

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

Registered Scottish Charity No. SC007013

**President: Dr Brian Bell BSc(Hons) PhD**  
[www.geologyglasgow.org.uk](http://www.geologyglasgow.org.uk)

**November 2014**

**157/2**



*Glencoe in winter. Image from the Society's website, which has just been updated with a new local rocks section complete with interactive geological map. Please Explore! More details on page 5.*

**In this Newsletter:**

- ❖ *AGM and lecture for December (AGM papers pages 12-26)*
- ❖ *January lecture*
- ❖ *Reflections on Hugh Miller and the Sgurr of Eigg*
- ❖ *New website updates*

**Lecture meetings:**

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

**Thursday 11th December****Annual General Meeting:**

The agenda and papers for the AGM can be found at the end of this Newsletter. The AGM business will be brief, but is an important event in the Society's calendar so we look forward to seeing a good number of members at the meeting. The AGM business and lecture will be followed by a social with wine, soft drinks and snacks.

**Lecture:**

**Dr Jim MacDonald** (*University of Glasgow*)

**A journey through Geological time in Namibia**

Namibia, the second largest country in Southern Africa, has a population of only about 2½ million. Half the land is desert, the Namib Desert on the coast and inland the Kalahari that stretches eastwards into Botswana. Much of the rest of the country is scrub punctuated by rocky outcrops – a great place for the study of Geology. This 2,500 km long trek documents episodes in the geological history of Namibia from Mesoproterozoic times to the present day. We will visit the Fish River Canyon, second deepest on Earth, where the metamorphosed rocks of the Namaqualand Complex are succeeded unconformably by the Namibian succession ranging in age from 1000 Ma to Cambrian by which time the supercontinent of Gondwanaland had been assembled. Travelling northwards a landscape dominated by the Great Escarpment bears witness to the dominance of terrestrial erosion throughout much of the Phanerozoic Eon. At the Giant's Playground huge residual boulders represent what remains of a once more widespread cover of Karoo dolerite. We will climb the largest sand dunes in the world in the Namibian Desert on our way to Walvis Bay on the west coast. Farther north in Damaraland, Brandberg Mountain forms the remains of a huge central volcano active at about 130 Ma at the end of the activity of the Etendeka flood basalts that marked the opening of the South Atlantic and the beginning of the separation of Africa and South America. Much of Damaraland is dominated by the Cenozoic sedimentary rocks. These have been subjected to episodes of desert conditions alternating with intense fluvial erosion to produce a landscape resembling that of the American Southwest. Here the culture of the local Damara tribe is preserved in rock art and in a living museum hidden among spectacular outcrops of syenite. Finally we reach the Etosha National Park on the northern margin of the Etosha Pan, a vast expanse of evaporites margined on its southern edge by a series of water holes that sustain an impressive fauna including great herds of zebra, antelopes, ostriches and elephants, prides of lions and many other species.

**January meeting:****Professor Zoe Shipton** (*University of Strathclyde*)**UK shale gas: Frack on, frack off or frack well?**

In the UK, public concern about hydraulic fracturing for shale gas (fracking) was triggered by low magnitude earth tremors induced by exploratory activities in Lancashire in April 2011. The resulting embargo on fracking for shale gas was lifted by DECC in December 2012. Campaign groups argue that shale gas extraction could produce significant environmental damage, whereas proponents of the shale gas industry argue that an indigenous source of UK gas will enhance energy security and may result in falling household energy bills. Indeed it is now possible to buy "Keep calm and frack on" T-shirts on the web! In this talk I will argue that it should be possible to "frack well" - i.e. extract potentially considerable shale gas resources in the least environmentally damaging way. A Royal Society and Royal Academy of Engineering working group report on "Shale gas extraction in the UK: a review of the scientific and engineering evidence" investigated the major risks associated with fracking and asked how these risks can be effectively managed. The report found that the health and safety and environmental risks associated with fracking for shale gas can be managed effectively in the UK as long as operational best practices are implemented and enforced through legislation. The risk of groundwater contamination (both from natural gas and water and from fracking fluids) via hydraulic fractures is very low. Seismicity is also a very low risk, and where it does occur is likely to be at magnitudes less than those regularly felt near abandoned coalfields. Ensuring borehole integrity must be the highest priority to prevent groundwater and surface contamination. The joint academies report recommended implementing robust monitoring systems to address uncertainties in the subsurface process and to strengthen public confidence. If we can convince the public that it is possible to "frack well", shale gas has a place as a bridge between traditional, declining fossil fuels and renewables.

