughout the day. Please bring your own drinks and a packed lunch. Local amenities are available 2-5km away in Onecote, Butterton & Warslow.

**Finish:** About 4.00 pm                      **Numbers Limit:** 25

**Booking:** To book your place on this visit please contact Pat Cossey preferably by email (patrick.cossey@yahoo.com) or on 01270 872002 by Friday 18 October

## **NSGGA NEWS**

### **John Myers' Medal and Prize**

The following students were presented with the John Myers' Awards by Mike Fereday on behalf of the NSGGA at the Keele University Graduation Ceremony on July 10.

#### **Year 3 : Bachelor's Degree**

**Winner:** Hana Sweetman awarded a Medal and £150 prize money for her field based mapping report of the Snowdonia Region, North Wales.

**Runner-up:** Emma Waldock receiving £50 prize money for her field based mapping report of La Majua, Cantabria, NW Spain

#### **Year 4 : Master's degree**

**Winner:** Claire Howell awarded a Medal and £150 prize money for her project on 2D Geochemical Characterisation of Late Carboniferous Concretions. Constraints for 3D fossil preservation

**Runner-up:** Kirstin Johnson awarded £50 prize money for her project on 3D Architecture & Depositional environment of the Jurassic Kayenta Formation, Paradox Basin, Utah, USA.

## Other Societies

### Black Country Geological Society

Saturday 6 October @ 10:30

Barrow Hill Local Nature Reserve Conservation Day.  
Pensnett, Dudley, next to Russells Hall Hospital, DY5 4JH.

Sunday 14 October @ 10:00

Charnwood Forest, led by Mike Allen. Meet at the services off the M1 junction 22/A511

More details at [www.bcgs.info](http://www.bcgs.info)

### East Midlands Geological Society

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

### East Midlands Regional Group of the Geological Society

More details at [www.geolsoc.org.uk/gsl/groups/regional/emrg](http://www.geolsoc.org.uk/gsl/groups/regional/emrg)

### Liverpool Geological Society

More details at [liverpoolgeologicalsociety.org.uk](http://liverpoolgeologicalsociety.org.uk)

### Manchester Geological Association

Lectures at the Williamson Building, University of Manchester

Wednesday 19 September

NW Highlands. Leader Kathryn Goodenough  
A visit to the North West Highlands of Scotland based round "A Geological Excursion Guide to the North-West Highlands of Scotland" by Kathryn and her colleague at BGS, Maarten Krabbendam

Saturday 6 October @ 11:00

Pott Shrigley. Leader Paul Aplin. To examine the Lower Coal Measures, evidence of former coal mining and the relation between geology and scenery

More Details at [www.mangeolassoc.org.uk](http://www.mangeolassoc.org.uk)

### North West Regional Group of the Geological Society

More details at [www.geolsoc.org.uk/gsl/groups/regional/nwrg](http://www.geolsoc.org.uk/gsl/groups/regional/nwrg)

### Shropshire Geological Society

Lectures in the Shire Hall, Shrewsbury

Saturday 15 September

Breidden and Middletown Hills, to be led by Andrew Jenkinson and David C Smith.

More details at [www.shropshiregeology.org.uk/SGS/SGSintro.html](http://www.shropshiregeology.org.uk/SGS/SGSintro.html)

### Warwickshire Geological Conservation Group

Field programme to be confirmed.

Saturday 1 September @ 10:30

Woodlands & Boon's Quarries, Hartshill. Leader: Alan Cook. Joint with NSGGA, see page 2 of Bulletin

More details at [www.wgcg.co.uk](http://www.wgcg.co.uk)

### West Midlands Regional Group of the Geological Society

More details at [www.geolsoc.org.uk/gsl/groups/regional/wmrg](http://www.geolsoc.org.uk/gsl/groups/regional/wmrg)

### Western Institute of Mining and Minerals

More details at [www.iom3.org/wimm](http://www.iom3.org/wimm)

**NSGGA - Next Committee Meeting:**

**Thursday 13 September @ 19:00** In room WS1.44, the William Smith Building,  
Keele University

**Contacts List: NSGGA Committee 2012-13**

**Chairman: David Osborn**

Stretton, 2 Croyde Place, Meir Park, Stoke-on-Trent, ST3 7XD. Tel 01782 396692

email: [david.d.osborn@talktalk.net](mailto:david.d.osborn@talktalk.net)

**Vice-Chairman: Dr Patrick Cossey**

Tel. 01270 872002

e-mail: [patrick.cossey@yahoo.com](mailto:patrick.cossey@yahoo.com)

**General Secretary: Eileen Fraser,**

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**Treasurer: Brenda Kay,**

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**Field Sec.: Vacant**

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**Executive Committee (honorary):**

Dr. Colin Exley; Terry Jones; David Thompson; Ted Watkin.

**Honorary Life Member: Ann Myatt**

**Executive Committee (elected):**

Dr Lloyd Boardman; Dr Stuart Egan; Carol Fereday; Mike Fereday; Dr Peter Floyd; Janet  
Osborn (Minutes Secretary); Vicky Tunstall (John Myers Awards);

**Executive Committee (co-opted):**

Don Steward, John Reynolds; Michael Kelly (Keele GeoSoc).

**NSGGA web pages:** [www.esci.keele.ac.uk/nsgga](http://www.esci.keele.ac.uk/nsgga)