



# THE GEOLOGICAL SOCIETY OF GLASGOW

## Newsletter - February 2025

### Lecture Programme

Lectures continue to be held in Room 407 of the Boyd Orr Building (unless otherwise noted). **Note: Meetings commence at 7.00 pm.** Room 407 is on the 4th floor. We will record the lectures but not the Q&A and will not be offering a live zoom.

### Thursday 6<sup>th</sup> February 2025 (NOTE: This is the first Thursday in February)

*Dr. Alex Dunhill, University of Leeds*

#### **“Species loss, community collapse and ecosystem recovery during times of mass extinction”**

Our planet has suffered repeated mass extinctions that have shaped the evolutionary history of biodiversity through time. Although current state-of-the-art research has given us a thorough understanding of the causes and consequences of mass extinction events, existing research ignores the role of ecosystem structure in providing resilience to environmental change. Ecological theory states that primary extinctions, which are a function of stress type or organism sensitivity, can lead to cascading secondary extinctions where species perish because they are unable to meet energetic requirements from available prey. Extinction selectivity studies always assume extinctions are primary despite ecological theory hinting that many victims of mass extinctions are unlikely to have become extinct as a direct effect of abiotic stress, but probably did so

in response to cascading secondary effects. Furthermore, whilst almost all major environmental change events of the Palaeozoic and Mesozoic resulted in catastrophic losses of biodiversity, more recent events in the Cenozoic only lead to modest or no rise at all in extinction rates despite profound environmental changes. A number of Earth system mechanisms have been proposed for the lack of Cenozoic mass extinctions, relating to carbon cycle buffering via supercontinent fragmentation and calcareous nannoplankton evolution. However, it has also been hypothesized that modern community structure was established in the aftermath of the Cretaceous-Palaeogene (K/Pg) mass extinction and thus the lack of Cenozoic mass extinctions is a function of increased resilience of marine ecosystems. In this lecture, I will detail the cutting-edge advancements in ecological modelling that I am applying to the fossil record. This is to investigate how marine ecosystem structure changed through the Phanerozoic and whether modern marine ecosystems are more resilient to major disturbance in comparison to ancient communities in an attempt to shed light on the resilience of marine communities to future climatic stress.



*Alex is the Associate Professor of Palaeobiology at the University of Leeds and leads the DeepBio@Leeds Research Group. The group's research focuses on large scale macroevolutionary and macroecological processes through deep time and the accuracy of biodiversity data obtained from the fossil record. Alex is a graduate of the University of Sheffield and has a PhD from the University of Bristol. Prior to his faculty appointment, he was a Leverhulme Early Career Fellow at Leeds and was previously a Royal Commission for the Exhibition of 1851 Research Fellow in the Milner Centre for Evolution at the University of Bath.*



### Recordings of past lectures

St Andrews students' Greenland Expedition <https://youtu.be/giy1WE9L-Cw>

Stuart Haszeldine: Carbon Capture & Storage <https://youtu.be/oXiIQD7eHdk>

Heather Stewart: The Abyss Gazes Also Into You <https://youtu.be/-6b9bi-AehM>

Paige dePolo: Pantodonts from New Mexico <https://youtu.be/RWamAw6uo10>

Luisa Hendry: Promoting geology through social media <https://youtu.be/ksMcrrTyCg8>

GSG YouTube channel <https://www.youtube.com/channel/UCfNSIvgEbUfLWMSCeNiRm1w/>

## **Next talks**

|          |  |   |                                |                            |
|----------|--|---|--------------------------------|----------------------------|
| March 13 | Dr. Simon Cuthbert                         | Eclogite Shangri-La: Vestiges of the Grenville orogen in the northwest Scottish Highlands (and some heroes of Scottish geology) | Retiring Presidential Address. | Room 407 Boyd Orr Building |
| April 3* | Kiara Brooksby<br>Camborne School of mines | Economic Geology (title tbc)  | GSG Grant awardee              | Zoom Event                 |
| May 8    | Members' Night                             | see note below  |                                | St Andrews Building.       |

\* Please note that the April Lecture is the 1st Thursday of April - not the second.

