——— THE ——— GEOLOGICAL SOCIETY — OF — GLASGOW

Registered Scottish Charity No. SC007013

President: Dr Brian Bell BSc (Hons) PhD

www.geologyglasgow.org.uk

April 2015 157/4

Summer field excursions inside!



10mm

A dinosaur fossil from Skye: a middle-posterior caudal vertebra from a small-bodied basal coelurosaur. See Topical Article. (Photo © N Clark)

In this newsletter:

- Dinosaurs from Skye
- April & May Lecture Programme
- Focus on Geodiversity
- Summer Excursion Programme: Details and Booking Forms

Welcome to Newsletter 157/4

This newsletter contains a lot of information, and very importantly, three forms for you to tear/cut out, complete and return if you're interested in either a day excursion, the residential excursion to Northern Ireland in mid-May or in making a contribution to Members' Night .

We do apologise for the late issue of all these forms; our new Day Excursion secretary, Roy Bryce, has worked wonders to get the day-excursion programme sorted in such a short time since taking over the reins.

Articles for the Newsletter:

We would like to include short topical article(s) in each Newsletter. If you have news of a recent event or discovery, opinions on geological matters, or wish to let people know about aspects of geology in the Glasgow area or the wider world, then please send your article to the Hon Secretary: sec@gsocg.org

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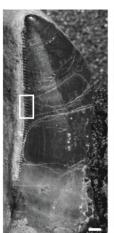
Topical Article

Could Scotland hold the key to the origins of the tyrannosaurs?

From: Theropod dinosaurs from the Middle Jurassic (Bajocian–Bathonian) of Skye, Scotland . Soon to be published in Scottish Journal of Geology

Authors: Stephen L. Brusatte and Neil D. L. Clark

Despite the diverse Middle Jurassic terrestrial vertebrate fauna found from the Isle of Skye, very little is known of the theropod (predatory) dinosaurs. The fossil remains have been limited to rare footprints of small to medium sized animals and a passing mention to a small fragment of a tooth. Two isolated theropod body fossils provide us with additional insight into the taxa present in northeastern Skye at this time. A tooth and a middle-posterior caudal vertebra from the late Bajocian-early Bathonian Valtos Sandstone Formation have been subjected to a variety of quantitative techniques to better determine their taxonomic affinities. Although they both remain classified as indeterminate Therapoda, the tooth most likely belonged to a megalosaurid, basal tyrannosauroid, or a dromaeosaurid; and the vertebra belonged to a small-bodied basal coelurosaur similar in size to Coelurus (~2 metres long, ~30 kg mass). Although these are only fragmentary remains, the footprints along with these two body fossils, demonstrate that both small and medium-to-large theropods existed in the Middle Jurassic of Scotland, and that some of these theropods may have included the earliest coelurosaurs and, perhaps more interestingly, some of the earliest tyrannosauroids and dromaeosaurids at about the time these two groups diverged.





A dinosaur tooth from Skye, probably from a megalosaurid. (Photo © N Clark)

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More Jurassic fossils from Skye: A paper on ichthyosaurs found on Skye - also co-authored by Neil Clark - has just been published in the online version of the Scottish Journal of Geology (https://doi.org/10.1144/sjg2014-018) and will appear in a forthcoming printed edition.

Lecture meetings

All lectures are held in the *Gregory Building, University of Glasgow, Lilybank Gardens, Glasgow G12 8QQ* (unless otherwise noted). Meetings commence at 7.30 pm.

Thursday, 9th April 2015

Dr Laura Evenstar, (University of Bristol)

Atacama Desert: the chicken or the egg scenario?



It has long been believed that the uplift of the Andes created a rainshadow effect forming the Atacama Desert, the driest desert in the world. New evidence suggests that the Atacama Desert is actually substantially older than this and may have played a huge role in creating such a large Andean mountain chain. This talk will explore why and when the desert formed as well as looking at some of the stranger things you find in the desert, like giant boulders and ancient Inca walkways.

Thursday, 14th May 2015

Members' Night

Short presentations by members of the Society. Members' Night is an opportunity for Society members to give short presentations or displays about their own interests and adventures in geology. If you are interested in presenting then please contact the Hon Secretary, Simon Cuthbert either by email or using the form at the end of this newsletter

One presentation that has been arranged will be by some participants in last year's 'Cruise of the Betsey' which the Society and many generous individual Members supported.



