



# EDINBURGH GEOLOGICAL SOCIETY

Promoting public interest in geology and the advancement of geological knowledge

## Spring Newsletter 2023

The last six months have proved to be a busy time for EGS. The Council has dealt with various matters including the Scottish Journal of Geology contract with the Geological Society Publishing House (working with Glasgow GS), Siccar Point initiatives and the wider promotion of our activities.

Throughout the year, I have been supported by Mike Browne, our Acting President. His help has been immense. We now welcome a new President, Dr Mark Wilkinson. Mark has worked in the geoscience departments in both Glasgow and Edinburgh universities, and is now a senior lecturer. His published papers are mostly concerned with Scottish geology, including many about North Sea sediments. His current research is focussed on the geological side of climate-change mitigation, including carbon capture and storage, and energy storage. Mark regularly leads field excursions to the north-east of Scotland and the Lake District, plus more local venues.



Neil Mackenzie, EGS Secretary, [secretary@edinburghgeolsoc.org](mailto:secretary@edinburghgeolsoc.org)

## Leiden Geological Society visit to Edinburgh

We are eagerly looking forward to a visit to Edinburgh in June by 31 members of the Leiden Geological Society. Members of the group have been researching James Hutton's brief stay in Leiden, where he received his medical doctorate in 1749. We are delighted to host, along with the University of Edinburgh, a free public talk on this research (see below). The programme includes tours in Edinburgh, a visit to Siccar Point and the Great Tapestry of Scotland in Galashiels. The group will then visit Glasgow and Arran.

### Public talk by Bert Schuchmann: James Hutton in Leiden, 1749 – How the future founder of modern geology earned his doctorate in just a few weeks.

**Tuesday 6 June 2023, 6pm at St Cecilia's Hall, 50 Niddry Street, Edinburgh EH1 1LG**

James Hutton stayed in Leiden, the Netherlands, for a few weeks in August and September 1749; a minimum of 29 days, and probably longer. This has been confirmed from original documents. Was it common to graduate in such a short period of time? How long did he really stay? Where did he live? The original house is gone. What did it look like and what happened to it? Who else lived there at the time? Where did Hutton go to during his sojourn in Leiden? Who did he meet? Finally, did Leiden have any influence on Hutton? These questions were raised and are tentatively answered.

The talk is free, but advance booking is essential – [www.edinburghgeolsoc.org/hutton-in-leiden](http://www.edinburghgeolsoc.org/hutton-in-leiden)



View of Leiden Academy 1763

### Book offer: James Hutton's stay in Leiden (1749)

In celebration of their 90th anniversary, the Leiden Geological Society are publishing an 86-page book in English, detailing their recent research into James Hutton's stay in Leiden in 1749. This shows that in the 18th century there was lively diploma-tourism by numerous foreign students attracted by the fame of Leiden University. The author Bert Schuchmann also attempts to find a possible influence of the Leiden-ethos on Hutton's subsequent intellectual development. The book will be available in-person at the public talk on 6 June. We can also distribute it by post after the event, but it must be pre-ordered through the EGS website at a cost of £6 plus postage.

### DATES FOR YOUR DIARY

6/7/10/11 April, 10am – 1pm  
**Edinburgh Science Festival beach pebble events**

Wednesday 19 April, 7pm  
**Excursion: Below Arthur's Seat**

Saturday 29 April, 10:30am  
**Excursion: Great Cumbrae, Firth of Clyde**

Wednesday 3 May, 7pm  
**Excursion: New Town, Edinburgh**

10-16 May  
**Long Excursion: Isle of Man**

Wednesday 17 May, 7pm  
**Excursion: Fife Quarry**

Saturday 27 May, 10am  
**Excursion: Weaklaw and Cheese Bay, East Lothian**

Tuesday 6 June, 6pm  
**Public talk: James Hutton in Leiden, 1749**

Wednesday 7 June, 7pm  
**Excursion: Comiston Springs, Edinburgh**

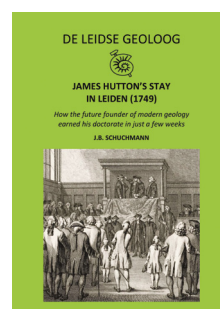
Saturday 10 June, 11am  
**Excursion: Wormit Shore, Fife**

