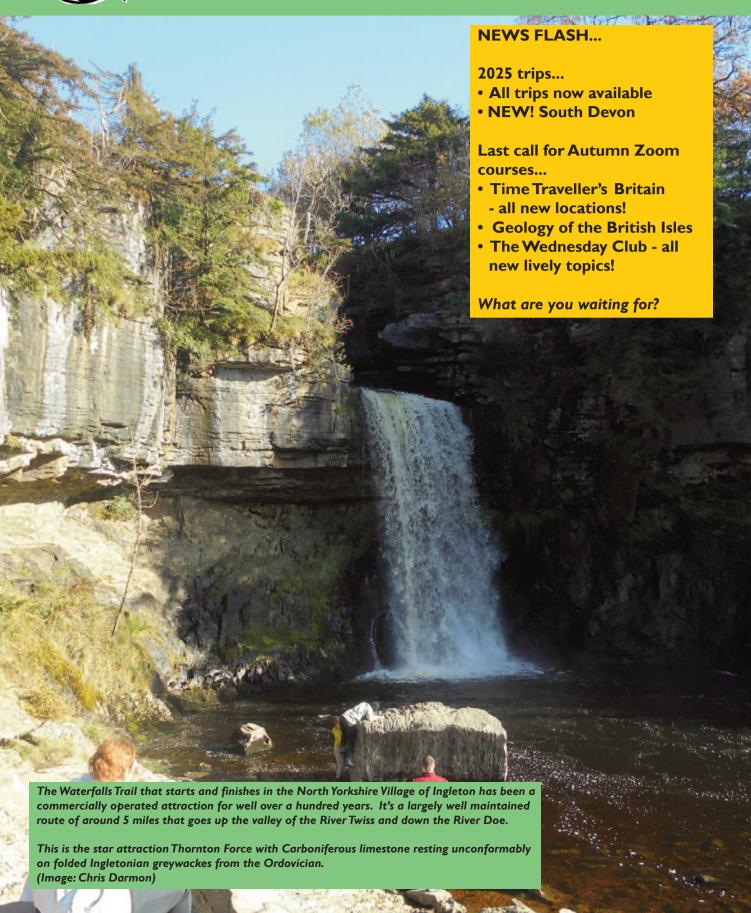


# Down to Earth exera

Issue 143 November 2024



#### From the Editorial team...

As we come to the end of another eventful and memorable field year, it's also an opportunity to look back at the highs and the lows. First, and most importantly, we've been to some amazing places around the UK and also in Norway. We've been in the company of pretty exceptional people - yes that's you, our 'Down to Earth' family. Finally, we've also experienced some great weather, most recently in the Yorkshire Dales in late October. We won't forget the views of Ingleborough illuminated by low level brilliant sunshine for a long time!

On the down side we've seen at first hand, the state of our geological heritage in England, Wales and Scotland. Here, much like the weather, it's an incredibly mixed bag. We've seen geology explained brilliantly to the general public in places like the Northwest Highlands and on Loch Lomond. We've enjoyed great boat trips on Loch Lomond and Loch Katrine with a superb commentary about the geology of the Highland Boundary fault on Loch Lomond.

Contrast that with the almost complete lack of geological explanation of Ben Nevis and the Pass of Glencoe - which are arguably some of the finest 'in your face' geology that we have. In much the same way, there's little to explain the geology of the parts of Snowdonia that we had the pleasure to see, Surely Beddgelert deserves something better. The view from the Welsh Highland railway is superb, but without explanation it says nothing to the general public.

As with many things in our country; it's crying out for somebody to do the job and somebody to pay for it to be done. In the big scheme of things these require investment of pennies, but the payback in terms of the joy that these would bring for so many, is rich. There's a lot to be done across the country and it all begins at the local level with people caring about their geology and landscape.

Chris Darmon & Colin Schofield The Down to Earth Editorial Team

Your last chance to join us on a Zoom course this Autumn - see page 11!



# Major Ichthyosaur find in the countryside of Leicestershire...

In some parts of the UK it's quite normal to halt work on a construction site, whilst archaeologists carry out work on a Roman site, such as those found in the City of York, but stopping to unearth an Ichthyosaur - that's something else!

Back in 2021 palaeontologists discovered what is now known to be the largest Ichthyosaur yet on the shores of Rutland Water. The latest find, which is part of an Ichthyosaur's skull, was discovered during the construction of the Melton Mowbray bypass, not far from Rutland Water and in similar Cretaceous and Jurassic strata.

