



EDINBURGH GEOLOGICAL SOCIETY

Promoting public interest in geology and the advancement of geological knowledge

Spring Newsletter 2022

Covid has dominated so many aspects of life over the last two years, including the activities of the Edinburgh Geological Society. As 2022 gets underway there is some hope that we might edge back towards normality, with perhaps a few in-person lectures at the Grant Institute and a more normal excursion programme. Despite the travails of the pandemic, EGS is in good heart. As the Annual Report shows, membership continues to increase and we are in a strong financial position. There are many opportunities for members to contribute to, and benefit from, the Society – some of these are outlined in this Newsletter but please get in touch if you have ideas that you would like to take forward. Most of all, as spring approaches I hope you are able to get out and about and enjoy some fabulous geology!

Tom Challands, EGS President, president@edinburghgeolsoc.org



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.



Paige dePolo (right) and Davide Foffa (left) discuss the stratigraphy of the Great Estuarine Group that crops out in Camas Mòr on the Isle of Muck. The Mykura Fund supported the fieldwork and Paige reported on initial results at our Fellows' Night. Photo: Greg Funston.

Beach Pebbles at the Edinburgh Science Festival

Wednesday 20 to Saturday 23 April, 10am to 1pm

As our contribution to this year's Edinburgh Science Festival, EGS is running four events on local beaches, 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 Wardie, Portobello, North Berwick and Dunbar – find out more at <https://edinburghgeolsoc.org/science-festival-2022/> and if you would like to volunteer to help at an event, get in touch with Angus Miller, promotion@edinburghgeolsoc.org.

DATES FOR YOUR DIARY

20-23 April, 10am
Edinburgh Science Festival beach pebble events

Saturday 23 April, 9am
Excursion: Fossil sites in Angus

Saturday 30 April, 10am
Training: Local Geodiversity Site monitoring, Aberlady

Wednesday 4 May, 6pm
Excursion: Petershill Quarry, Bathgate

10-16 May
Long Excursion: Isle of Man

Wednesday 18 May, 7pm
Excursion: Aberlady

Saturday 28 May, 9am
Excursion: Wanlockhead

Wednesday 1 June, 7pm
Excursion: North Berwick Law

Saturday 4 June, 9am
Excursion: Eyemouth and Burnmouth Coast

Saturday 18 June, 10am
Excursion: Kinghorn Volcanic Formation

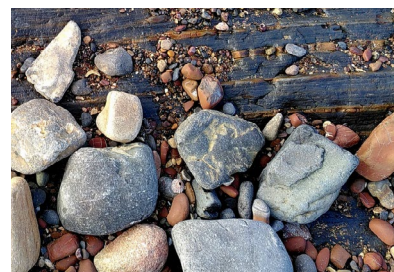
Wednesday 22 June, 6.30pm
Excursion: Siccar Point/Pease Bay

Saturday 2 July, 10am
Excursion: Burntisland

Saturday 16 July, 10.30am
Excursion: South Queensferry to Hound Point

Wednesday 20 July, 7pm
Excursion: Whinny Hill and Dunsapie Crag

19-21 August
Weekend Excursion: Coire Glas, Loch Lochy



Excursion Programme 2022

Our Excursion Programme includes full-day excursions on Saturdays 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.

There is a charge of £5 for most Saturday excursions, which is payable when booking. The charge is higher for the two Saturday 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.

Ian Kearsley, Excursions Secretary & David Graham, Excursions Booking Secretary
excursions@edinburghgeolsoc.org

Long Excursion: Isle of Man 10-16 May 2022

Some places are possibly available on the Long Excursion to the Isle of Man, postponed from 2020. Leaving Edinburgh on Tuesday 10 May, returning on Monday 16 May. Contact Anne Burgess, preferably by email to longexcursion@edinburghgeolsoc.org, or by letter to 21 Woodside Place, Fochabers IV32 7HE. All emails will be acknowledged, so if you do not get a response within a couple of days, please try again.

Weekend Excursion: The Geology of Coire Glas, Loch Lochy 19-21 August 2022

Leader: Graham Leslie, BGS

Coire Glas, northwest of Loch Lochy, is a proposed pumped hydro storage scheme with a potential capacity of up to 1500MW, which will more than double the UK's existing electricity storage capacity.

The bedrock geology of the region comprises two principal lithological units, separated by a faulted boundary. NW of this fault, strata are assigned mainly to the Upper Garry Psammite Formation of the Moine. To the SE, the bedrock is thoroughly cataclastic and assigned to the Great Glen Fault. Fracture fillings range from granite to dolerite, as well as fault-breccia and a wide range of other cataclastites of various ages. Carbonate mineralisation occurs in the fault damage zones and there are many minor intrusions, both Caledonian age and Carboniferous dolerite.

