



# OUTCROP

The Newsletter of the Avon RIGS Group

*Issue No. 15      Autumn 2002*

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## **RIGS are Regionally Important Geological and Geomorphological Sites**

The Group's aim is to identify, survey, protect and promote geological and geomorphological sites in the area of the former County of Avon –the modern Unitary Authorities of Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire. RIGS are selected for their educational, research, historical and aesthetic value.

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### **The North Somerset Review**

The main current project for the Avon RIGS Group is a reviewal of the designation of sites in the area covered by the North Somerset Unitary Authority. The information will be incorporated into North Somerset Council's local plan.

In the course of this work, the forty RIGS in North Somerset have been revisited during the summer and

autumn of his year. Many had not been officially visited since John Hart's survey of the late 1980s. The range of types of site is wide: caves, roadsides, small overgrown exposures, shorelines and vast aggregate quarries. Almost all of the sites are likely to be redesignated by the Group's Designation Committee.



## Focus on Chipping Sodbury

### Hamstead Farm Quarry

Hamstead Farm is the third in the succession of huge aggregate quarries in Chipping Sodbury. It follows on from the now closed Barn Hill and Southfields quarries. They all exploited the Carboniferous Limestone, the outcrop of which is narrow there because of its steep dip.



The main interest, in addition to being able to see so much Carboniferous Limestone in one place, is in the Rhaetian beds which lie on top with marked unconformity. Like the other quarries, these beds have yielded quantities of fish and reptile bones, teeth and scales. They have been found in pockets in depressions in the eroded Black Rock Limestone and Dolomite.



Recent blasting has revealed a cave that has been developed along the line of a small fault. It is flooded and has been followed for about 20 metres.



Quarrying has also turned up large growths of minerals: pink and yellow baryte sandwiched between layers of calcite, pyrite, blende and galena. Visiting party from the Russell Society, whose interest is in minerals, has also located a small vein of fluorite in the quarry.

## Building stones in Chipping Sodbury

Chipping Sodbury is a good example of a medieval market development with a fine range of post-medieval buildings. For the geologist, the old buildings reflect the great diversity of rocks in the immediate area –a whole museum of local geology.



Chipping Sodbury's market place



Most are of rubble stone blocks and keen-eyed geologists can see various Carboniferous Limestones, Old Red Sandstone, Lower Lias and White Lias limestones, Pennant Sandstone and Dolomitic Conglomerate. Where finer stones have been required for window and door surrounds, quoins and string-courses, Middle Jurassic oolitic limestones have been brought in from the nearby Cotswold Hills and from Bath.



The late-medieval church is mainly rubble-built and its walls contain the greatest variety of stones.

Whereas rubble walls were often rendered to make them more respectable, many buildings in Sodbury have patterns that were clearly meant to be seen. Usually these have courses of reddish Pennant Sandstone flags between courses of contrasting pale grey Carboniferous Limestone.

## One that got away

Near Naish Farm in the parish of Clapton-in-Gordano, North Somerset is a deep holloway that is listed as a RIGS. This is because the thinly-bedded Black Rock Limestone (Early Carboniferous) is bent into a gentle anticline that is related to the nearby Naish House Thrust Fault. The beds also contain fossil corals and brachiopods.

Unfortunately, this fact was overlooked when permission was sought to infill it. The planning process went through and the holloway can be filled, with the loss of the RIGS.

## Conygar Quarry

There is some good news, however: Conygar Quarry in Clevedon (a former SSSI and a current RIGS) is not to become a housing estate, because the developer was too slow in appealing against the decision of the council to refuse his application.

Local residents are not happy that the quarry may resume production of its Pennant Sandstone, whereas geologists might take a somewhat different view!

## A Kingswood coal seam

The development of the Kingswood area, east of Bristol, was bound up with the coal mining industry, but it is rare these days to see any actual local coal.

In August this year a small temporary excavation near Cossham Hospital revealed eleven feet of Upper Carboniferous rocks. A one-foot seam of coal sits on a grey clay and is succeeded by Pennant Sandstone, much of which is current-bedded with abundant carbonaceous fragments.

