



NEWSLETTER No. 74 - April, 1989:

(February newsletter should have been numbered No. 73)

Meetings are held at The Saracen's Head, Stone Street,
Dudley - 7.30 for 8 o'clock.

Forthcoming meetings:

Sunday 30th April: Field trip "Murchison's Dykes and Grinshill Building Stones." Leader Dr. David Thompson of Keele University, chairman of N. Staffs Geological Society.

At Grinshill, Shropshire, tertiary dykes penetrate both Bunter and Keuper series triassic sediments (Sherwood sandstone group and mercia mudstone group). Later Barytes rich mineralisation has occurred. Come and join us at 10.00 a.m. in the Elephant and Castle pub car park in Grinshill village, 9 kms NNE of Shrewsbury, just west of the A49.

Monday 8th May: Lecture "The Morecambe Bay Gas Field" by Dr. Alan Levison, Manager of Development Geology British Gas, London.

The gas field in the Irish Sea off Morecambe is one of the U.K's most important fields; production began in January 1985 and it now produces some 10% of daily consumption, with an expected life of 40 years. The field was surveyed and located by geologists of British Gas Exploration Dept. and represents a major triumph of applied geology. Dr. Levison played a major role in this achievement, and we are particularly pleased that he is coming to describe his work to the Society.

His talk will describe the gas field and its geology, and the way it was located and then developed. The gas is held in sandstone strata of Permian and Triassic age, and the other two requirements - a source of gas from Upper Carboniferous coal seams, and a strata of sealing rock above to prevent escape of the gas - were both believed to be present.

Wells were drilled and gas was found. How easy to be wise afterwards, but one can imagine the anxiety during the exploration.

Members may have seen his article on this subject in the May/June '88 issue of GEOLOGY TODAY.

May 12-14th: Weekend field meeting at Slapton Ley Field Centre, Devon. Led by the warden Dr. Keith Chell. Joint with Shropshire Geological Society. Cost £30 accommodation at the centre (there may be an extra charge for local transport). Contact Sue Gibson, Walford, New Road, Ludlow SY8 2LS. Telephone (0584) 5167. Booking form Page 6.

Monday 19th June: Evening field trip to Uffmoor Wood. Woodland, wildlife and geology. Leader Alan Cutler.

Monday 3rd July: Barbecue at Oldswinford Hospital, Stourbridge. Good food, a bar and good music and with your help, good company. Further details contact Andrew Rigby (0384) 390916.

Sunday 17th September: Field meeting, Warwickshire - Southam Quarry and Burton Dassett Hills: Leader

The Black Country Geological Society

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A. Cutler B.Sc., M.C.A.M.,
Dip.M., M.Inst.M.
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John Crossling, Keeper of Geology at Warwickshire Museum. Meet 10 a.m. at the Market Place, Warwick at the rear of the Warwickshire Museum. The meeting will start with a short tour of the museum and an introduction to Warwickshire geology. Southam quarry is a few miles east of Warwick and is in the Blue Lias (Lower Lias). Its interbedded limestones and clays are worked for cement.

Burton Dassett Hills are Middle Lias and include the Marlstone Rock bed, a ferruginous limestone which forms a distinctive outcrop due to its relevant hardness. It was quarried in the area for iron making.

John Crossling promises that both sites are VERY GOOD for COLLECTING FOSSILS:

Monday 2nd October: Lecture "The Age and Nature of Glaciation in North Wales: a modern Interpretation" by Dr. Ken Addison.

November - to be announced - field trip to the Wrekin area led by Dr. Alan Wright of Birmingham University.

Monday 4th December: Lecture on gold "Very precious metals in the British Isles" by R. Ixer of Birmingham University.

EDITORIAL:

It seems that Britain has finally woken up to the problems that modern society poses for our environment. Water and air pollution have hardly left the front pages of our newspapers since before Christmas and the hard-hitting TV documentaries are regularly seeking to expose yet another example of the desecration of our environment. This national publicity seems to have generated a resurgence in interest in our local environmental conservation issues. Whilst geologists may not always be considered to be the greenest of 'greens', considerable work has been done behind the scenes to make sure that geological conservation is included in any new initiatives or revitalised older ones. BCGS chairman Alan Cutler has been carrying the geological conservation

banner to great effect. Interviewed on local BBC Radio W.M. (the Tony Butler Show 15/2) and pictured in the local press, Alan has made sure that geology in the West Midlands will not be taking a back seat in local conservation issues.