The 7 km long road is being constructed for Leicestershire County Council by Galliford and they have engaged a team of archaeologists who have investigated some 11 sites along the route. Most of the interesting finds relate to aspects of human history from Mesolithic and Roman times onwards, but the Ichthyosaur skull at around 100 Ma is certainly the oldest.

Ichthyosaurs were particularly long lived and examples are known from both the Jurassic and Cretaceous across the UK. They could grow up to 25 m long and in many environments were the marine apex predator species.

Whilst this is similar to the Rutland Water find of 2021, it's unlikely to be the same species and so far no more has been found of the current example.

# Small group tours to areas of superb geological interest Santorini, Greece May 8th to 15th The island giving rise to the legend of Atlantis Sicily & the Aeolians June 5th to 12th Includes visits to Etna, Vulcano & Stromboli Iceland ~ the North Sept 1st to 8th Myvatn, Krafla and the Askja Caldera La Palma ~ Nov 24th to Dec 2nd Including site of the recent major eruption www.volcanicexperiences.co.uk tel 01527-832578 or 07790009098 email volcanicexperiences@aol.com



Part of the skull of a 100 million year old Ichthyosaur. (Image: Archaeological Research Services)

Whilst there are lots of upsides to the discovery of this and the associated archaeological finds, it does all come at a significant cost to the County Council, with an extra £11.6 million being added to the project budget.

# Meanwhile, news about the Rutland Water Ichthyosaur...

Just before news of the Ichthyosaur skull emerged, came this announcement about the Rutland Water Ichthyosaur. Welland Procurement issued this tender notice on 21 August 2024:

"Rutland County Council (RCC), with a grant received from the Levelling Up Fund, is seeking tender submissions from providers with proven experience in fossil conservation and 3D digitisation for the comprehensive de-jacketing, conservation, preparation, mounting and associated digitisation of the Ichthyosaur fossil. This process involves detailed handling of delicate fossil material currently encased in plaster-of-paris field jackets.

The successful provider will be able to complete the work by the end of March 2026. This tender document outlines the scope, specifications and deliverables expected from prospective Contractors. Further information on the requirement and relevant performance standards are available within the Specification.

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> Editor: Chris Darmon Assistant Editor: Colin Schofield

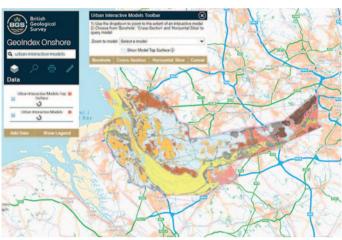
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Material is © Geo Supplies Ltd. 2024 You are welcome to share DtoE extra with others in your group and reproduce items contained here, provided you acknowledge the source. The anticipated contract commencement date is 21 Oct 2024. The Council proposes to enter one contract commencing on 21 Oct 2024 with the preferred supplier, ending on 30 September 2026.

The budget for this contract is £800,000 in its entirety (exclusive of VAT). Please Note: The Council reserves the right to reject any submissions that are over budget without further evaluation."

This provides an interesting insight into how something like this is advertised. If you know who won the tender, we'd be pleased to hear from you - Ed.

# What lies beneath Liverpool (and Warrington)? - BGS launches new 3-D interactive tool...





#### This comes from the BGS website:

"The ground beneath our cities and towns is becoming increasingly important in a number of sectors. This is not only due to pressures from housing, transport, and utility infrastructure, but also from optimising the use of natural resources such as groundwater and heat.

**BGS GeoIndex Onshore**, which was produced and launched in 2021, is free for the public to use. It already includes conceptual models of London and the Thames valley, Cardiff, and the greater Glasgow region; now, a 3D interactive tool featuring Liverpool and Warrington has also been made available.

The tool provides a 3D characterisation of the rocks and deposits beneath the area that make up the upper tens to hundreds of metres of the below ground. This data provides a vital understanding of where certain geology is and can assist different sectors in their planning within urban areas. For example, it gives a heads-up to local authorities and engineering consultancies of where they should consider the management of groundwater, and identifies potential geological resources, such as geothermal energy, when it comes to the planning and development of the area."

