

Bulletin

Number 58

July 2001



Sunday 22 July 2001 - Styal Geological Trail

Leader: Fred Owen (OUGS and Manchester Geol. Assoc.)

Meet at 2.00pm in the main Styal Country Park car park, north of Wilmslow.

For further information contact Jane Michael (MGA) 0161 366 0595. National Trust members are recommended to bring their membership card, especially if they want to visit the Mill in the morning. This meeting arranged by MGA.

Sunday 12 August 2001 - Wren's Nest & Saltwells Nature Reserves

Leader: Graham Worton (Keeper of Geology at Dudley Museum)

Meet at the Wren's Nest Wardens Centre at 11.00am.

Field fee: Members £2 non members £4

Sunday 30 September 2001 Brownend Quarry, Waterhouses

Leader: Steve Alcock (reserve manager)

Conservation Day, meet at Brown End Quarry at Waterhouses (SK090502) on the Leek to Ashbourne Road at 11.00am. Bring your old clothes and suitable tools to cut down small shrubs and remove brambles and weeds. Work will carry on until about 4.00pm, but you don't have to be there all day! Please come along to this conservation working party at the Staffs Wildlife Trust's only geological reserve, even if only for an hour or two - there is plenty of weeding to do!

Bring some food and drink.

Steve will also be discussing ideas for future development work at the quarry.

contact Steve Alcock: 01538 360431

Non members are welcome at any of the field events

All trips are subject to developments with Foot & Mouth

If you want more details about the field trips please contact:

Janet Fairclough: Tel: 01782 641812 E Mail: jfair1sc@btinternet.com or

Mike Fereday: Tel 01782 714643 E Mail: carol@burnett40.freeserve.co.uk

Draft field programme for 2002

Charnwood/Bradgate Park.

Gower Peninsular Weekend

leader Geraint Owen (University of Swansea)

Lake District/ Northumberland Weekend

leader Peter Styles (University of Keele).

Ercal Quarry, Shropshire

leader Ian Stimpson (University of Keele).

Mapping in the Castleton Area

leader Chris King (Earth Sciences Education Unit – University of Keele)

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Report of the field trip to Carsington Water and Ballidon Quarry 17 June 2001

On Sunday 17 June 14 people (5 NSGGA committee members, 5 visitors and 4 NSGGA members) took part in the field trip to Carsington Water and Ballidon Quarry in the Peak District of Derbyshire. Neil Aitkenhead, formerly with the British Geological Survey (BGS), started the day with an illustrated talk about the failure of the Carsington Water Dam in June 1984. The dam collapsed during construction, fortunately before any water had been pumped into the reservoir. He described the investigations that took place following the collapse, including the role of the BGS. Failure was due to “the brittleness of the soil and the geometry of the section. In addition the yellow clay (head) foundation and the existence of solifluction shears within the foundation were contributory factors to the failure”. For the uninitiated solifluction is “soil creep on sloping ground characteristic of regions subjected to periods of alternating freezing and thawing”. The party then walked across the dam and Neil described the geological features of the whole valley.

After lunch at Carsington, the party went to Ballidon Quarry. This is a working quarry operated by Tarmac. We were given a full tour of the quarry and Phil Locksley (Tarmac’s representative) and Neil described the geology of the site and how it is operated. Tarmac has a licence to extract 1 million tonnes a year from the West and East quarries. The limestone is 90% pure calcium carbonate of a very high grade. Approximately 60% of sales are for industrial end uses, the remainder going for road construction. The West quarry is of Asbian (D1) age; the Bee Low limestones, whilst the East quarry is from Brigantian (D2); the Monsal Dale limestones. These latter are much darker than the Bee Low. The former are made up of calcareous sand size grains cemented together by limestone mud to form biomicrite. Within the face of several stands we could see narrow bands of clay from weathered volcanic lava that had come from low shield volcanoes (low viscosity lava that had spread over a large area). This clay band (or way board) causes great problems to the quarry operators as the red/black clay causes staining of the limestone that reduces the quality and hence the value.

All the participants agreed that the visits had been most informative and interesting; those who did not attend missed a real treat. I strongly urge you to come along to one of the field trips later on in the year; we need your support and participation.

Mike Fereday

Articles & Publications

Ford, T.D. & Torrens, H.S. 2001 **

A Farey story: the pioneer geologist John Farey (1766-1826)

Geology Today 17 March-April 2001 pp.59-68

John Farey had been taught the recording of stratigraphical units by William Smith and was one of the first to apply these 'modern geology' principles; Farey's major work was in mapping Derbyshire.