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## **Members' Night**

Our annual Members' Night meeting in May might seem some way off but these long winter evenings are ideal for musing over your geology adventures last summer - and thinking about how you could share your finds with fellow Glasgow geologists! Members' Night is just what it says on the tin - every member's chance to give a go. It can be an informal, 10 minute illustrated talk, a poster or a table-top exhibit. It doesn't have to be highly technical or polished - basic and simple are best. It might be a travelogue, or you could even ask "What's this - it looks interesting but I've no idea!". If you'd like to offer a contribution, please email [meetings@gsocg.org](mailto:meetings@gsocg.org) with a title for your topic. If you'd like some advice or assistance, please do ask. We look forward to sharing your discoveries in May!

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## **Day Trips Excursion Programme**

Full details of day trips will be published in the March Newsletter, and you will then be able to book and pay through webcollect. Some provisional dates so far:

April TBC

2 May- Portencross (Note this is a joint SGG/GSG trip - and is a Friday)

17 May - Loch Ardinning - Field skills day

11 June - Kelvin Walkway

July TBC

2 August - Girvan

September TBC

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## **Residential Excursion Programme**

8-12th May 2025: Garvellachs – Leader David Webster

Trip full. email [sec@gsocg.org](mailto:sec@gsocg.org) to go on the waiting list

4th-8th September 2025: Glenelg, and Kintail – Leader: Simon Cuthbert.

Full details in next newsletter. Staying at Glenelg Hotel. Approx cost £400.

March 2026: Shropshire. Details TBC

September 2026: Skye. Details TBC

If you are potentially interested in the Glenelg, Shropshire or Skye trips please email [excursions@gsocg.org](mailto:excursions@gsocg.org) as it helps with planning if we have a rough idea of numbers.

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## **Geonatter**

This year the sessions are switching to monthly, but don't worry as we will run sessions over the holidays so we can enjoy GeoNatter all year. This will allow some of our school age attendees a chance to come and get their rocks/fossils identified. (Please share dates with any family and friends you think might be interested)

Thank you to everyone who comes along and makes GeoNatter so much fun, and remember to keep rummaging for things to bring along as we all love the challenge of trying to identify new rocks and fossils.

**Next dates:** 5 Feb, 5th Mar, 2 April, 7th May

## New Members

We welcome the following new members who have joined the Society since the start of the session (from 1/10/24)

|                    |                   |
|--------------------|-------------------|
| Ben Hardman        | Michael Bowles    |
| Freyja Baird       | Sheila Russell    |
| Disha Borse        | Noel Williams     |
| Abijith Manoj      | Tom Martin        |
| Alison Hicks       | Yousif Mohamed    |
| Yasamin Bayley     | George Lappin     |
| Patricia Callender | Chloe Chigumba    |
| James Campbell     | Terry Callow      |
| Craig Dooris       | Maria Karssenber  |
| Oliver Gilmore     | Robert Locke      |
| Dr David Haselden  | John Mitchell     |
| Michael Hinds      | Lesley Mitchell   |
| Elisa Lanzani      | Scott Van B       |
| Nathan Martin      | Nicole Stuart     |
| Annick McGarrigle  | Breian McGarrigle |

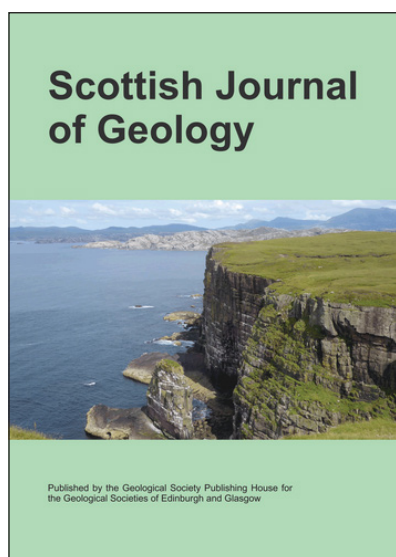
## Library

We currently have the newly released (Aug 24) book “The Geology of Scotland, 5th edition” available to borrow. With a price tag of upto £130, it’s an excellent chance to get your hands on a copy to read for free. email [library@gsocg.org](mailto:library@gsocg.org) to reserve a copy.

## Scottish Journal of Geology

The entirety of Volume 60 was published as a single printed book last November. As members you have free access to the online pdf of individual papers or the entire volume, however a professionally printed copy of the whole volume (7 papers) is available, and some members have already requested one.

If you haven’t already notified us that you wish to buy a printed copy then please contact [library@gsocg.org](mailto:library@gsocg.org). Exact price TBC.



## Earth Heritage Magazine

Download the latest edition at: <https://www.earthheritage.org.uk/>

## Geological Society of London - Free Lectures

The Geological Society hosts public lectures throughout the year to share knowledge with the geoscience community. These monthly lectures are open to everyone and free to attend.