Wednesday 14 June, 7pm  
**Excursion: North Berwick shore, East Lothian**

Saturday 24 June, 9am  
**Excursion: Pease Bay to Cove**

Saturday 8 July, 10am  
**Excursion: Fisherman's Haven, Berwick upon Tweed**

Saturday 19 and Sunday 20 August  
**Weekend Workshop: the Carboniferous Fife-Midlothian Basin**



## Excursion Programme 2023

Our Excursion Programme includes full-day excursions on Saturdays (plus one Sunday) and shorter Wednesday evening excursions, led by geologists with expert knowledge of the locality. Visit the EGS website at <https://www.edinburghgeolsoc.org/excursions/> for full details, and please read and take note of the Code of Conduct & Safety Guidelines. You must book in advance for all excursions, as numbers are limited for safety reasons. Please give your mobile number in case we need to contact you. Book online via WebCollect: [webcollect.org.uk/edinburghgeolsoc](http://webcollect.org.uk/edinburghgeolsoc)

There is a charge of £5 for most Saturday and Sunday excursions, which is payable when booking. The charge is higher for excursions where a coach is provided – see the excursion description for further information. There is no charge for the Wednesday evening excursions, where you need to make your own way to the meeting point. Many are accessible by public transport.

You must notify David Graham, the Excursions Booking Secretary if you have booked an excursion and are not able to attend – otherwise you may prevent someone else from enjoying the excursion.

Angus Miller, Acting Excursions Secretary and David Graham, Excursions Booking Secretary  
[excursions@edinburghgeolsoc.org](mailto:excursions@edinburghgeolsoc.org)

### Long Excursion: Isle of Man 10-16 May 2023

Some places are possibly available on the Long Excursion to the Isle of Man, postponed from 2020. Leaving Edinburgh on Wednesday 10 May, returning on Tuesday 16 May. Contact Anne Burgess, preferably by email to [longexcursion@edinburghgeolsoc.org](mailto:longexcursion@edinburghgeolsoc.org).



Carboniferous sedimentary rocks at Cove Harbour, East Lothian.  
Photo: Angus Miller.

## Saturday / Sunday Excursions

Saturday 29 April, 10:30am

### Great Cumbrae, Firth of Clyde

**Leader: Fiona McGibbon**

The geology of Great Cumbrae can be summarised as red sandstone and basaltic dykes, but in fact, there are numerous types of each, as well as a major fault crossing the island. This excursion will examine Devonian conglomerates and overlying Carboniferous strata with excellent sedimentary structures as well as numerous dyke suites, some of which have been enhanced to become major landmarks.

Saturday 27 May, 10am

### Weaklaw Rocks to Cheese Bay and Black Rocks, East Lothian

**Leader: David Stephenson**

We will start by establishing the relationships of the Weaklaw Vent with overlying rocks of the Garleton Hills Volcanic Formation and examine structural relationships in superb three-dimensional exposures at the Hanging Rocks. The dominantly sedimentary succession of the Strathclyde Group above the volcanic rocks to the west includes thin beds of tuff, which pick out some spectacular folds in the intertidal zone. These tuffs seem to be composed largely of clasts of sedimentary rock but have not been investigated or described in detail. Around the headland, Cheese Bay is famous for its well-preserved shrimps and fish fragments but the section between there and Black Rocks also exposes basaltic intrusions with interesting contact relationships that provide clues to their age and suggest possible links to the non-volcaniclastic tuffs, tuffisites and 'cryptovents'.

Saturday 10 June, 11am

### Wormit Shore, Fife

**Leader: Rosalind Garton**

This excursion will visit volcanic and sedimentary rocks of Old Red Sandstone age on the shore of the Tay estuary. Features include a microgranite intrusion, contacts between lavas and sedimentary rocks, volcanic conglomerate, "peperitic" rock and a large glacial erratic.

Saturday 24 June, 9am

### Pease Bay to Cove, Scottish Borders

**Leader: Stuart Gilfillan**

On this excursion along the shore from Pease Bay to Cove will observe the transition from desert-fluvial conditions which had persisted from the early Devonian to the marine conditions of the Carboniferous. The route involves rough walking on rocky wave-cut platforms and some scrambling in places, it is not suitable for anyone with mobility difficulties. Coach provided: cost £20.