You can find out more at: https://www.bgs.ac.uk/news/what-lies-beneath-liverpool/

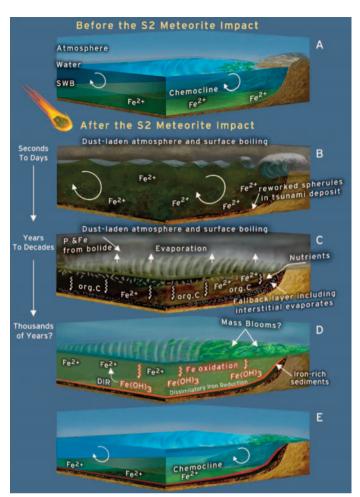
# What happened when a meteorite the size of four Mount Everests hit the Earth 3.26 Ga?

In recent years we've been gathering more and more information about the early years of our planet, that first 1 billon years or so when we were being bombarded with huge blocks of meteorite material. Around the world, teams of scientists have been examining the evidence and coming forward with new and surprising scenarios.

A team from the *Department of Earth and Planetary Sciences at Harvard University* led by *Nadja Drabon* has been investigating the Baberton Greenstone belt of South Africa. In particular they have been looking at the so called "S2" meteorite impact that dates to 3.26 Ga. The starting point for the study which has been published in the *Proceedings of the National Academy of Sciences*, was careful collection of rock samples centimeters apart and analysing the sedimentology, geochemistry, and carbon isotope compositions they leave behind.



Drabon with students David Madrigal Trejo and Öykü Mete during fieldwork in South Africa. (Image: Nadja Drobon)



Graphic depiction of the S2 impact and its immediate after effects. (Image: Courtesy of Nadja Drabon)

Drabon's team paints the most compelling picture to date of what happened the day a meteorite the size of four Mount Everests paid Earth a visit. "Picture yourself standing off the coast of Cape Cod, in a shelf of shallow water. It's a low-energy environment, without strong currents. Then all of a sudden, you have a giant tsunami sweeping by and ripping up the sea floor," said Drabon.

The S2 meteorite, estimated to have been up to 200 times larger than the one that killed the dinosaurs, triggered a tsunami that mixed up the ocean and flushed debris from the land into coastal areas. Heat from the impact caused the topmost layer of the ocean to boil off, while also heating the atmosphere. A thick cloud of dust blanketed everything, shutting down any photosynthetic activity.

But bacteria are hardy, and following impact, according to the team's analysis, bacterial life bounced back quickly. With this came sharp spikes in populations of unicellular organisms that feed off the elements phosphorus and iron. Iron was likely stirred up from the deep ocean into shallow waters by the aforementioned tsunami, and phosphorus was delivered to Earth by the meteorite itself and from an increase of weathering and erosion on land.

Drabon's analysis shows that iron-metabolizing bacteria would thus have flourished in the immediate aftermath of the impact. This shift toward iron-favouring bacteria, however short-lived, is a key puzzle piece depicting early life on Earth. According to Drabon's study, meteorite impact events — while reputed to kill everything in their wake (including, 66 million years ago, the dinosaurs) — carried a

silver lining for life.

"We think of impact events as being disastrous for life," Drabon said. "But what this study is highlighting is that these impacts would have had benefits to life, especially early on, and these impacts might have actually allowed life to flourish."

These results are drawn from the backbreaking work of geologists like Drabon and her students, hiking into mountain passes that contain the sedimentary evidence of early sprays of rock that embedded themselves into the ground and became preserved over time in the Earth's crust. Chemical signatures hidden in thin layers of rock help Drabon and her students piece together evidence of tsunamis and other cataclysmic events.

The Barberton Greenstone Belt in South Africa, where Drabon concentrates most of her current work, contains evidence of at least eight impact events including the S2. She and her team plan to study the area further to probe even deeper into Earth and its meteorite enabled history.

Material for this article comes from The Harvard Gazette, to whom we are indebted.

# Lithium mining goes from boom to near bust in a very short time...

Just a couple of years ago it seemed liked Lithium mining was booming. Across the globe ventures were starting amid warnings of dire shortages of the metal that's vital for the supply of electric vehicle batteries.



Greenbushes Mine, Western Australia. (Image: Wikipedia)

Now in 2024 comes news that the Australian Lithium mining industry, the largest in the world, is teetering on the edge of collapse as prices tumble and demand shrinks. So what has gone wrong? It's all down to a combination of falling sales of electric vehicles and a consequent over supply of Lithium on world markets. As a result, prices have fallen by some 75% since June 2023.

