



Newsletter September 2025

Sixty Sixth session

President	Chris Berry BerryCM@cardiff.ac.uk	Vice-President	Cindy Howells membership@swga.org.uk
Secretary	Elen Statham secretary@swga.org.uk	Past President	John Nudds john.nudds@manchester.ac.uk
Membership Secretary	Cindy Howells membership@swga.org.uk	Programme Secretary	Vacant
Treasurer	Hazel Trenbirth hazel.trenbirth@btinternet.com	Meeting Co-ordinator	Nick Pollock programme@swga.org.uk
Editor and Webmaster	Rhian Kendall webmaster@swga.org.uk	Publicity	Vacant
Newsletter	Stephen Howe newsletter@swga.org.uk	Other members of the committee: Lesley Cherns, Sara Davies, Kath Ficken, Geraint Owen, Kevin Privett, Chris Lee (co-opted)	

Welcome to the Autumn Newsletter. In this edition you will find the details of the remaining summer field meeting, the Winter Programme, a report from the Merthyr Science Festival, updates from SEWRIGS and the Fforest Fawr Geopark, Holiday Geo-snaps, plus a number of other items. As usual I thank all those who have provided articles (without too much arm-twisting) without which this edition would have been extremely thin! It would be nice to see articles or comments from amongst the rest of the membership so please consider writing something for future editions, no matter how small and about anything that you feel might be of interest.

I am hoping to get the next Newsletter distributed before Christmas so would be grateful to receive items at any time up to 31st November for inclusion in that edition. I would be grateful if you could submit any text as a Word file and any images separately as jpeg files. Please don't send a ready formatted article with inset images as the formatting and pictures often go awry when transferred to the Newsletter format. In the meantime, I hope that you find something of interest and look forward to rescuing a host of items for the next issue to make it a bumper Christmas edition!

Stephen Howe



Message from the President

I was amazed when I stuck my head over the parapet above Penarth beach around midday on the 23rd of August and saw a large crowd of adults and children searching for fossils on the beach. I was doubly surprised to look round the corner and see John Nudds leading an even bigger crowd on a mini field trip ending at the 'dinosaur footprints'. The *Family Geology Day* is a fantastic event, and not only brought out crowds from Penarth and much further afield, but brought together our members, and some of their families, in a most convivial way. The only downside was the exhaustion from continually talking. The tent was a godsend on the hot beach. Anyhow, the community and educational value of the three hours (plus preparation!) was immense, and it was lovely to see members use their expertise in geology, mineralogy and palaeontology to answer so many questions, including the occasional tough one.

I wonder where else you could pull this off? My first experience of the geology of the Welsh coast was as a child visiting former neighbours who had moved to Porthcawl. Here, my dad and I quickly started to recognise the same types of fossils, crinoids and brachiopods, we had found exploring the rocks around our other regular holiday destination, Ravenstonedale in Cumbria. Now of course I would understand the stratigraphic and palaeogeographic reasons for that..... But it does make me think where else is ripe for SWGA Family Geology Days: Gower, Tenby.....?

Many thanks to everyone for their hard work in organising and pulling off such a brilliant event, and also the Summer Field Trip Programme. We have some more fieldtrips in the bag for next summer, and a few more to organise.

We also have some great talks lined up for the cooler months in the meantime, covering palaeontology, rocks and minerals in an equally informative way. I am very much looking forward to seeing you here in Cardiff, or in our super venue in Swansea.

Christopher Berry



Remaining Summer Programme 2025

Please note: Members should read the Group's Field Work Safety Policy before attending excursions to make themselves aware of the general risks likely to be encountered on excursions as well as the site-specific Risk Assessment that is sent out prior to each excursion.

October 18th Naunton (Huntsman's) Quarry, Gloucestershire Leader: Mike Milward

This is a joint meeting with the Cheltenham Mineral and Geology Society that was postponed from July 26th. Meet at 10.00am at Naunton Quarry (SP 124 254). This is a working quarry so full PPE is required. **This has to be orange** hi-vis top and trousers, hard hat and protective footwear (preferably composite rather than steel).