Included in this month's newsletter is the article written by Alan for the Nature Conservancy Council's publication "Earth Science Conservation". It is entitled "Geological Conservation in the West Midlands". See also the illustrated article recently published in the Birmingham Post.

Field Meeting, Clee Hills. 13th November, 1988:

The Clee Hills form a familiar horizon, from many places in the western part of the Black Country, and are often traversed en-route to the Ludlow and Church Stretton areas.

On a clear bright November day, about 16 BCGS members and friends gathered to examine the geology of the Clee Hills area. The party was led by a local expert, Tim Pearce.

The first stop was the top of Titterstone Clee Hill at 533m A.O.D. The clear weather afforded excellent views of the surrounding area, so that the geological structure of the Clee Hills could be explained with visual aids, the Clee Hills being formed by synclinal outliers of Carboniferous strata resting on a large tract of Devonian strata.

After this general introduction, the party then examined the geological formation present (and exposed) in ascending geological order.

The first location inspected was a roadside outcrop of the Upper Devonian Farlow Series which consisted of weakly cemented, yellow, cross-bedded sandstones. The Lower Devonian Clee group and Ditton series that unconformably underlie the Farlow series, were not seen, as they are poorly exposed in the Clee Hills area.

The second location inspected was a roadside outcrop of the basal Lower Carboniferous (Tournaisian) Limestone strata. A basal quartz conglomerate was seen, overlain by grey, fossiliferous limestones and calcareous siltstones and several crinoid and brachiopod fragments were found.

After lunch, the party proceeded to inspect the large roadstone quarry being excavated in a thick dolerite sill (locally known as dowstone) that intrudes the Carboniferous strata on Titterstone Clee Hill. The road-

stone quarries provided excellent exposures of the dolerite sill and the overlying Carboniferous coal measures strata. The dolerite sill being transgressive within the coal measures strata, this being demonstrated by comparing the section of a disused quarry seen near the car park area with the section of the main quarry at the top of the hill. In the disused quarry, the top of the sill was in the basal coal measure sandstones (Cornbrook sandstone), whereas in the main quarry the sill was overlain by a sequence of dark mudstones with inferior coal seams. The main part of the Cornbrook Sandstone was not seen due to poor exposure. This sandstone unit is notable as the basal section is considered to be of Namurian (Millstone grit) age while the upper section is considered to be of Westphalian B (Middle Coal Measures) age. The coal measures mudstones and coals seen in the main quarry are considered to be of Westphalian C (Upper Coal Measures) age. The Titterstone Clee coalfield, therefore, does not clearly fit with the coal measures sequence seen in the adjacent Coalbrookdale and Wyre-forest coalfields, where coal swamp conditions generally did not prevail in Westphalian C times. The coal measures strata and the dolerite sill were inspected in detail in the main quarry. The coal measures strata contained three inferior coal seams in a grey mudstone sequence. Adjacent to the main quarry primitive "bell" pits were pointed out. These "bell" pits being of considerable age, as the main phase of coal mining on the Clee Hill is indicated to have taken place in the 13th century, with a further phase in the 19th century. A considerable thickness of columnar jointed even grained dolerite was visible in the main quarry, the sill being indicated to be up to 150m thick in places. The visit finished with the party driving to the eastern part of the upland plateau formed by the dolerite sill, where an extensive tract of land pock-marked with bell pits was viewed in the fading light, marking the end of an excellent day's geology.

Adrian Collings:

Treasurer's Report for 1988:

A brief summary follows:-

1988 was a time of consolidation for the Society's finances and we finished the year in a sound position. Subscriptions have been pegged at their present level for 1989 and 1990. A drive to encourage ex-members was successful, particularly in regaining three associate members previously lost. Several new members were also welcomed. The society is indebted to local companies who provide free photocopying for our newsletter. Both postal and meetings costs were lower than in 1987. An effort on sales of cards, books and journals was quite successful and the society made a £50 donation to the Murchison Symposium which several members will be attending. General reserve funds are reasonably healthy. Overall 1988 was a financially sound year for BCGS but we would like an increased membership not only for reasons of finance but particularly for support for programme events. Please encourage friends and acquaintances to join.

Judith Shilston,
January, 1989:

BCGS News:

A. Radio Geology:

In April, BBC Radio 4 VHF is to re-broadcast six 20-minute geology programmes for schools, devised by Anna Grayson and Hugh Saxby for BBC education. As reported in 'Geology Today' (v. 4, p. 62, 1988), these are Radiovision programmes supported by a series of 117 slides which may be purchased in advance from BBC School Publications, PO Box 234, Wetherby, W. Yorks LS23 7EU (enquiries and order forms from 01-991-8031, 24 hour service). The programmes, which are of interest to others besides school students, will go out in pairs between 24.30 and 01.10 hours on 26th April (igneous), 27th April (sedimentary) and 28th April (metamorphic).