Australia produces slightly more than half of the world's Lithium and has the second largest reserves after Chile with huge deposits in Western Australia and the Northern Territories. There have been significant mine shutdowns across Australia. At the same time, other mines in the country have been expanding, confident that the market for the metal will return again - soon.

# SUSSEX MINERAL & FOSSIL SHOW Saturday 16th. November 2024



Haywards Heath College, Harlands Road, RH16 1LT Free parking 10am - 4.30pm

Admission: Adults £3 Children £1 Rockwatch Members Free DISPLAYS & SALES OF MINERALS, GEMS AND FOSSILS

**EXHIBITIONS, COMPETITIONS AND TALKS (see overleaf)** 

CHILDREN'S WORKSHOP - GOLD PANNING & FOSSIL HUNT

FLUORESCENT MINERALS DISPLAYS

The illustrated mineral is Smithsonite and Rosasite with Aurichalcite and Hemimorphite. Sounion Mine No 6, Agrileza Mines, Lophos, Lavrion District, Attiki Prefecture, Greece 14 x 9 x 3 cm Nick Hawes collection

smls.online

facebook.com/sussexmineral



# Down to Earth - in print...

If you've enjoyed reading this Down to Earth extra, you'll love our quarterly Down to Earth! It's a 32-page quality magazine in full colour that's packed with up to the minute geological news and articles. You can get your hands on this either in print or electronic formats. Why not request a FREE sample electronic copy of the current issue?

For 2024/5 why not treat yourself or a loved one to a gift subscription? Go to: www.geosupplies.co.uk and enter the online shop or ring us on 0114 245 5746.

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Extra November 2024



# **Announcing our seventh Summer School...**



# Peak District geology at its very best!

- 6 full days of field work with a choice on some days
- A visit to a Castleton cavern
- A visit to the Peak District Mining Museum in Matlock Bath
- The Triassic rocks of Alderley Edge
- Visit to Wollaton Hall Museum, Nottingham
- The Torrs at New Mills by train from Grindleford
- Geology of Matlock and Matlock Bath
- Geology of Monsal Head & Dale (see image above)
- Coach/minibus transport to field locations
- Full board accommodation in single ensuite rooms (can also be double rooms)
- Evening talks and activities from visiting speakers and our own team
- Social events and opportunities for down time

Everyone is invited to join us for our annual Summer School. The cost is £1395.00 per person whether you are in a single or shared room.

See the brochure & book online at www.geosupplies.co.uk Email downtoearth@geosupplies.co.uk or ring us on 0114 245 5746 Geo Supplies Ltd 49 Station Road, Chapeltown, Sheffield S35 2XE



## The learning zone



We still have some vacancies on most of our 2025 trips. We can accommodate a few more on Cyprus now thanks to a couple of cancellations.

Most trips have only a small number of vacancies, so act quickly to secure your places. This is particularly the case if you are looking for a single room.

To view a brochure, go to our to website at: www.geosupplies.co.uk or Tel: 0114 245 5746

Remember that booking forms are only available direct from us:

Email: downtoearth@geosupplies.co.uk

# Residential Field trip programme 2025...

All trips are available to book NOW!

#### 2025

- Isle of Arran, March 30-April 6
- Troodos Mountains, Cyprus, April 24-May I
- NEW! Scarborough, Yorkshire Coast June 1-6
- Mull & Ardnamurchan, June 11-18
- Western Lake District, June 25-30
- Heart of Wales, July 9-16
- Peak District Summer School, August 9-16
- Iceland, North & East Fjords, September 1-10
- NEW! Torbay, South Devon, October 8-15

Early booking is advised, especially if you are looking for a single room.

Search online at www.geosupplies.co.uk or ring us on 0114 245 5746 Geo Supplies Ltd 49 Station Road, Chapeltown, Sheffield S35 2XE



## The learning zone

#### If you haven't joined one of our residential field trips before, what can you expect?

- Our residential field trips are suitable for adults of all levels of interest and geological knowledge.
- Our trips are friendly and informal and usually comprise 15-20 people. Overseas trips are usually larger.
- We usually make use of comfortable small hotels and guest houses and all meals are included.
- You have the services of Chris Darmon and Colin Schofield as field leaders. Both are highly experienced and knowledgeable field geologists.
- For some trips we have a hired minibus but on other trips we will use shared cars, or even public transport.
- Dates shown in this listing are the start and finish dates.
- Where prices are quoted, they are per person in a shared twin/double room.