Saturday 8 July, 10am

### Fisherman's Haven, Berwick upon Tweed

**Leader: Mark Wilkinson**

The sediments exposed in the bay of Fisherman's Haven at Berwick include all the physical components of a "petroleum system": source rock, reservoir, seal, trap. This makes the location a great place for teaching basic petroleum geology, or (rather greener and more forward-looking) about geological carbon storage, or even geological hydrogen storage. Within about 1km there is structure (a dome plus a well-exposed fault); shales; sandstones and limestones, plus a coal. The shale exposure is one of the best in the area, and has an interesting pattern of steadily increasing intensity of bioturbation upwards. Freshwater bivalves can also be found.



Stigmaria fossil from Fife. Photo: Katie Strang.

Saturday 19 and Sunday 20 August

### **Weekend Workshop: the Carboniferous Fife-Midlothian Basin**

**Leaders: Victor Heme de Lacotte and Chester Davies (Keele Uni PhD students), and Dr Louis Howell (Capricorn Energy)**

Four linked excursions over two days at sites around the Carboniferous Fife-Midlothian Basin. These will explore the strata and sedimentology of the Leven-Midlothian syncline on either side of the Forth. Saturday will be spent in Fife, visiting Kirkcaldy-Dysart and Lower Largo. Sunday will cover Joppa and Prestonpans in East Lothian. There will be opportunities to learn the rudiments of stratigraphical logging, to carefully examine key changes and translate our findings into interpretation of the offshore seismic data. Informal post-fieldwork discussions can continue over refreshments. Numbers will be limited to 15 participants, and ideally both days will be attended.

## **Wednesday Evening Excursions**

Wednesday 19 April, 7pm

### **Arthur's Seat – the dark side**

**Leader: Angus Miller**

The eroded basaltic volcanic cone of Arthur's Seat displays an impressive range of features including lava flows, ash layers, and a complex central vent with agglomerate and intrusions. Our route on the 'dark side' of Arthur's Seat will include close-up views of Samson's Ribs, and various outcrops near Duddingston Loch. We will return along the Queen's Drive through the central vent.

Wednesday 3 May, 7pm

### **St Andrews Square / East end George Street, Edinburgh**

**Leader: Andrew McMillan**

An examination of the building stone geology of the New Town including the Scottish National Portrait Gallery and George Street; this excursion will serve as a recce for a new booklet to be published by the Lothian and Borders GeoConservation group.

Wednesday 17 May, 7pm

### **Fife Quarry**

**Leader: Dr Katie Strang**

Coal mining in Scotland has left a significant legacy in west Fife. From our society and culture, to the locations of our towns and villages, to the shape of our landscapes. In addition we have gained a wealth of palaeontological information from these coal-bearing deposits. This excursion will take a trip around an old colliery which is currently being reclaimed, to learn about the industrial heritage and look at material in the old spoil heaps.

Wednesday 7 June, 7pm

### **Comiston Springs, south Edinburgh**

**Leader: Ken Hitchen**

We will visit the location of the four main Comiston Springs – the source of the water for Edinburgh's first ever clean water supply in 1676. We will then visit the Comiston cistern building where the water was collected before being piped to the 'Old Town' where it could be collected in buckets by local residents. We will see where the present day outflow from the cistern has been diverted into the Braid Burn and learn how to recognize and plot the route of the original 1676 pipeline under the eastern slope of Braidburn Valley Park and the suburbs of south Edinburgh.

Wednesday 14 June, 7pm

### **North Berwick shore, East Lothian**

**Leaders: Godfrey Fitton and Angus Miller**

The beach and cliffs to the east of North Berwick harbour expose a superb range of volcanic rocks formed in the early Carboniferous. Shallow-water eruptions of Surtseyan style created a thick layer of tuffs, topped by basaltic lava flows. The main target of the excursion is to examine the textures and features of explosive volcanic rocks close to Partan Craig. These include garnetiferous gneiss xenoliths, first described by Brian Upton and colleagues in 1976. The keen eyes of a party of EGS members will find much of interest in fresh inter-tidal exposures.