The quarry, which traded for decades as Huntsman's Quarry, is working a succession of formations of the Middle Jurassic Great Oolite Group, as well as the underlying Clypeus Grit of the Inferior Oolite, containing abundant good quality specimens of the echinoid *Clypeus ploti*. Above the Lower Fuller's Earth, the formations include the coral-rich Sharp's Hill Formation and the Stonesfield Slate beds notable for past discoveries of vertebrate remains. Our guides will describe all of this, and explain the commercial dimension of the operation.

The address is Naunton Quarry, Buckle St, Naunton, Gloucestershire, GL54 3BA, but the postcode is not a reliable way to find the quarry as it will take you into nearby Naunton village. It is best to use the grid ref, which is SP124 254. Coming east from Cheltenham/Gloucester, leave the A40 at Andoversford and onto the A436 (signposted Bourton on the Water). After approximately 4 miles turn left onto the B4068 (signposted Lower Swell and Stow-on-the-Wold). After approximately 4.5 miles, and after passing several signposts to Naunton, turn left at a crossroads with a brown sign to "Cotswold Farm Park 2.5 miles" and underneath it a white sign to "The Quarry" 1.5 miles. Ignore any earlier signs to Cotswold Farm Park. This is Buckle Street and you will find the quarry entrance on the right after 1.5 miles. The reception building is on the left as you drive in, park in the marked spaces.

All those interested in attending who have not already contacted Mike directly **must do so** (m.milward1@yahoo.co.uk) to let him know, as there is a limit on numbers and there may be late alterations to the arrangements.



Subscriptions 2025-2026

Subscriptions for the new session became due on 1st September. The rates are once again the same as last year; Ordinary £10, Optional Concessionary £5 and Family £10 plus £5 for each additional family member. Many of you pay by Standing Order so won't need to worry about this, but if not send a cheque to the Membership Secretary (Cindy Howells) at the Department of Natural Sciences, National Museum of Wales, Cathays Park, Cardiff, CF10 3NP or ask her for our bank details so that you can do it via BACS.

Please note that we have changed bank account since last year so if you haven't changed your standing order since Cindy's email then your payment will not go through. If this is the case then please contact Cindy who will forward you the account details and instructions on how to set up a new standing order.



Winter Programme 2025-2026

The Winter programme is outlined below. Meetings in Cardiff will take place in our usual rooms at the University and those in Swansea at the Trallwn Community Hub, Bethel Rd, Llansamlet, Swansea SA7 9QP. All of the talks will be hybrid events with Zoom available for those who are unable to attend. The meetings start at 10.00am with refreshments served from about 10.15am.

Please note that due to the availability of the talk by Richard Bevins the Presidential Address has been moved to the October meeting.

October: Saturday 11th (Swansea)

Chris Berry: The Presidential Address: *Three Summers on the Arctic Riviera: The search for Devonian plants and amphibians in North East Greenland*

November: Saturday 8th (Cardiff)

Cat Daniels: *Keeping hazardous fluids safely locked up: Using geology to dispose of waste products*

December: Saturday 6th (Swansea)

David Buchs: *How did the formation of the Isthmus of Panama help shape the modern Earth?*

2026

January: Saturday 10th (Cardiff) (tbc)

Holiday Geology: Co-ordinator John Nudds

February: Saturday 7th (Swansea) (tbc)

Tim Astrop: *Brymbo Fossil Forest*:

March: Saturday 7th/14th (tbc) (Cardiff) (tbc)



Events

Fforest Fawr Geopark 20th Anniversary:

The Fforest Fawr Unesco Global Geopark will be celebrating its 20th Anniversary with two weekends of activities and walks both of which the Group will be participating in. The first takes place at the National Park Visitor Centre (Mountain Centre) at Libanus over the weekend of 27th/28th September and the second at Craig-y-nos Country Park, over the weekend of 11th/12th October. At both you can join geologist Alan Bowring, the Fforest Fawr Geopark's Development Officer, alongside local experts, for a series of guided walks uncovering the rich history, wildlife and of course – geology, of this incredible landscape.