The group will be based around Invergarry, meeting on Friday evening for two full days in the field. Day 1 is potentially a strenuous hill walk involving 800-900m of ascent. For further information, contact the Excursion Secretary Ian Kearsley who will advise when bookings will be taken. Places will be limited to around 15, and once booking opens will be allocated on a first come basis.



EGS members inspecting grooved bedding on Cocklaw Beach, on the 2021 Weekend Excursion to the Northumberland Coast. Photo: Steve Livera.

Saturday Excursions

Saturday 23 April, 9am to 4pm

Lower Devonian fossil sites in Angus

Leader: Bob Davidson, Aberdeen University

We will visit some of the most important sites of historic interest in the correlation of Lower ORS fish beds. Outcrop visualisation, possible collecting and discussion of the history of research will take place at a number of locations in Angus including Balruddery Glen and Tillywhandland Quarry. A coach will be provided for this excursion, leaving Waterloo Place at 9am, cost £20 per person. Because of the logistics of the excursion, all participants are expected to join the coach.

Saturday 28 May, 9am to 4pm

Historical Lead-Zinc Mining at Wanlockhead

Leaders: Jon Evans, Mining Museum and Ian Kearsley, EGS

Lead mining started at Wanlockhead in the 17th century and continued intermittently until 1958. Along with Leadhills, this was one of the most important areas of Lead-Zinc mineralisation in Scotland. We will visit the spectacular Mining Museum, go underground to see the Lochnell vein, visit the renowned Miner's Library and mine dumps at Glencreiff and in Whyte's Cleuch. At the old smelter site we will consider remediation work planned to reduce the impact that mining has had on the River Nith catchment. A coach will be provided for this excursion, leaving Waterloo Place at 9am, cost £10 per person. An additional £10 fee will go towards the Museum's upkeep (Adult admission would normally cost £22).

Saturday 4 June, 9am to 4pm

Eyemouth and Burnmouth Coast, Scottish Borders

Leader: Alastair Robertson, Edinburgh University

This excursion will consider the demise of the Iapetus Ocean and the birth of the Midland Valley, looking at the sedimentary, volcanic, structural and palaeontological setting of the Silurian/Devonian to early Carboniferous in south-east Scotland.

Saturday 18 June, 10am to 3pm

Kinghorn Volcanic Formation, Fife

Leader: David Stephenson, EGS

This excursion will examine a well-exposed, almost complete section through the Late Visean KVF, composed mainly of basalt lavas with thin beds of pyroclastics and volcanoclastic sedimentary rocks. There are fine examples of columnar jointing, hyaloclastite and pillows, all erupted from small volcanic cones on land close to sea level, as evidenced by interbedded fossiliferous limestones.

Saturday 2 July, 10am to 4pm

Burntisland, Fife

Leader: Katie Strang, EGS and Scottish Geology Trust

We will visit the coastal geology west of Burntisland where sediments of the Pittenweem Formation are exposed, with associated volcanics and tuffs (Dinantian to early Westphalian sills of the Lothians and Fife), that sometimes yield nice agates. The second part of the excursion will focus on the Sandy Craig Formation, looking at old quarries to the north of the town with historic sandstone and limestone workings.

Saturday 16 July, 10.30am to 4pm

South Queensferry to Hound Point (joint with Geological Society of Glasgow)

Leader: Richard Smith, EGS

Starting from the slipway opposite Hawes Inn, we will view the bridges then continue eastwards to Hound Point to examine the Carboniferous sedimentary and igneous rocks along the coast. High tea will be arranged in South Queensferry.

Wednesday Evening Excursions

Wednesday 4 May, 6-9pm

Petershill Quarry, Bathgate

Leaders: Katie Strang and Gary Hoare

We will examine the sedimentology and palaeontology of the SSSI at Petershill. The sediments of the Lower Limestone Formation are interbedded with basaltic tuffs and lava flows which make up the Bathgate Hills Volcanic Formation, and likely correlates with the Main and Mid Hosie Limestones.

Wednesday 18 May, 7-9pm

Aberlady, East Lothian

Leader: Mike Browne, EGS

We will examine the Carboniferous limestones of the Aberlady and Lower Limestone Formations. The two main units exposed are the Middle Longcraig Limestone and the Hurlet (Upper Longcraig) Limestone. Small faults influence the distribution of the strata. The excursion will commemorate the life of David McAdam, who loved the geology of East Lothian and served our Society for many years in key positions.

Wednesday 1 June, 7-9pm

North Berwick Law, East Lothian

Leader: Fiona McGibbon, EGS

This excursion will examine outcrops of phonolite in the quarry on the south flank of the Law and on the ascent to the summit. Variations in mineralogy and texture will be noted as well as jointing. The overall shape of the landform (crag and tail) will be demonstrated. Panoramic views of Fife, the Lothians and beyond await at the summit, as well as the remains of several episodes of occupation. Conservation and land management aspects of the Law will be discussed.