## **Earth science courses at the Centre for Open Learning, University of Edinburgh**

The Centre for Open Learning, based on Holyrood Road in Edinburgh, has a long tradition of teaching introductory classroom and excursion courses in Earth science. Term 3 starts on 17 April, and includes the following courses of interest:

### **From the Mountains to the Sea: An Introduction to Geomorphology with Nikolaos Kourampas.**

Tuesdays from 18 April, 11am – 1pm, 6 weeks.

### **Introduction to Palaeontology with Tom Challands**

Wednesdays from 19 April, 2-4pm, 10 weeks.

### **Earth Science Field Trips with Fiona McGibbon.**

Thursdays from 20 April, 6 weeks.

### **Palaeontology in the Field with Tom Challands.**

Wednesday 28 June, 10am – 4pm, one day course.

Look out also for a range of classroom, online and excursion courses in the next academic year, starting from 25 September.

Full details here: <https://www.ed.ac.uk/studying/short-courses/subjects/other-subject-short-courses/science-nature>

## Grants for research and promoting public interest in geology

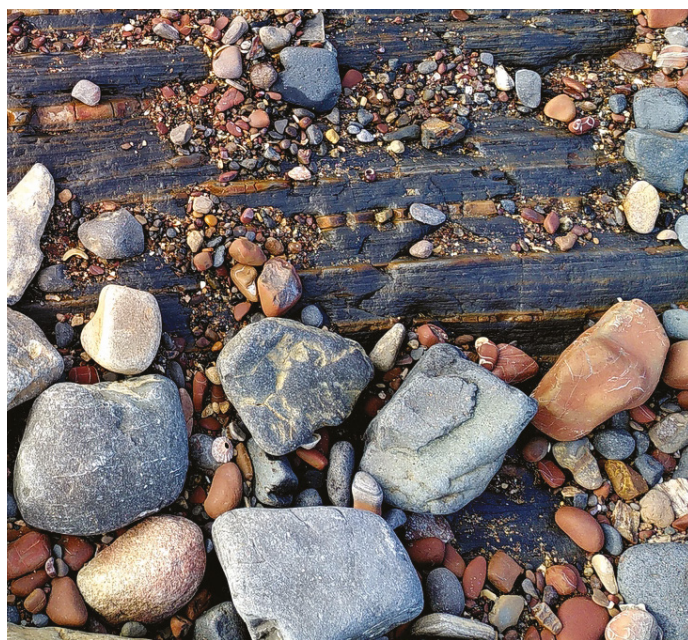
EGS gives grants to support fieldwork and to support projects that further the aims of the Society. The next grant deadline is fast approaching, and we are keen to support more applications. Details about Fieldwork Grants from the Clough and Mykura Funds and Project Grants, which may be from individuals or organisations, are available on our website <https://www.edinburghgeolsoc.org/home/grants-and-awards/>

We are also accepting nominations for the Society's premier award, the Clough Medal. Deadline for all grant applications and nominations is 31st March.

## Beach Pebbles at the Edinburgh Science Festival

**Thu 6, Fri 7, Mon 10 and Tue 11 April, 10am to 1pm**

EGS is running four events on local beaches for this year's Science Festival, inviting people to come and explore beach pebbles, and find out about the stories hidden in every pebble. We'll discover an amazing variety of different types of pebble, find out where they come from and what they tell us about Scotland's geology. We'll also explore why the beach looks the way it does, and how it might change in the next few decades with climate change. All welcome! Events take place at Cramond, Portobello, Wardie and Joppa – find out more at <https://edinburghgeolsoc.org/science-festival/>. We are looking for volunteers to support these enjoyable and engaging events. You don't need any particular geological knowledge, it is really useful to have extra hands to welcome people and give out information. To find out more please get in touch with Angus Miller on 0131 555 5488, [promotion@edinburghgeolsoc.org](mailto:promotion@edinburghgeolsoc.org).








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The Edinburgh Geological Society is a friendly and informal organisation with a wide range of members of varied backgrounds and interests, united in an interest in rocks and the science of the Earth. This newsletter is published in September and March, with details of our lectures and excursions programme.

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