Although the coal is soft and friable from weathering, a sample has been gratefully received into the collection of Bristol Museum. There were once dozens of collieries around Bristol, but coal was such a common everyday thing that hardly any was collected.

## Saltford GWR cuttings

Part of the fallout from the Hatfield and other recent railway incidents is that one of our best exposures of Lower Lias rocks has been covered up.

Saltford cuttings were dug during the construction of the Great Western Railway in the late 1830s. The whole section was logged at the time by William Sanders and the skeleton of an ichthyosaurus was excavated and given to the Bristol Institution by Isambard Kingdom Brunel himself.

At one time the cuttings were designated as a Site of Special Scientific Interest and became a RIGS when the listing was changed.



In the 1890s a large landslide took place just by the eastern entrance to the tunnel and occasionally over the years small slips have occurred.

Now that RailTrack has become so risk-averse, the slight possibility of an accident has provoked action. The sides of the cutting have been covered with netting fastened down with rock

bolts and, in places, soil has been added and grass now grows.



So, unfortunately the type locality of the Saltford Shales is no more.

Ironically, one of the abseilers doing the work is the son of a prominent geologist!

## Rock It Event 2002

The August Bank Holiday Monday again saw an invasion of geologists on the Bristol-Bath Railway Path.

Members of Avon RIGS, Bristol Naturalists' Society, Bath Geological Society and Bristol Museum turned out to raise the profile of geology among passing walkers and cyclists. As in previous years, the location was in the Saltford Midland Railway cutting, where there is a cleared section of the Lower Lias beds. There is also a bridge over the cutting to give shelter in case of rain. The weather in fact turned out to be good again and tempted out a large number of users of the path.

Advance publicity in the press in Bristol and in Bath meant that some passers-by were already aware of the event and had brought along fossils and minerals for identification.

This year we were honoured by the presence of Eric Robinson, of the Geologists' Association. Eric has laboured long at bringing a better appreciation of geology to the general public.

## Minerals of the Mendips

In March of this year the Russell Society published a small guide to Mendip Minerals, including some from sites that are covered by the Avon RIGS Group area. It has been edited by Gary Morse and costs £10, including post and packing. Visit the society's website at [www.russellsoc.org](http://www.russellsoc.org) to check availability and to order a copy.

At the same site it is possible to download a list of Mendip minerals as a pdf file. It contains a fair amount of information on minerals, sites and museum collections.

## Coming talks and field trips

### 5 December

*When worlds collide –scientists in Hollywood* Dr Ted Neild, Science and Communications Officer, Geological Society of London. **Bath GS.**

### 11 December

Members' Evening, with short presentations. **BNS**

### 15 January 2003

AGM and talk *Cave records of past climates*. Professor Chris Hawkesworth **BNS**

### 12 February

*Silica springs & exceptional fossils*. Dr Alan Channing. **BNS**

### Sunday in February or March

*Annual clean-up of Brown's Folly Nature Reserve, Bathford*. **Bath GS**

### 6 March

*Britain in the Ice Age: unstable slopes in a frozen landscape*. Professor Charles Harris (Cardiff). **Bath GS**

### 12 March

*The history of the carbon atom*. Dr Reg Bradshaw. **BNS**

### 3 April

*Jigsaw palaeontology: reconstructing the palaeoecology of echinoderms of the Jurassic seas around Bath and the Cotswolds using fragmentary remains*. Aaron Hunter (London University). **Bath GS**

### 1 May

Colin Horstmann Memorial Lecture *The A-Z (nearly) of precious stones*. John Willmouth **Bath GS**

10/11 May

*Newlands Corner to Albury.* Filed trip in Surrey led by Iain Fletcher **Bath GS**

5 June

*The dating game: one man's search for the age of the Earth.* Dr Cherry Lewis (Bristol) **Bath GS**

3 July

*Meteorites.* Dr Joe McCall. **Bath GS**

12 July

*Tour of ECOS stones, Frome.* Led by Dr Eric Robinson **Bath GS**

## Contacts for further information

### Bath Geological Society (Bath GS)

Secretary: Elizabeth Devon, Heleigh House, Middle Hill, Box, Wiltshire SN13 8QB tel/fax: 01225 742752, email: [bathgeolsoc@bath.ac.uk](mailto:bathgeolsoc@bath.ac.uk)

Meetings are held at 7.15 pm, Bath RLSI, 16–18 Queen Square, Bath.