B. Bristol Museum - "The Great Sea Dragons" exhibition:

This exhibition of Jurassic marine reptiles from Avon, Somerset, Dorset and Wiltshire includes a newly purchased £27,000 Lower Jurassic ichthyosaur eight metres long. Ichthyosaurs, plesiosaurs, pliosaurs and crocodiles were christened "Sea Dragons" by Thomas Hawkins of Glastonbury in his book of 1840, "The Great Sea Dragons".

The exhibition at City of Bristol Museum and Art Gallery, Queens Road, Bristol BS8 1RL, is free and open Mon-Sat. 10-5p.m. Tel:0272 299771.

C. Birmingham University Geology Museum:

Originating in the 1880 purchase of the Ketley collection of 1650 Silurian fossils the museums present collection is of international repute. The museum also holds several other famous collections including the Holcroft Silurian fossils from Dudley, the Lapworth graptolites and the Mclean mineral collection. It also has a wide range of rocks, minerals and fossils of all ages including some early vertebrate fossils - Agnathan fish and preserved foot-prints of reptiles and amphibians from Permo-Triassic times. The museum is open to the public on weekdays throughout the year except for statutory holidays, 9-5pm. Tel: (021) 414 6147.

D. Geological Field Trip to East Greenland:

Trekking holiday in the Angmagssalik region with its magnificent exposures of the Pre-Cambrian metamorphic and igneous complex, and present-day glacial geomorphology. Aurora holidays, run by two graduate geologists, one an igneous petrologist, the other a sedimentologist, offers these 16-day excursions from June to September, 1989 for £1,575. flying from Glasgow. Full details from Aurora Expeditions Ltd., 13 Horsley Wood Cottages, Horsley, Northumberland NE15 0NR. Tel:(0661) 853814 (24 hours).

E. Mr. George Price, group co-ordinator of Racecourse colliery No. 2 pit has written to the society with some clarification following our report of Nigel Chapman's lecture in December.

The F.O.B.C.M. Mining group has 25 members whose major ongoing project is the Brook Shaft workings at Racecourse colliery No. 2 pit, installing a more powerful winding engine which complies with present-day safety requirements.

At Racecourse colliery No. 1 pit, the head-gear was not found, the headframe being reconstructed in new timber to an old pattern by a firm of builders. The underground mining display is a £1,000,000 artificial mine complex with entry by sloping drifts being constructed by contractors not by F.O.B.C.M. mining group, who are, however, providing specialist help.

F. Evening class:

Introduction to geology. 12 meetings. Wed. 7.30 p.m. from 12th April at College of Adult Education, Old Hall St., Wolverhampton. Lecturer Susan Childs.

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From the papers (and continued after pages 5 and 6)

Back to nature is on the cards

Three more natural areas in Birmingham could soon be declared official nature reserves.

The Nature Conservancy Council is being asked to consider the sites which are rich in plant and animal life.

The three areas are the Brownich Wood in Bartley Green, the wetland Merecroft Pool in Kings Norton which is rich in aquatic plants and the

Rubery Cutting and Leach Green Quarries in Rubery. The city council's leisure services committee is being asked to approve the move at its meeting on Thursday.

The Plantsbrook Reservoir in Walmley and Moseley Bog have already been designated as nature reserves.

The Hill Hook wetland area off Hill Hook Road, Sutton Coldfield is also being considered.

The Black Country Geological Society

1988 Annual Report

Membership

It is pleasing to report that the membership total for 1988 has shown a considerable gain over 1987. Increases have been recorded in all categories except Family. The year end membership profile comprised 40 (34) individual members, 5 (6) pairs of family members, 4 (1) Juniors/Student and 6 (2) Associates, totalling 60 (50). Figures in parenthesis denote 1987 numbers.

The increase is in part due to new members but also the return of a number of lapsed members following a concerted campaign.

Annual Programme

For most of 1988, the society was without the services of our elected Field Secretary, but Paul Shilston and Andrew Rigby have looked after this role in addition to their normal duties, since the last AGM.

13 meetings were held during 1988; 5 lectures, 2 excursions and six field meetings. Particularly noteworthy were the two lectures by Dr Russel Coope from Birmingham University and Tony Waltham from Trent Polytechnic. Four meetings were given by society members which was also most pleasing. A new departure in 1988 was the holding of the AGM, away from home, at the National Museum of Wales during the exhibition of Chinese Dinosaurs.