Website Update

New Excursion Itineraries

Jim MacDonald has now completed the three revised excursion itineraries for Arran and these are posted on the website, along with a news item giving a background to them.

The other nine sites featured on the Local Rocks page now also contain links to associated excursion itineraries. The



itineraries from the Glasgow and Girvan guide are used for eight of the sites (Corrie Burn, Dumbarton Rock, Fossil Grove, Aberfoyle, Ardmore Point, Balmaha, Ballantrae, Heads of Ayr)

Links to Geoconservation Leaflets

The pages for Dumbarton Rock, Fossil Grove and Ardmore Point also contain links to the relevant Strathclyde Geoconservation Group leaflets, while the Balmaha site page contains a link to the LLTNP leaflet. The Rouken Glen site page contains a link to the SGG leaflet.

Please contact web@gsocg.org with any questions or comments about the website.

New Honorary Members

Council have proposed that Dr Chris Burton and Dr Colin Braithwaite become Honorary Members of the Society in recognition of their contributions to the Society, and to the editing of the Scottish Journal of Geology over many years.

The proposal will be put formally to the April Meeting of the Society for approval.

Funding for Geological Expeditions and Other Initiatives

Council have recently discussed the options for helping support geologically-based expeditions. Recently the Society contributed towards the 'Cruise of the Betsey' and will also be contributing to this year's follow-up 'Testament of the Rocks'. The Society also helps with the running costs of the Strathclyde Geoconservation Group.

If you know of a suitable project that would benefit from some additional funding support then please contact the Hon. Secretary at sec@gsocg.org.

Summer Day Excursion Programme

Excursions 1, 2, 3, & 5 leave from the Gregory Building, Lilybank Gardens at the times stated – please check the synopsis for details.

Please note that a deposit is required for each excursion. The deposit is set at a level to recover the anticipated costs of the trip. In addition, please be aware that the balance of costs will be recovered by a small surcharge on the day of the excursion. For trip 5, the High Tea will be at your own expense depending on food selection. Members who take their own vehicles will be asked to contribute towards the cost of the excursion.

Please complete the form near the end of this newsletter, including details of who you would like us to contact in the event of an emergency. Applications will be acknowledged by email. The form should be returned to the Day Excursion Secretary. Alternativly email the day excursion secretary who will send out contact details for the form to be posted back.

Email: daytrips@gsocg.org

Date & Time	Excursion	Leaders
Saturday 4 th July Leaving Gregory Building at 09:00	1. Rosneath and Loch Long. This excursion deals with the upper Dalradian rocks immediately north of the Highland Boundary Fault where the grade of metamorphism is low and remnants of the rocks' sedimentary origins can be discerned. The trip will concentrate on the tectonic minor structures which are well displayed and show how they can be used to elucidate the regional structure. The rocks occur within the Tay nappe, one of the largest structures in the UK and are affected by the downbend fold near the Highland Boundary Fault, again a large structure which can be traced along the fault to the north-east. We shall see the progressive overprinting of earlier structures by those formed later and we will consider the processes operating at the grain level which allow the folds and cleavages to develop.	Dr Iain Allison