Website: [www.bath.ac.uk/bathgeolsoc](http://www.bath.ac.uk/bathgeolsoc)

### Bath Royal Literary & Scientific Institution (BRLSI)

16–18 Queen Square, Bath; tel: 01225 312084, fax: 01225 429452

email: [exxbrlsi@bath.ac.uk](mailto:exxbrlsi@bath.ac.uk)

Website: [www.bath.ac.uk/brlsi](http://www.bath.ac.uk/brlsi)

Queen's Road, Bristol BS8 1RL.

Reception: 0117 922 3571

e-mail: [general\\_museum@bristol-city.gov.uk](mailto:general_museum@bristol-city.gov.uk)

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### Bristol Lapidary Society

Jim Edmundson, 60 Lays Road, Keynsham, Somerset

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### Bristol Naturalists' Society Geological Section (BNS)

Field Secretary: Simon Carpenter, 16 Martins Road, Hanham BS15 3EW

tel: 0773 2116671, email: [simonccarpenter@yahoo.com](mailto:simonccarpenter@yahoo.com)

Programme Secretary: Paul Stevenson, Bristol City Museum & Art Gallery, Queen's Road, Bristol BS8 1RL tel: 0117 922 3593.

Meetings: 7.00, University of Bristol Earth Sciences Department lecture theatre (G25).

Website: [www.bristolnats.org](http://www.bristolnats.org)

### Open University Geology Society (OUGS)

Jan Ashton-Jones, tel: 01432 870827, email: [Jashtonjon@aol.com](mailto:Jashtonjon@aol.com)

Website:

[www.btinternet.com/~mtne/OUGS/](http://www.btinternet.com/~mtne/OUGS/)

### University of Bristol (UB)

8–10 Berkeley Square, Bristol BS8 1HH, tel. 0117 928 7153

Website: [www.bris.ac.uk/](http://www.bris.ac.uk/)

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### Bristol City Museum & Art Gallery

### West of England Geologists' Association (WEGA)

Deborah White, 66 West Town Lane,  
Brislington, BS4 5DB

Website: [www.wega.org.uk](http://www.wega.org.uk)

## How you can support the work of the Avon RIGS Group

Surveying and interpreting geological and geological sites in the former County of Avon can be very interesting and rewarding work. The Avon RIGS Group is always looking for fresh volunteers, so if you are interested and able to commit a small amount of time to this work, please contact one of the following Avon RIGS members:

Andrew Mathieson

Eversleigh, Newlands Hill, Portishead,  
BS20 9AZ

email: [andrew@mathiesons.org.uk](mailto:andrew@mathiesons.org.uk)

Simon Carpenter–

16 Martins Road, Hanham, BS15 3EW,  
tel: 0117 960 4093

email: [100014.2332@compuserve.com](mailto:100014.2332@compuserve.com)

## Contributions to *Outcrop*

Short articles and photographs of geological and geomorphological interest are always welcome. Please contact Roger Clark–

City Museum & Art Gallery, Queen's  
Road, Bristol BS8 1RL,

tel: 0117 922 3593, email:  
[roger\\_clark@bristol-city.gov.uk](mailto:roger_clark@bristol-city.gov.uk)

## Getting yourself on to the *Outcrop* mailing list

To receive your FREE copy of the Avon RIGS Newsletter, please contact BRERC, Ashton Court Visitor Centre, Long Ashton, BS41 9JN, tel: 0117 953 2140, fax: 0117 953 2143, email:

[brerc@btconnect.com](mailto:brerc@btconnect.com)

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