Conservation

At the end of the year we received notification that Beacon Hill Quarry, Sedgley was to be denotified as a SSSI.

Work has not yet commenced on scheduling second-tier sites in Sandwell for the SINC lists. However, details of five sites in neighbouring South Staffordshire have been submitted to Don Steward at Stoke Museum who is coordinating a similar project for the Staffordshire Structure Plan.

The society was consulted over a planning application from the Dudley Canal Trust which would adversely affect the access to the well known Castle Mill Basin on Castle Hill. The outcome will be reported in due course.

Other Activities in Brief

The society took part in the second Dudley Museum Open Day in October and has been reported in the Newsletter.

A description of the geology of Uffmoor Wood near HalesOwen has been supplied to the Woodland Trust and an edited version has appeared in an information leaflet.



The society has received much publicity and prominence in three publications in 1988. An article by Paul Shilston appeared in the May/June edition of the magazine Geology Today (see Newsletter No.72, December). The society was mentioned in connection with land conservation in the NCC publication Urban Wildlife News. The society received additional prominence in the NCC publication Earth Science Conservation (December 1988) in an article on Geological Conservation in West Midlands County co- authored by Dr John Box of the NCC and Alan Cutler.

In October Colin Reid, Alan Cutler and the Wrens Nest Wardens, Nick Williams and Lee Southall helped guide over 100 children from the Worcester Watch Club (junior arm of the County Trust) around Dudley Museum and Wrens Nest Reserve.

In Conclusion

It is hoped that the upturn in membership will be sustained and has now halted the decline experienced over the last three years which has been the cause of some concern.

A lively programme before us, coupled with a continuation in the resurgence of interest in conservation issues allows us to conclude that the society is as buoyant and strong as ever. Our thanks to the officers and members of the society who make it possible.

BOOKING FORM — WEEKEND FIELD MEETING

FIELD WEEKEND MAY 12/13/14 SLAPTON LEY FIELD STUDIES CENTRE, DEVON
LEADER DR. KEITH CHELL

Accommodation and food will cost £30 from Friday evening to Sunday breakfast. There may be an extra charge for transport.

Please book places on the field weekend.

I enclose a deposit of £10.

Signed: Phone number:

Address:

Please return to S. Gibson, Walford, New Road, Ludlow SY8 2LS

Geologists chip away at problem of endangered rock specimens

Fossil friends fight battle for conservation

A Midland society is fighting a new nature conservation battle, to protect the region's endangered rocks.

The Black Country Geological Society argues that fossilised fish and carboniferous conifers in the West Midlands should be protected as much as their living counterparts.

But the county's pressing waste disposal needs and redevelopment plans mean its lesser-known sites are under threat.

One way forward is to set up joint nature reserves for geological outcrops and living flora and fauna, Mr Alan Cutler, chairman of the society, said last night.

Joint interest
"Where there is a joint interest a site's future is more likely to be safeguarded," he said.

"I'm not saying that sites of a purely geological interest stand no chance but joint sites will command much more support."

The 60-strong society is identifying and listing about 100 sites of value.

BY HELEN EVANS

of geological importance in the West Midlands which it will pass on to the Nature Conservancy Council.

The council has the power to designate these as sites of importance to nature conservation. Although this gives the land no legal protection, planning authorities will take the description into account when making planning and development decisions.

A year's work by the society has led to the recognition of 25 sites in Dudley, the region's most varied geological area.

It will cover Sandwell and Walsall in the next stages of its three-year programme.

Mr Cutler estimated that up to 75 per cent of the proposed sites which can vary from a quarry to a single outcrop of rock in a stream, have some wildlife value.

Successful joint reserves of geological and biological importance have already been set up by local and national government bodies at Wren's Nest, Dudley, and Doulton's Claypit between Dudley and Stourbridge.

He urged councils to use powers to set up local nature reserves as a way of protecting sites.

Rarely used

This is a power they have had since 1949 but for whatever reason there haven't been many reserves created," he said.

"I think this is an avenue which could be pursued by the district councils, and clearly what they would want to see is a considerable all-round nature conservation value."

Dudley Council's nature conservation consultative group provided a forum for the geologists to meet wildlife conservationists from organisations like the Urban Wildlife Group and the Worcestershire and Staffordshire nature conservancy trusts, he said.



Mr Alan Cutler, chairman of the Black Country Geological Society, examines rock at Berry Hill Quarry, Panenett. He hopes to preserve some fossilised sites.