Saturday 25 th July	2. The Arrochar Igneous Complex.	Dr Chris
Leaving Gregory	The complex is one of a group of mid- to-late Silurian post-orogenic intrusions,	Burton
Building at 09:00	ranging in composition from granites to	
	gabbros, which cut the Southern highland	
	group. Together these intrusions form the	
	Southern Grampian suite of igneous rocks.	
	The Complex itself is crudely concentric in	
	form and composed of an outer pyroxene-	
	mica-diorite which encloses a quartz-diorite	
	within which is a granodiorite. The complex	
	is in the form of a narrow steeply-inclined body with a marked aureole of hornfelsed	
	Dalradian rocks. A quarry and numerous	
	stream exposures will allow us to view the	
	range of igneous types and accompanying	
	lamprophyric dykes, as well as the margins	
	of the intrusion.	
Saturday 8 th	3. Fife Coastal Path.	Emma Fairley
August	A walk between St Monan's and Ardross	
Leaving Gregory	to look at Carboniferous sedimentary	
Building at 09:00	rocks, plus volcanic intrusions and their relationships to the country rocks.	
	Relationships between the sedimentary	
	successions and the volcanics and	
	structures will be considered.	
Saturday 29 th	4. Field Skills Day.	Dr Simon
August	A mapping exercise at Loch Ardinning.	Cuthbert
Meet 10:00 hrs	Exposure mapping techniques, outcrop	
at SWT Loch	description, use of smartphone apps	
Ardinning Nature	and some geophysics. A new experience	
reserve,	for Mugdock veterans and the basics for beginners!	
Mugdock.	beginners:	
Saturday 5 th	5. Trearne Quarry, Fossil Hunting	Dr Al
September	A joint excursion with the Edinburgh	McGowan
Leaving Gregory	Geological Society. Looking for Brachiopods,	
Building at 10:00	Bivalves, Gastropods, Corals, Crinoids,	
	Blastoids, Polyzoan, Sharks teeth and	
	Trilobite carapaces in the marine	
	limestones and shale deposits of the Upper	
	Carboniferous in this working quarry. Followed by High Tea.	
	rollowed by fight lea.	l .

Residential Excursion 2015

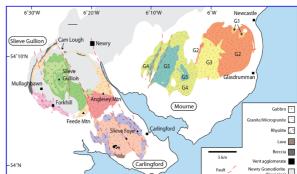
Exploring N.E. Ireland's Palaeogene Volcanoes

15th-18th May 2015

The British and Irish Palaeogene Igneous Province formed 61-55 million years ago as part of the North Atlantic Igneous Province and relates to the opening of the North Atlantic Ocean. The BPIP comprises both lava fields (like the Antrim Lavas) and central igneous complexes as seen at Slieve Gullion, Carlingford and Mourne. These igneous rocks are Ireland's most recent period of volcanism and represent the eroded roots of large volcanoes.

This trip will explore a range of volcanic features, from a caldera forming ring complex, to spectacular cone-sheets. We will see a variety of igneous rock types, including basalt, rhyolite, gabbro and granite and explore the textures that form during magma mixing. We will also look at some of the regional geology, including the local Silurian metasedimentary rocks, formed on the floor of the lapetus Ocean and deformed during the Caledonian Orogeny, when northern and southern Ireland became joined together. We will see the effect the hot magmas had on these rocks, baking and melting them around the intrusions.

The geology of NE Ireland showing the Carlingford, Gullion and Mourne Igneous Centres, as well as the Newry Granite and the Silurian sediments of the region. Map after The Geology of Northern Ireland.





The Mountains of Mourne "sweep down to the sea" (left); the rounded hills are a series of granites. The angular peaks of the Carlingford Igneous Centre (right) are formed of hard, mafic, gabbro.

To Book please use the Booking Form at the end of this newsletter or email the residential Excursion Secretary Katerina Braun restrips@gsocg.org

Fossil Five Poll Awards

Hunterian Museum 24[™] March 2015

The Fossil Five Poll has been one of the Scottish Geodiversity Forum's main initiatives for 2014-15. It was proposed by Forum member Al McGowan as a follow-on for a national poll that selected Scotland's Big 5 - iconic wild animals, but all extant species! We wanted to highlight the range of fossil animals and plants found in Scotland, representing a wide range of ages and some very important and beautiful specimens.

A group of Forum members chose a short list of 16 fossil groups for the poll, and the public were asked to choose their favourite five via the scottishgeology.com website. Science writer and Forum member Lara Reid was instrumental in preparing brief, accessible descriptions of each group and in promoting the poll widely via twitter.

Scotland has amazing fossils, with a huge variety of different animals and plants stretching back more than a billion years. From giant sea scorpions and dinosaurs to delicate graptolites, Scotland has gathered a fantastic diversity of fossil types as it has travelled across the globe over hundreds of millions of years. Many of these species are unique to Scotland, and new finds are still being made that close important gaps in the fossil record.