If you still have any questions or queries, don't hesitate to email us at: downtoearth@geosupplies.co.uk or tel: 0114 245 5746

#### Before you book for 2025...

We are always pleased to welcome new people along on our trips. So if you are thinking about it, what do you need to know before you 'take the plunge'?

#### Who are the trips aimed at?

The short answer is that they are not aimed at any particular group of people. Our participants are mainly older retired people who want to keep their minds and bodies active, but younger people are welcome.

Some people have lots of geological field experience whilst others are complete beginners. As one person put it to us "I've forgotten all I once knew and need to come along to hear it again." Our UK trips are all small groups of 15 to 20 people maximum so we can make lots of what we say personal to you.

#### Will I be able to manage the walking?

We always try to keep walking to a minimum, but, almost by definition, some walking will be involved. If you can't manage a particular walk, just tell us and it will never be a problem for you not do it. We have one person who really enjoys sketching - she's done some amazing sketches while the rest of us visit a quarry!

#### How do we get about on trips?

It varies a lot from trip to trip. Sometimes we hire a minibus, on other occasions we use public transport and at other times we'll make use of shared cars. Look at the details for each trip to find out.

#### What about accommodation?

We always try to use hotels or guest houses that have ensuite rooms as standard. Most of our accommodation will provide breakfast and evening meals, but sometimes we eat in local restaurants. We include the cost of all food, including a packed lunch for each field day.

We prefer to use small family run hotels and guest houses but they are getting harder to find, so sometimes we use larger hotels such as Premier Inns and hotels in the Leisureplex group. Once again, see the individual trip brochures for details.

#### Are your bookings safe with us?

Yes indeed they are! We've been in the business of running trips a long time and ensure that all the money you pay us is safe in a client trust account until your trip is completed.

#### The 2025 programme...

We are delighted to inform you that we have now completed our programme of residential field trips for 2025. The public offering of nine trips is less than in previous years because we have two private trips for Americans in the frame. We already have strong bookings, so you are strongly advised to get in as soon as you can.

#### To make a booking email us at:

downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746 Whilst the brochures are, or will be, available on our website, booking forms are only available from us. You can then arrange to pay the deposit and we'll send you the booking form.

#### Isle of Arran, March 30-April 6

£1395

Welcome to the Isle of Arran that is the original geologists' paradise. James Hutton was probably the first person to study the geology of Arran in 1786 when he described an unconformity at Lochranza. Since then, thousands have trod the paths to examine the rocks! Arran is currently going down the path to become a full geopark.



Arran on a beautiful day showing the landscape and a magnificent raised beach. (Image: Scottish Geology Trust)

This trip is based at the very comfortable (and warm) Best Western Kinloch Hotel at Blackwaterfoot on the Island's quiet west coast. We spend a leisurely week examining most parts of Arran, making full use of unlimited travel on the local buses - the terminus of the main route is right outside our hotel.

At this time there are vacancies for single and twin/double rooms.

#### Troodos Mountains, Cyprus April 24-May 1 £1795

Come and join us as we visit the Troodos Geopark in Cyprus for the very first time. In the company of an experienced local guide and geologist we'll explore something of the magnificent geology of this great Mediterranean island.

Five nights will be spent based at the Rodin Mount Hotel in the heart of the Troodos Geopark from where we will explore the rocks of this world renowned ophiolite complex. The final part of the trip will examine some of the sedimentary rocks from a second base in the heart of old Larnaca. This is a great time of year to be visiting this upland part of Cyprus - do come and join us!

# **Welcome to our real world?**





The fabulous Troodos Geopark, where geology is at the heart of the landscape

Thanks to a cancellation, we have a double or twin room available for 2 people. In addition, we can accommodate both a male and female if you are willing to share a twin room with another male or female.

#### Scarborough, on the Yorkshire Coast June 1-6 £895

Amazingly, we have never based a trip at Scarborough the 'queen' of the Yorkshire Coast, for the simple reason that we've never found suitable accommodation! Based at the comfortable Cumberland Hotel, we'll spend 5-nights in and around the town, taking in field



The Cumberland Hotel in Scarborough. (Image: Leisureplex)

visits to places like Filey, Forge Valley, Robin Hoods Bay and Whitby to mention just a few. This will allow us to examine rocks from the Jurassic and also the Cretaceous with lots of fossils and sedimentary structures that give us clues to ancient environments.