Swansea Science Festival

The Group will also be participating by having a stand at the Swansea Science Festival over the weekend of 25th/26th October.

GA Annual Conference

This year's GA conference will take place at the University of Keele from 3-5th October. As usual there is an ice-breaker on the Friday night (3rd) followed by a full day of talks on the Saturday (4th) that will highlight the geology of the Staffordshire area followed by a series of field trips on the Sunday (5th). Full details and booking instructions can be found on the GA's web site.

GA Festival of Geology

This year's Festival of Geology will be held in the rooms of the Geological Society at Burlington House, London on Saturday 1st November. The Group has decided not to have a stand at the event this year but even without our presence it is an event well worth attending. The Festival will follow the usual form of displays, geological sales outlets and activities on the Saturday (1st) including three talks: *The Secret Lives of Dinosaurs* by Dean Lomax and Bob Nichols; *The Early Evolution of Animal Life* by Frankie Dunn and *How to Build a Jurassic Coastline* by Saskia Elliot. The following day, Sunday 2nd, there are three local field trips on offer. Full details can be found on the GA's web site.

Mendip Rocks 2025

This year's *Mendip Rocks* festival runs from 1st to 25th October. There are a host of varying events including quarry tours, geological walks as well as a Somerset Earth Science Centre Museum open day. The full programme can be found on the Earth Science Centre web site. www.earthsciencecentre.org.uk/mendip-rocks.



Merthyr Science Festival 2025

As in 2024 we had a request from David Ward of the Geologists' Association for SWGA members to help out with his stand at this year's Merthyr Science Festival. Last year, Alan Bowring and Mel Watkins rose to the challenge and commented that though they were very busy, it was very worthwhile. So, this year, SWGA decided to run a display alongside David's. Lynda Garfield and Dave Wellings brought

along their *Minerals in your Smartphone* display, Huw Williams and I ran a display on Welsh rocks, and Alan Bowring brought information about the Forest Fawr Geopark. And yes, we were occupied with (and challenged by) children's questions from 10am to 4.00pm when the doors closed. The parents also had questions as did the grandparents and ex-miners. I had conversations on the state of the education system, dinosaurs, volcanoes, climate change and how Nana used to have a coal fire! None of the young children could recognize our lump of coal, but three volunteered with confidence that it was obsidian and was a special substance that you needed to open the doors of hell or something on Minecraft, and that you can make it by quenching lava with water. I must say I was simultaneously disappointed and impressed.

Looking around at the other stands, it was clear how much effort had gone into making displays and games entertaining enough to divert attention from smartphones. Techniquet, the British Society for Gene Therapy, and the Royal Society for Chemistry were some of the other exhibitors. David Ward told me that he does 10 events like these a year, in many parts of the country, and has a garage full of samples. He is dedicated to raising the profile of geology with the young and it seems to work. The interest in our stand was generated by the nature of the samples, from rare earths to dinosaur bones. I'm sorry I missed the shot of Alan Bowring in Messianic pose, explaining the length of a certain dinosaur to a rapt audience.

It was very apposite that we had an "exploded" smartphone on our stand. Amongst the samples that Lynda and Dave brought was a boxful of quartz crystals (used for the silicon chip of the phone), known of course as "Merthyr Diamonds". Dave had also brought a tray of impressive calcite crystals. Children were allowed to choose their favourite and be given them to take away. When offered to one child, he looked at us with surprise and said, "Are they free?" He was delighted to learn that they were.

I hope we have enough energy and enthusiasm to carry on attending events like these, and if anyone has samples that they want to part with, new ideas for displays, or wants to help out in any other way, then please get in touch. I am off to order some obsidian.

Elen Statham



SEWRIGS

The RIGS group returned to Quarella Quarry, Wildmill, in Bridgend in July for another productive work day undertaking vegetation clearance with the extensive and spreading growth of highly invasive Himalayan Balsam being a particular challenge. Further good progress was made in excavating and exposing the important unconformity between the Cotham Beds and underlying Quarella Sandstone. We now consider that excavations on this part of the site is now complete and no further work will be undertaken until next year when we will concentrate on further vegetation removal off the exposed faces.