Several hundred people have taken part in the poll, and the nation's five favourite fossils were celebrated in the Fossil Five Awards at the Hunterian Museum on Tuesday 24 March. City of Glasgow Bailie Phil Greene presented the Awards to champions of the top five fossil groups. Also present was Sandra White, MSP whose Kelvingrove constituency takes in Victoria Park where the Fossil Grove is situated. She was proud to acknowledge the fact that Glasgow has the only building in the world dedicated to protecting fossil trees in situ.

Scotland's five favourite fossil groups represent the diversity of fossils found across Scotland, including many of historical and scientific importance. You can read more about all these groups, and other important fossils in the scottishgeology.com website http://www.scottishgeology.com/.

The Fossil Five Awards go to:



Baillie Phil Greene and Sandra White MSP with the Fossil Tree certificate

- **1. Devonian Fish:** Fossils from the Devonian 'Age of Fishes' are found across Scotland, recording a time when life flourished in rivers and lakes.
- **2. Jurassic dinosaurs of the Isle of Skye:** Fossilised footprints and bone remains found on the Isle of Skye show that rarely-preserved Middle Jurassic dinosaurs once roamed there.
- **3. Early tetrapods:** The search for the missing link between amphibians and land-dwelling reptiles has been greatly enhanced by fossil discoveries in Scotland.
- **4. Trilobites:** Perhaps one of the most recognisable fossils, slater-like trilobites of all different shapes and sizes can be found across Lowland Scotland.
- **5. Fossil trees:** During the late Carboniferous period around 310 million years ago, the Scottish Lowlands were covered in dense tropical rainforest.

Both The Herald and The National newspapers ran features on this event with The National highlighting Hugh Miller's work on Devonian Fossil fish. Martin Gostwick, secretary of The Friends of Hugh Miller is reported as stating "We will be celebrating this honour on his behalf at his museum in Cromarty, where some of his most striking finds are displayed"

Whats in a Name? Geodiversity and Geoconservation

What is the difference between the Strathclyde Geoconservation Group, the Scottish Geodiversity Forum and the Charter?

Strathclyde Geoconservation Group (SGG) primarily work to promote geology to the general public by leaflets and workshops and to maintain contact with local authorities to try and ensure that sites of geological interest are identified in the local plan, in a hope that this will give them some degree of protection. The reason for using the term 'geoconservation' is in part to reflect this and also that the parent body on changing their name from UKRIGS became GeoconservationUK.

<u>The Scottish Geodiversity Forum (SGF)</u> is a collection of over 200 people from a large variety of backgrounds who are all interested in preserving and promoting the geodiversity of Scottish rocks, minerals, fossils, soils and landscape. (see next page)

<u>The Geodiversity Charter</u> has been drawn up by a subgroup of SGF with representatives from the Forum, BGS, SNH, Scottish Government and at present VisitScotland. Over 50 organisations have signed up to the Charter including local councils, universities and a number of bodies involved in the Scottish landscape (more information on next page).

Scottish Geodiversity Forum

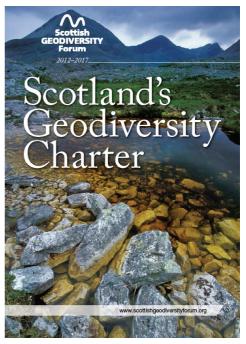
Members may be aware of a relatively new and active organisation on the geology scene in Scotland in recent years, the Scottish Geodiversity Forum. I'm often asked what "Geodiversity" means, so here's a stab at defining it:

"Geodiversity is the variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them. It is the link between biodiversity, landscape, people and their culture."

As any geologist will tell you, all this is important because it provides the foundation upon which plants, animals and people live, a source of basic raw materials, and a vital component of our cultural and built heritage. Scotland's geodiversity is a unique teaching and scientific resource, fundamental to our understanding of issues such as climate change and sea level rise.

The Forum aims to promote Scotland's geodiversity, to widen its profile and to influence national and local policies. It is the Scottish national forum for geoconservation groups, geoparks and other related organisations, and interested individuals. It promotes the role and value of geodiversity in education, community involvement and health, the development of tourism and the wider economy. Membership of the Forum is open to any constituted organisation or individual that support the aims of the Forum. Several members of the Society and its Council are active in the Forum and its Executive Committee.