Wednesday 22 June, 6.30-9pm

Siccar Point/Pease Bay, Scottish Borders

Leader: Bob Gatliff, EGS

Siccar Point is described as the most important geological site in the world. It demonstrates an unconformity between two sets of strata and was used by James Hutton to support his world-shaking ideas of geological time and natural processes. We will look at the structure and sedimentology of the older Silurian and younger Devonian sediments. At Pease Bay we will see an excellent exposure of the Devonian sediments.

Wednesday 20 July, 7-9pm

Whinny Hill and Dunsapie Crag, Holyrood Park

Leader: Angus Miller, EGS

Explore the ash layers and basalt lava flows of the Arthur's Seat volcano, which form Whinny Hill in the east of Holyrood Park. We will climb to the summit of Whinny Hill, viewing various lava flows and some minor intrusions, and descend via Dunsapie Crag.

Monitoring Local Geodiversity Sites

Significant damage has been caused to the Petershill Reservoir Quarry in West Lothian by illegal fossil collecting. A recent inspection was carried out by a group from NatureScot, Scottish Wildlife Trust, Lothian and Borders GeoConservation (a committee of EGS), Scottish Geology Trust and other interested bodies, and a follow-up visit is now planned with the police. The site is an SWT Nature Reserve, a Site of Special Scientific Interest and Local Geodiversity Site. We would ask EGS members if they are in the Bathgate Hills area to visit the site, note any collecting activity and report back. Information boards are now in place on site hoping to curtail this recent criminality.

This incident reinforces the importance of regular monitoring of important local sites, and indeed it was a training session organised by Lothian and Borders GeoConservation that originally helped to highlight the issue. Another training session on Local Geodiversity Site monitoring is being held at Aberlady in East Lothian on Saturday 30 April, 10am to 1pm. Please contact Mike Browne (lbgeoconservation@edinburghgeolsoc.org) or Angus Miller (promotion@edinburghgeolsoc.org) for more information.



Site visit to assess damage caused by illegal fossil collecting. Photo: Mike Browne.

What next for Hutton's Section and the Radical Road?

Members who have visited Holyrood Park in recent years will be aware that the Radical Road has been closed due to rockfall from Salisbury Crags. Following a serious accident at the Castle Rock in 2018, Historic Environment Scotland (HES) re-assessed the rockfall danger at the Crags and other parts of Holyrood Park, and decided that the Radical Road is unsafe. While HES recognise the historical and geological importance of the route, and are keen to re-open it, potential solutions are expensive and progress has been painfully slow – in fact the only substantial change since 2018 has been to erect bigger fences!

Hutton's Section, the most important geological site in Edinburgh, lies at the south end of Salisbury Crags and is currently inaccessible behind, but tantalisingly close to, a fence. The site is now overgrown and graffiti has started to appear nearby. If you contact the Ranger Service in advance, they are happy to facilitate access through a locked gate in the fence.

EGS has coordinated a letter from various organisations and individuals, asking HES to reconsider the placement of the fence and allow free access to Hutton's Section, recognising that the rockfall danger of this part of the Crags is much less than at the cliffs to the north. There are wider issues to be addressed including access to the South Quarry, a popular rock climbing area, and the rest of the

Radical Road. In the short term action is required to at least make Hutton's Section accessible for the many visitors who will come to Edinburgh this summer in the footsteps of James Hutton, and will be most disappointed to find this famous section behind a fence. Members may consider making these points to HES, the press and local politicians.

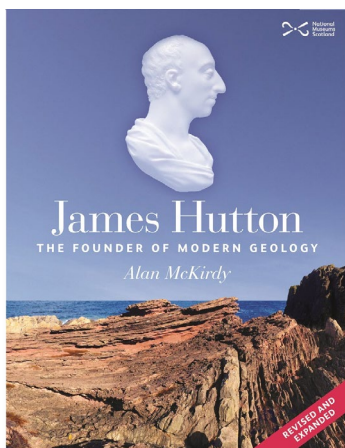


Access to Hutton's Section on Salisbury Crags has been restricted since 2018.

New publications

National Museums Scotland is publishing an expanded and revised edition of Alan McKirdy's "James Hutton: The Founder of Modern Geology" this spring. This is one of several initiatives in progress as we approach the tercentenary of Hutton's birth in 2026. We hope to have copies available soon for EGS members to buy through our website <https://www.edinburghgeolsoc.org/publications/geological-excursion-guides/> for £12 (a 20% discount from its £14.99 RRP).

All other books on our website are also available at a 20% reduction for EGS members, and they will remain postage-free to members until our evening lectures and book sales can fully resume at the Grant Institute.



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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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