At the time of writing we have single and double rooms available.

#### Isle of Mull & Ardnamurchan June 11-18 £1695

We have managed to secure reasonably priced accommodation at the Park Lodge Hotel in Tobermory and this trip replaces the one previously advertised to Raasay.

The Isle of Mull and Ardnamurchan will put two Tertiary igneous centres at our disposal with that on Mull being one of the most imposing, whilst that on Ardnamurchan is the most accessible. We also hope to be able to take in a visit to the tiny Isle of Staffa with its famous basalt columns, depending on the weather. Another highlight

will be a visit to the Island of Iona with its Precambrian rocks.



Near the lighthouse at Ardnamurchan Point

With at least one full day on Ardnamurchan we'll be able to take in the fossiliferous Jurassic sediments as well as the basement metamorphics from the Moinian and the Tertiary igneous rocks.

At the time of writing we have only twin/double rooms available on this trip.

#### Western Lake District, June 25-30

The Lake District is renowned for its superb landscape and scenery, but access to the central part is limited and accommodation is very expensive. We have previously stayed at Summergrove Halls in Whitehaven, but this is no longer available to us. Accordingly we've turned to Workington and the comfortable modern Premier Inn.



Amazing New Red Sandstone cliffs at St Bees. (Image: St Bees community)

From Workington we'll be able to access all of the Western Lakes, with trips to see places like Eskdale, Lake Windermere, the iron mines of West Cumbria and St Bees Head.

At the time of writing we can accommodate people in single rooms as well as twins and doubles.

#### **NEW! Heart of Wales. July 9-16**

£1295

This is one of the most unusual offerings in our 2025 programme, for the simple reason that's an area that very few people know about. Mid-Wales, or as we prefer to call it, the Heart of Wales is a sparsely populated area set in the county of Powys.

We'll be based in the quirky Neuadd Arms in the quiet village of Llanwrtyd Wells, which offers excellent food, including an afternoon tea and cake, and even an onsite brewery!

From here we'll explore the surrounding area, taking in Llandrindod Wells with its fossils, Builth Wells with its volcanic rocks, Llandeilo and its famous Ordovician rocks. We take in the local Elan Valley rocks and scenery, the minerals of Cwmystwyth and the fine cliffs of Aberystwyth.

At the time of writing we have vacancies for about five more people.

#### Summer School Peak District, August 9-16

£1395

For the first time in the 7-year history of our Summer School weeks we're actually returning to a place that we've visited before. Cliff College in the Peak District of Derbyshire is a well known Methodist theological college. It provides excellent ensuite bedrooms and lovely home cooked food, and makes for an ideal summer school base.



The beautiful grounds of Cliff College (Image: Cliff College)

We'll be sampling lots of the excellent local geology and giving you those added summer school bonuses of evening talks and special visits to places of cultural and historic interest as well as geology. We can accommodate lots more people at this stage, including people looking for a single room.

#### Iceland - the North & East Fjords, September 1-11 £2595

These days a lot of people go to Iceland, but they very rarely visit the north and east of country. In this trip with our usual guide and driver Ingi, we'll begin at Keflavik near the airport and then travel to Akueyri before working our way clockwise to Myvatn to the volcano Krafla before heading to the beautiful east Fjords.

We'll stop in the amazing geo-village of Borgarfjarðar Eystri to see Iceland's most colourful rhyolitic rocks. The last time we were here we did see the Northern Lights in all their glory!

We fly back from Egilstaddir to Reykjavik and then transfer to Keflavik where we started. There's an option of an additional night at the end to have a day looking at the most recent volcanic activity on the Reykjanes peninsula and viewing the recent lavas, which will still be hot!

We can accommodate a few more on this trip.



The Eastern Fjords are beautiful in any season! (Image: Chris Darmon)



NEW! The South Devon Riviera, Torbay, October 8-15 £1295 Distinctive Red Permian rocks of South Devon

The South Devon Riviera coast has been a holiday destination for more than 150 years and we will be staying in the family run Hotel Balmoral in Torquay. From here we will be exploring the local area that lies within the UNESCO world geopark. This is an area of great coastal scenery, with lots of Devonian sediments, plus some volcanics. As the geology is best seen from the sea, we'll ensure that we have at least one boat trip out into Torbay to get up close and personal with the cliffs and their fabulous structures. We also hope to take a trip on the Paignton and Kingswear steam railway and combine it with another boat trip on the River Dart ot Totnes.