The lectures are ordinarily held at Burlington House in London and virtually via Zoom.

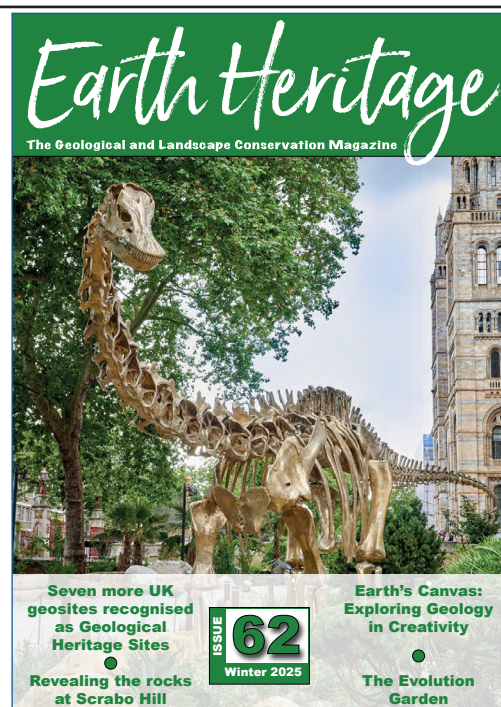
18 February: From Apollo to Artemis

18 March: The Stegosaurian Dinosaurs

20 May: Re-storifying Planet Earth: narratives and storylines for publics and policymakers

17 June: Forged by fire - How can volcanoes shape out landscapes, lore and lives

Details on their website [here](https://www.geological-society.org.uk/)



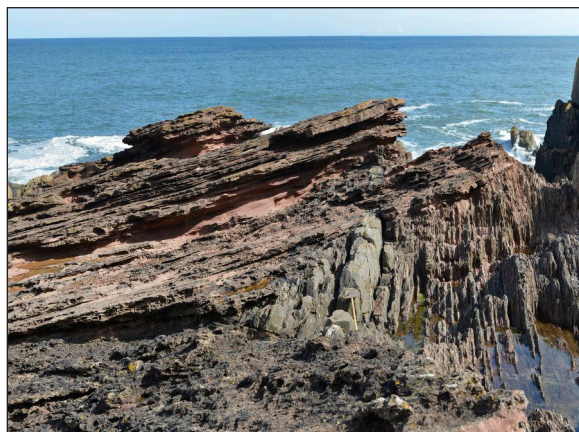
## **Geology Bites**

### **New episode on deep time.**

Richard Fortey has devoted his long and prolific research career at the Natural History Museum in London to the study of fossils, especially the long-extinct marine arthropods called trilobites. In an earlier episode of Geology Bites, he talked about measuring time with trilobites. In this episode, he describes how it was the fossils in the geological record that gave us the first markers along the runway of deep time, providing the structure and language within which our modern conception of deep time emerged.

Richard Fortey was head of arthropod palaeontology at the Natural History Museum in London and is the author of popular science books on a range of subjects including geology, palaeontology, evolution and natural history.

<https://www.geologybites.com/richard-fortey-deep-time>



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## **Edinburgh Geological Society**

12th February Katriona Edlmann: Geological storage of Hydrogen for Net Zero

26th February Mike Browne: Geoconservation in Scotland

12th March Doug Benn Glacier surges in Svalbard and Scotland

More information at: <https://www.edinburghgeolsoc.org/lectures/>

There are also lots of past lecture recordings on the EGS website

## **Field Excursion**

Almeria Province, SE Spain. Professor Dorrik Stow, Heriot Watt University, Edinburgh – 3-10 May 2025

Coordinator – Emma Bedda [excursions@edinburghgeolsoc.org](mailto:excursions@edinburghgeolsoc.org)

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## **NWH Geopark**

The NWH Geopark have a series of online Winter talks in 2025, s

February 11, 2025 @ 19:30 – 21:00 Zoom Talk – Dr Frances Dunn on The Early Evolution of Animal Life

March 11: Dr Stephen Davison on new Microfossils from the Stoer Group Limestones at Enard Bay

More info at: <https://nwhgeopark.com/events/list/>



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## **Geological Society of Glasgow**

<https://geologyglasgow.org.uk/>

President: Margaret Greene [pres@gsocg.org](mailto:pres@gsocg.org)

Secretary: David Webster [sec@gsocg.org](mailto:sec@gsocg.org)