We held a general meeting at Llanfoist village hall, near Abergavenny, on the 30th August when, amongst other important matters, we discussed progress on existing projects and where our activities should be focused over the next few months. These will entail further visits to Silurian sites in the Usk Inlier, both new and existing, particularly in the vicinity of Llandegfedd Reservoir. In the Cefn Onn area of north Cardiff there are three possible projects that involving two potential new RIGS sites, one in the Llanishen Conglomerate Formation of the Old Red Sandstone and another in the Upper Old Red

Sandstone. Discussions are underway with the local council rangers about scrub and tree clearance that can hopefully be undertaken through the winter. We are also looking at vegetation removal in Cefn Onn Quarry RIGS that exposes the Carboniferous Limestone. We will also be revisiting Candleston Quarry RIGS site to complete the clearance work that was begun in May.

A possible new project is at the site of the Killay Brickworks quarry, in Swansea, where an important Lower Coal Measures exposure is sadly overgrown. Here we are in discussion with the local conservation group who manage the site. All these projects offer the potential for a busy programme ahead and an exciting time for new members to join us!



Clydach Halt Limeworks Quarry ©SRHowe



Old lime kiln, Clydach Halt Limeworks ©SRHowe

In the afternoon of the Llanfoist meeting Alan Bowring led us on a visit to the nearby Clydach Halt Limeworks RIGS site, in the Clydach Valley, followed by a quick visit to the neighbouring Llanelly Hill Quarry. This area displays a wide stratigraphical range from the Upper Old Red Sandstone into the Carboniferous Avon Group, through the Arundian, where the dominant Clydach Valley and Llanelly Beds are well exposed up to the Holkerian Dowlais Limestone at the top of the quarry. The distinct features of this succession are the varying in cycles, which due to climate change, created marginal marine limestones in brackish and peritidal environments, through to terrestrial land surfaces with distinct clay paleosols and calcretes. It was well worth braving the damp conditions which didn't dampen our enthusiasm for visiting this geological gem.

Nigel McGaw



News from the Fforest Fawr Geopark

Fforest Fawr Geopark was conceived of in the early 2000s by the then Brecon Beacons National Park Authority. An application for membership to the European Geoparks Network in its name and that of the British Geological Survey and Cardiff University was successful in October 2005. Many other organisations from different sectors – public, private, academic, charity - were involved as founder organisations whilst others have come on board since. Along with several others in the UK and elsewhere across Europe, the Geopark formally became part of the UNESCO family in 2015, making it a UGGp or UNESCO Global Geopark. Every four years the Geopark undergoes an assessment to check that it is meeting its expectations. If all is well it is given a 'green card' and we're pleased to be able to report successive 'green cards' every four years since designation . . . amounting to a clean bill of health, but we know there is always more to do!

One of the biggest challenges for the future here at Fforest Fawr UGGp, as experienced by others elsewhere, will be finding the resources as budgets continue to be stretched. We might hope that since the entire enterprise is a collaborative one, we'll get through it by each partner contributing what they can in their own way, be that funding, expertise, publicity or whatever. Fingers crossed for the next twenty!

Alan Bowring



YN DATHLU 20 MLYNEDD
CELEBRATING 20 YEARS

GŴYL GEOPARC
FFOREST FAWR
GEOPARK FESTIVAL

27 - 28 MEDI 2025 CANOLFAN YMWELWYR	11 - 12 HYDREF 2025 PARC GWLEDIG CRAIG-Y-NOS
27 - 28 SEPTEMBER 2025 NATIONAL PARK VISITOR CENTRE	11 - 12 OCTOBER 2025 CRAIG-Y-NOS COUNTRY PARK