Thompson, D.B. 2001 **

An Enigmatic Borehole Core with Triassic Trace Fossils displayed in the Entrance Foyer of the Earth Sciences Department of Keele University

Bulletin of the North Staffs. Group of the Geologists' Association 58 Appendix 14 pp.1-9

Associated with this issue of the Bulletin is a detection story to try to deduce where the borehole core in the entrance foyer of Keele's Earth Science Department originated. Copy available [here](#)

** items are available for reference (by prior appointment) at the Geological Records Centre,
Natural History, The Potteries Museum & Art Gallery, Hanley, Stoke-on-Trent ST1 3DW ☎ 01782 232323

ROCKWATCH EVENTS (OPEN TO NON ROCKWATCH MEMBERS)**Saturday 4 August 2001 – 10 00 am Brown End Quarry, Waterhouses (on the Leek to Ashbourne road)**

A visit has been arranged to Brown End Quarry in conjunction with Staffs Wildlife Trust and Wildlife Watch. The purpose of the visit is to encourage children and parents to examine the geology, flora and fauna with a view to holding a poster competition. Ideas from this competition may possibly be used to complement the existing interpretation boards.

To enter the poster competition, please **contact Mike Fereday before 15 July 2001**. There is an entry fee of 50p per entry and each entrant will receive a pack of information, including photographs that will help with the preparation of the poster.

Wednesday 15 August 2001 – 11 00 am Cauldon Quarry and Cement Works, Waterhouses

Blue Circle Cement has kindly agreed to a weekday visit to Cauldon Quarry and Cement Works. Parents and children will be able to visit the quarry and cement works, spend time searching for fossils and have their photograph taken alongside a large dumper truck (bring your camera). Participants will be required to wear safety wear provided by Blue Circle Industries (i.e., hard hats and orange jackets). The numbers will be restricted to 30 and only children over 9 years old will be able to tour the actual cement works. However, activities will be provided for any younger children. **Please contact Mike Fereday to register for the visit.**

For more details of any of these events please contact:

Mike Fereday, Rockwatch co-ordinator, 28 Brookside Close, Newcastle, Staffs, ST5 2HX
 ☎ 01782 714643 e-mail: carol@burnett40.freeserve.co.uk

Extractive Industries

Plans by Nottinghamshire based StrataGas to extract methane from the coal seams underlying Baldwins Gate and Seabridge will be presented to the relevant planning committee soon. The drilling of four exploratory wells between Seabridge and Whitmore are proposed and will be discussed by Newcastle-under-Lyme Borough Council on 19 June, and by Staffordshire County Council on 19 July 2001.

Edinburgh Oil & Gas, an exploration and production firm, have submitted a planning application to Stoke-on-Trent City Council to extract methane from the coal seams of the former Hem Heath Colliery, Trentham. Tests already taken have shown that at present 85% pure methane gas is being emitted at 1,000 litres per second from the disused mineshaft. If tapping of the gas is approved, the firm expect to unlock an estimated 2.5 million cubic feet of natural gas from the coal seams - enough to generate electricity for 10,000 homes. At present the naturally produced gas is escaping directly to the atmosphere and it is argued that tapping this source will significantly reduce the amount of this particular harmful greenhouse gas in the local air. In a separate application Cogen, a subsidiary of Innogy, are proposing to set up a small power station to generate electricity from the captured gas. The applications are expected to be considered by the City Council in July-August 2001.

Staffordshire RIGS Group

- * **next SRIGS committee meeting: Tuesday, 6 November 2001 at 7.30pm.**
 at the Staffs. Wildlife Trust offices, Coutts House, Sandon. Contact Sue Lawley at the SWT for details ☎ 01889 508534 or contact SRIGS Chairman, Ken Rout ☎ 01785 662291

NSGGA Committee 2001-02**Chairman: Bill Fone,**

23 Mill Farm Drive, Randlay, Telford TF3 2NA ☎ 01782 294284 (work) ☎ 01952 596656 (home)
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24 Elm Tree Lane, Bignall End, Stoke-on-Trent ST7 8NG ☎ 01782 721576

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Membership Sec.: Mike Brown,

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Natural History, The Potteries Museum & Art Gallery, Bethesda Street, Hanley, Stoke-on-Trent ST1 3DW ☎ 01782 232323
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Executive Committee (honorary):

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

Executive Committee (elected):

Mike Fereday; Chris King; Phil Pye; John Reynolds; Ken Rout; John Winchester.

Executive Committee (co-opted):

ROCKWATCH

In addition a representative from the Staffs. University Geol. Soc. and the Keele Geol. Soc. is invited to attend committee meetings

co-ordinator: **Mike Fereday**

☎ 01782 714643 / (713227 evg), mobile 07785 334414 email: carol@burnett40.freeserve.co.uk

Why not visit the NSGGA web pages: www.esci.keele.ac.uk/nsgga

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