A key priority of the Forum is the implementation οf Scotland's Geodiversity Charter, launched in June 2012. It was drawn up by the Scottish Geodiversity Forum with support from Scottish Government. the Scottish Natural Heritage, the British Geological Survey and GeoConservationUK. The 57 signatory organisations of the Charter have committed to maintain and enhance Scotland's geodiversity and recognise the contribution it makes to many aspects of society.



Scottish Geodiversity Forum AGM

The Forum held its AGM on Tuesday 24th March. The following account of some recent activities is extracted from its annual report:

The Forum made good progress in 2014 of furthering our aims of widening the profile of geodiversity and influencing national and local policies. We have seen lively engagement by Forum members in projects and events supported the resurgence of Scotland's three Geoparks, and worked to promote and implement Scotland's Geodiversity Charter. A further six signatories were added in 2014, bringing the total to 57 organisations that support the Charter.

The Charter Working Group, which comprises Forum members with representatives of the Scottish Government, the British Geological Survey, Scottish Natural Heritage and Visit Scotland, focused on tourism in 2014. We published a short paper on tourism (available from the Forum website), highlighting the potential of Scotland's geoheritage to increase visitor numbers and enhance the visitor experience.

Visit Scotland are now doing more to promote Scotland's three Geoparks on their website, and are keen to take forward further initiatives.

The Forum and Scottish Natural Heritage are planning an important Sharing Good Practice event about geodiveristy and tourism on Wednesday 25 November 2015.

The Charter has a proposed five-year span, taking us to 2017 and the Charter Working Group has started to explore with the Scottish Government and other agencies the process for following on from the Charter.

We have supported the efforts of the Geological Society of London, through the Geoconservation Committee, to change the culture of rock sampling and coring for research, which sometimes is done indiscriminately and without permission at important outcrops. The Geological Society has put ethical rock sampling at the core of their Code of Ethics for scientific publication, requiring all authors to confirm that rock samples used for research have been collected ethically. The Forum has prepared and consulted on a draft Ethical Rock Collection Policy for Scotland, which will draw together and publicise existing policy and advice.'

For more details of the Forum's activities and aims, and how to join in, please visit http://scottishgeodiversityforum.org.

More information on the Charter can be found at: http://scottishgeodiversityforum.org/charter/

If you are interesting in getting involved in any aspect of this important area please contact Margaret Greene or Simon Cuthbert

Notices

Subscriptions & Membership

May we please encourage those few who have so far overlooked paying a subscription, or who have paid a subscription that was not updated to the increased rates, to renew as soon as possible. Rates are as follows:

Ordinary Membership	£25	Includes Scottish Journal of Geology
Associate Membership	£12.50	Eligible to those over 60, or spouses of
		Ordinary Members, or members of the
		Edinburgh Geological Society.
Junior Membership	£6.25	Eligible to those under 25, full time
		undergraduates, or recent (4 years)
		graduates. Scottish Journal of Geology is
		available on payment of a £6.25 supplement.

If you require to set up a Bankers Standing Order (which is the Society's preferred arrangement) as your routine method for future payments (payment for the next session's membership falls due on the 1st October), please notify the Membership Secretary, who can provide you with the appropriate form to arrange this with your bank. Alternatively you can download this form from the membership section of the Society's website and follow the instructions given there.

If you need to top up your membership subscription to the current rates you can do this via the address given below.

Any queries regarding the above should be addressed to the Membership Secretary, e-mail: gsgmemsec@ntlworld.com

New Members

We extend a warm welcome to the following new members:

Ms E Pakalnina Glasgow

Ms TD Popa Glasgow

Ms S Houston Glasgow

Mr C Camplisson Loch Winnoch

Mrs M McCallum Milngavie

Courses at the Glasgow University Centre for Open Studies

www.gla.ac.uk/courses/openstudies

Geology in the field – Dr. Mike Keen, Dr. James MacDonald, Dr. Alistair McGowan and Dr. Iain Allison. Field studies and examining rocks in the field are the basis of all geology. We will examine the geology and geomorphology of a series of areas within easy reach of Glasgow. Following an introductory meeting when plans and venues will be discussed, there will be five full-day excursions by private car. Walking will generally be easy, and no prior knowledge of geology needed.

NOTE: First meeting 10.00-13.00 Wednesday 22 April 2015.