 Bannau
Brycheiniog

Holiday Geo-snaps

In Yosemite National Park in California, the main Yosemite Valley is for many the central attraction with the well-known El Capitan and Half Dome (Fig 1) being the main crowd pullers. But much quieter, and in some ways more dramatic, is the Tioga Road in the north of the Park, leading to Tuolumne Meadows and the eastern entrance to the Park. The whole of Yosemite is part of the huge Sierra Nevada Batholith, intruded during the Cretaceous Period when the Farallon Plate subducted beneath the North American Plate. Subsequent erosion and exhumation have brought the granite (strictly a quartz monzonite) to the surface. Driving along the Tioga Road, you are essentially driving across the exhumed top of the batholith, which has since been carved by recent glaciers into dramatic glacial features, such as the huge roche moutonnée of Lembert Dome (Fig 2). The exposed granite shows wonderful examples of exfoliation, where it peels off in layers along unloading joints parallel to the batholith roof (Fig 3). I definitely recommend a visit!



Fig 1.



Fig 2.



Fig 3.

Fig 1: Half Dome, Yosemite National Park, from Glacier Point - a dramatic granite pluton.

Fig 2: Lembert Dome, Yosemite National Park - a huge roche moutonnée of granite.

Fig 3: Exfoliating granite, Tioga Road, Yosemite National Park

John Nudds



News from the Museum

It is with great pleasure that I can bring you the news that we have, not quite a new dinosaur in Wales, but a new name for an old one. This is the dinosaur jaw section previously called *Zanclodon*, which was found at Stormy Down near Bridgend in 1897. This natural mould of a lower jaw with teeth, from the Triassic, has attracted much interest for over a century, but being a single bone section it has been problematic to establish definitive identification. Suggestions have ranged from *Megalosaurus* to Crocodile!

The National Museum has had many collaborative projects with Bristol University and quite a few research papers have resulted. Last year I spent some time talking about Welsh dinosaurs with one of the Bristol students, Owain Evans, and suggested that he might be interested in doing something with the *Zanclodon* jaw section.

The original specimen consists of two specimens, part and counterpart, which are both hollow moulds, with none of the original fossil left. Using modern techniques, he was able to scan both halves and recreate the original shape of the jaw to look at the detail in a way that hasn't been possible before. By comparing this to other Triassic dinosaurs, we have been able to establish it as a basal neotheropod, which is different to any other known dinosaur. This means that we can definitively state that it is a new genus and species - and give it the name *Newtonsaurus cambrensis*. *Newtonsaurus* was chosen in honour of E.T. Newton of the BGS who was the first to report the specimen.

The paper is open access and can be read through the following link :

[https://authors.elsevier.com/sd/article/S0016-7878\(25\)00051-3](https://authors.elsevier.com/sd/article/S0016-7878(25)00051-3)

The specimen is on display in the *Evolution of Wales* gallery in the National Museum and the label for it will be updated at some point in the future.

Cindy Howells



- Most of our lectures are recorded and uploaded to our website (www.swga.org.uk) for a few months.
- We also have a YouTube channel as well as maintaining a Facebook presence (<https://www.facebook.com/groups/179899022064977>). With Facebook, anyone can join in and the more that do, the better it is!
- **Earth Heritage Magazine:** This is now only available as an electronic copy, which can be found at: http://www.earthheritage.org.uk/wp/wp-content/uploads/EH-53_final.pdf