The brochure for this trip is now out and we have already taken some bookings

For further information or to book, email: downtoearth@geosupplies.co.uk



Don't worry, we don't bite!

All our educational classes and courses are friendly, informal and open to all.

Come and join us!



# **Distance Learning**

#### Learning with us is FUN...

We've been offering online and distance learning since before Covid and over that time hundreds of people have taken part in our learning programmes from the UK and around the world.

All our learning programmes are created and delivered by our in house team of Chris Darmon and Colin Schofield. Both are experienced teachers of distance learning over many years.

We deliver courses that are enjoyable and stimulating whilst at the same time being informative and educational. No one is required to carry out any sort of assessment and there's no entry requirements or formalities.

Just sign up and go!

#### Your last chance for Autumn courses!

#### The Geology of the British Isles

This was one of the first distance learning courses that we devised. Over the years, many people have embarked on this geological journey since then, but now, for only the second time, we're bringing it to you live!

Chris is looking forward to sharing the British Isles' journey through time in 13 hour-long Zoom sessions. Each session will be brought alive through the use of YouTube videos and photographs, augmented by Chris's stories and Colin's material on Moodle. We want this to be the best course ever, aided and abetted by your own participation.

Course dates: Starts Monday November 11 - December 16 and then restarts January 13 for a further 7 weeks.

Cost: Thirteen hour-long Zoom sessions with electronic background papers £80.00 for one person or £95.00 for 2-people studying together. Printed background papers cost an additional £25.00. Zoom sessions on Mondays at 2.00 and 7.00 pm (you choose)



The Severn Bridge spans the Bristol Channel - but what's the geological story? (Image: National Highways)

#### Time Traveller's Britain - all new locations!

Under this title we've explored more than 30 parts of the British Isles and examined the work of some of our geological pioneers, but for this short course, we're bringing you six more brand new episodes in the series!

Book the whole course or individual sessions at £10.00 each.



Rock & Spindle volcanic neck, St Andrews

Come with us as we explore the Mendips, Islay and Jura, the Kingdom of Fife, Snowdonia (Eryri), Shropshire and the Bristol Channel.

At the heart of each session is an hour long live Zoom presentation with electronic background material. You'll hear from Chris and Colin some of their personal reflections on the areas concerned along with the most up to date interpretations of the geology.

Course dates: Starts Thursday November 14 - December 19 Cost: take all six sessions for £4.00 for one person or £50.00 for 2-people studying together, or £10.00 for each session. Printed background papers cost an additional £10.00. Zoom sessions on Thursdays at 2.00 and 7.00 pm (you choose)

#### The Wednesday club...

Over the past couple of years, we've been running a series of one-off sessions covering random geological topics. These were branded as 'Wednesdays at 7'.

Whilst these have been very popular, several of you urged us to also offer the same session in the afternoon. Well, we've listened and now you can enjoy the same content in the afternoon or the evening!

| November 13 | Alabaster - occurrence and uses             |
|-------------|---|
| November 20 | Graptolites - a geological enigma           |
| November 27 | Potash & Polyhalite mining in the UK        |
| December 4  | Metamorphic rocks in a nutshell!            |
| December 11 | The Ediacarans - the world's first fossils? |
| December 18 | Gemstones of the British Isles              |

Cost: Take all six sessions for £40.00 or book them individually for £10.00 each.

Timings: Wednesdays at 2.00 or 7.00pm - your choice.

To register interest, email us at: downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746

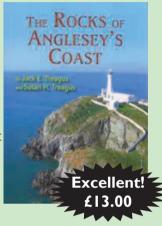
You can enrol via our online shop at: www.geosupplies.co.uk or ring us on: 0114 245 5746



# Featured books for November 2024

In each issue we are pleased to be able to introduce you to a range of featured books. Where they are being offered at reduced prices, these will be current to the end of November 2024 provided that stocks are available. Please note, all prices include UK postage.







Buy both of the above for £10.00





THE ISLAND OF VOLCANOES

New!