Society Bookshop

The Society's bookshop stocks a large selection of geology-related books, maps and pamphlets. It is open after the lecture meetings to allow members to browse and make purchases. Selected titles from the bookshop's stock are listed on the society's website at www.geologyglasgow.org.uk/bookshop/. Most of the books in this list can also be purchased from Amazon.co.uk through the website's customised Amazon bookshop. If you want to purchase a book that is not on the list, or any other item that Amazon sell, you can help the society by making your purchase from the Amazon home page. Links to the customised Amazon bookshop and the Amazon home page can be found on the Bookshop menu and the Bookshop page.

The Geological Society of Glasgow is a participant in the Amazon EU Associates Programme, an affiliate advertising programme designed to provide a means for sites to earn advertising fees by advertising and linking to Amazon.co.uk. Each purchase that takes place through the customised Amazon bookshop or the link to the Amazon home page generates a commission of approximately 5% of the sale price (excluding VAT) for the society.

Further information on the bookshop is available from the society's publications officer: books@gsocg.org.

Events from other geological societies

Edinburgh Geological Society www.edinburghgeolsoc.org

Lecture Programme for Spring 2015 is now finished. Members are welcome to attend excursions organised by the Geological Society of Edinburgh where spaces are available. Further details from their web site. Members are reminded they are eligible to join the Edinburgh Society as Associate Members.

Aberdeen Geological Society www.aberdeengeolsoc.org.uk

2nd April. Annual General Meeting, Rock Auction and Member Travelogues

Highland Geological Society www.spanglefish.com/highlandgeologicalsociety

22 April. Dr Alan Crane, University of Aberdeen. 'Aotearoa: A Plate Margin Journey'.

Westmorland Geological Society www.westmorlandgeolsoc.co.uk

See website for spring/summer excursions

Dr Simon J Cuthbert, Honorary Secretary, The Geological Society of Glasgow,

e-mail: contact@gsocg.org

Booking Form for Day Excursions 2015

A deposit is requested for each chargeable booking. Since coach hire is required this deposit is non-returnable. **No bookings will be accepted without the deposit.**A further small levy may be collected on the bus on the day of each excursion.
All cheques should be made payable to: **The Geological Society of Glasgow**.
Please email the day excursion secretary to get an email version of the application form and contact details to post the form back. daytrips@gsocg.org

Date	Excursion	Tick to apply	Deposit amount	Deposit enclosed
Saturday	Rosneath			
4 th July			£15	
Saturday				
25 th July	Arrochar		£15	
Saturday				
8 th August	St Monan's		£19	
Saturday	Ardinning Nature		£4	
29 th August	Reserve.		(excluding	
			travel)	
Saturday	Trearne Quarry		£15	
5 th September				
Total number of	trips		Total enclosed	

EmailAddress		
Emergency Contacts		
In case of an emergency while you are on the excu	,	,
Name of contact	<u>Relationship</u>	Phone numbers
Please complete this dec I confirm that I have read safety.	laration:	Society's recommendations on field
Signed	15	Dated



Safety in the Field

Although geological fieldwork is a pleasurable activity, by its nature it may involve some risks. These can be minimized by observing sensible precautions. It is important that everyone undertaking fieldwork is alert to both the general and specific risks and can take responsibility for their own safety and for the impact this may have on the safety of others.

A general *Code for Geological Fieldwork* is published by the Geologists' Association.

Field Excursions organized by the Society are conducted on the understanding that members and guests are aware of their general responsibilities. For its part, the Society, through excursion leaders, will issue specific warnings where conditions differ from those likely to be encountered by an active person of normal health during a weekend ramble in the hills. Participants are specifically asked to:

- (a) Inform the party leader in advance of the field excursion, in confidence, of any medical condition which may have a bearing on their own safety or on that of other party members.
- (b) Observe all safety instructions given by the party leader. Inform the leader if they wish to leave the party and inform him/her immediately of any illness or injury.
- (c) Provide themselves with warm and waterproof clothing (brightly coloured if possible), strong waterproof boots that provide some grip, and carry a small personal first-aid kit.
- (d) Carry a survival bag, whistle, spare clothing, and survival rations when working in remote or mountainous regions.
- (e) Wear a hard hat whenever there is a risk from falling objects. This is obligatory when visiting quarries, mines, building sites or road sections under construction and, in the interests of safety, members may wish to obtain their own.
- (f) Always wear impact resistant safety goggles or spectacles when hammering tough or splintery rocks, or using chisels. Never use a second hammer as a chisel. Beware of standing too close to others using either.
- (g) Take special care on steep slopes (e.g. scree slopes, cliffs and quarries); on muddy slopes and slippery shore-sections, and when working on roadside cuttings or exposures, particularly when construction is in progress. Be alert when crossing roads and railways, it is easy to get distracted. Check the times of tides, remembering that high winds may make them higher than you expect, and ensure that you are familiar with the exit points from coastal sections.
- (g) Obtain the permission of landowners or factors before entering property. Permission to collect samples may be required and special permits are necessary on Sites of Special Scientific Interest (SSSI's).
- (h) Avoid overhanging or unstable rock faces, especially during thaw conditions after a cold spell or after heavy rain. This is particularly important in quarries but also on some coastal cliffs where large sections may fall without warning.

Name(s):			
Address:			
Landline Tel. No.			
Mobile No.			
Email:			
Accommodation: Please tick one box	Shared twin room (£50 per person per night for B&B and dinner)	To share with: Estimated arrival time:	
	Shared double room with your partner/spouse (£50 per person per night for B&B and dinner)	Estimated arrival time:	
	Tick this box if you would li accommodation booking to Monday Night (14 th /18 th Ma	include Thursday and/or	
	I will make my own arrange	ments for accommodation.	
Dinner: Please tick	I will have dinner with the group on Friday evening (Cost included in room rate quoted above).		
one box	I will have dinner with the group on Saturday evening (Cost included in room rate quoted above).		
	I will have dinner with the g (Cost included in room rate		
	I will make my own arrange		
Please tick one box	I would like a packed lunch from the hotel for Saturday – (£5 consisting of sandwiches, fruit, crisps, homemade cake and a bottle of juice/water)		
		from the hotel for Sunday – es, fruit, crisps, homemade	
	I would like a packed lunch – (£5 consisting of sandwich cake and a bottle of juice/w	from the hotel for Monday hes, fruit, crisps, homemade vater)	
	I will make my own lunch a	•	
Travel: Please tick one box	I would be happy to take my car to Ireland and give a lift to passengers to/from Ireland. State No. Passengers:		
	I would be happy to take my car to Ireland and give a lift to passengers on the field days. State No. Passengers:		
	I would prefer not to take n required. Ideally I would pr someone else.	efer to take a lift from	
	I would like a lift in someone else's car.		
	I will make other travel arra (Please specify)	angements.	



Do you have any speci- Please specify.	al dietary requirements for breakfast/dinner/packed lunch?	
Emergency Contact De	etails: whilst I am on the excursion the Society may contact the	
following person(s):		
Name:	Telephone:	
Name:	Telephone:	
Membership	I/we am/are a member/s of the Geological Society of	
Please tick	Glasgow	
Declaration:		
I/we confirm that I/we have read and will comply with the Society's guide to field safety (provided with this booking form). I enclose a cheque (payable to Geological Society of Glasgow) for the deposit of £30.00 per person.		
•	Print name	
Date		
Please note that the later you cancel the less likely it is that you will get all or part of your deposit back. Once the society has passed on your deposit to the hotel it is very unlikely that it will be refundable. If two people are sharing a room and one person cancels, it may in fact be necessary for that person to pay the full balance. You are strongly advised to buy travel insurance to cover you for any such losses.		
When completed, plea	se send this form and the deposit as soon as possible to:	
restrips@gsocg.org		

Members' Night: Request to contribute

Thursday 14th May 2015:

Please use this form or email the following information to the Hon. Secretary

Title of contribution:		
Name		
Address		
Telephone/Fax/e	mail	
I wish to make a p□ Oral presenta□ Bench-top dis□ Wall-mounted	·	
maximum of 15 r requests are rece	I presentation speakers are requested to keep their talks to a minutes including question time. In the event that more than four ived for oral presentations GSG Council will select those to be rogramme; successful requests will be informed by e-mail or post by	
	s form by <i>Friday 17th April</i> to: pert, Honorary Secretary, g.org	