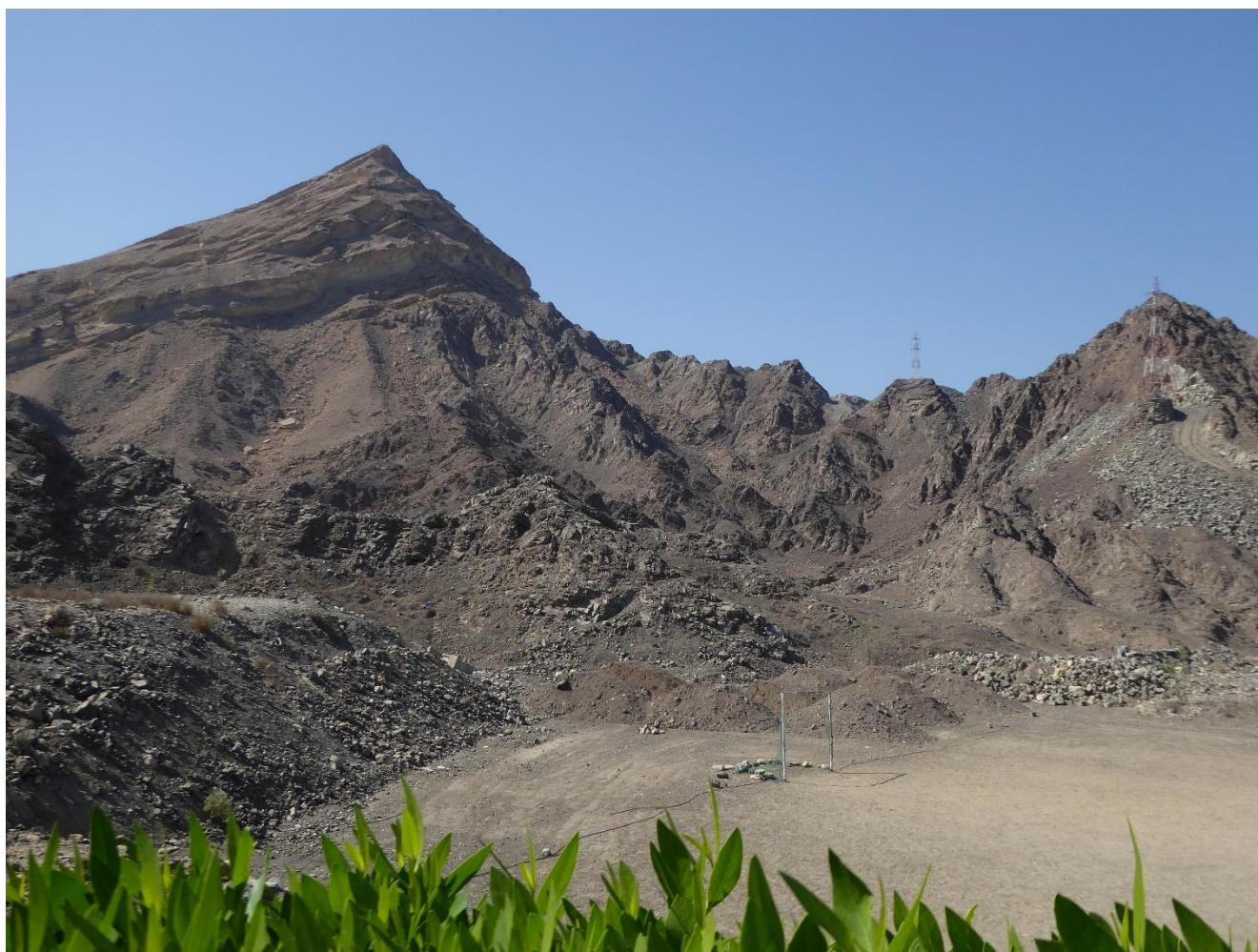
Contacts for other local geological organisations

- **Welsh Stone Forum (Fforwm Cerrig Cymru):** Contact: www.museumwales.ac.uk/en/welshstoneforum

- **Open University Geological Society (Severnside Branch):** Contact: Andy Mitchell (ougs.org/severnside)
- **South East Wales RIGS Group:** <http://sewrigs.wordpress.com/>
- **West Wales Geology Society:** www.westwalesgeolsoc.org.uk
-



Data Protection: The Group keeps records of names, contact details, membership type, and Gift Aid declarations. These are used only within the Group for maintaining the membership list, mailings, Gift Aid reclamations, general administration, and matters relating to the carrying out of the Group's activities (may also include non-members and historical records). We will not share / sell your information with any other organisation and will destroy your records when you leave.



A picture from outside of Wales this time to finish the Newsletter. This is from Al Butsan, just west of Muscat, Oman, and shows part of the Samail Ophiolite (oceanic crust and mantle) overlain by Tertiary shallow water limestones.