Please note that the date will be **15<sup>th</sup> January and not 8<sup>th</sup>**, as it would be normally.

**February Meeting:****Dr John Winchester** (*Keele University*)**European accretion in the Palaeozoic: recognition and origins of accreted terranes** (full details will appear in the February Newsletter).**News and topical articles:****Following the Cruise of the Betsey – GSG sponsored young Earth Scientist:**

The Society sponsored **Rosie Bradshaw**, a final year Earth Science student at the University of Glasgow, to join the crew of Sail Training Vessel Leader when it

followed the voyage of Hugh Miller through the Small Isles in September (see Newsletter 157-1). Here, Rosie reflects on her experiences and impressions from the trip, focusing on a walk to An Sgùrr on the Isle of Eigg (the walk was led by Angus Miller, Chair of the Scottish Geodiversity Forum):

For me, the Sgurr of Eigg encompasses the whole experience of the Cruise of the *Betsey*. Hugh Miller understood that the landscape of Scotland was not purely a physical feature, but is made up of stories and people too. For every geologist who has looked upon a mountain and seen an extinct volcano, many, many more have looked upon it and seen a sleeping giant. The first stop on our walk to the Sgurr was Uamh Fhraing (the Massacre Cave) where, in 1577, nearly all the inhabitants of Eigg were killed by the McLeods of Skye. As Miller pointed out in *The Cruise of the Betsey*, one of the reasons that the massacre was such a tragedy was that generations of aural history and folklore were lost forever.



Young Earth scientists Mairi Gilmour, Derry Wilkinson and Rosie Bradshaw on Sail Training Vessel *Leader* in the Firth of Lorne. Mairi was sponsored by the Friends of Hugh Miller. Derry and Rosie by the Geological Society of Glasgow. Photo by Simon Cuthbert.

The Sgurr of Eigg has been at the centre of geological debate since the days when Hugh Miller first looked upon it. It has been interpreted as both a sill and a lava flow, and the most recent and well-accepted interpretation is that a lava-like ignimbrite filled in a valley during sustained pyroclastic flows. The Sgurr is the infill of the valley, but most of the valley walls have long been eroded away, being made up of softer rock. Miller's own musings on the subject were not dissimilar to what we think today, but the Sgurr also conjures up other images. Miller saw the pitchstone columnar pillars as the ribs of a ship, and saw the architect behind the masonry. 170 years later our resident artist on the Cruise, Richard Bracken of Room13 International would see the form of the pillars and

their similarity to the design of the mast bases of the Leader and be inspired to create an art installation that will hopefully be realised next Summer. It's going to be really cool, so definitely keep looking on the Cruise of the Betsey website for information on that.

During our walk to the Sgurr we visited the Recess, where Miller found fossils of *Pinus eiggenis* right below the pitchstone. So another connection that I made on the Isle of Eigg was between the Palaeogene pine forest in the valley where the Sgurr now resides, and the residents on Eigg before the massacre. Both would have been places of normal, quiet lives cut suddenly short by events out of their control.

What I learned on my time on the Leader is that, secretly, all disciplines are the same; they all tell a story. The *Cruise of the Betsey* inspired everyone to write stories in media that were not necessarily those familiar in their own professions. For myself, I joined my fellow young earth scientists in writing a sea-shanty, so when you meet me I want you all to sing along!

Rosie, along with our other sponsored crew-member Derry Wilkinson, will make a presentation to the Society at Members' Night in May. They have already given very well received slideshows for the Scottish Geodiversity Forum annual meeting and the Edinburgh branch of the University of the Third Age geology group. For updates on follow-up activities on the Cruise of the Betsey project including plans for another voyage in 2015, see the website <http://cruiseofthebetsey.wordpress.com>, the Facebook page (<https://www.facebook.com/cruiseofthebetsey2014>) and Twitter feed (<https://twitter.com/BetseyCruise14/media>). For more information on Room13's art works see (<http://room13international.org>).

### **Updated website launched:**

The society's website has been updated. There are many small improvements, but two major changes. There is a new Local Rocks section, containing a beautiful geological map of the extended Glasgow area prepared by Emma Fairley. This map contains pins providing links to descriptions of selected geological sites in the area. Below the map there are two panels. The left panel contains links to new articles about minerals, rocks and fossils, while the right panel contains summaries of all the sites marked by the pins on the map. The website is also now more compatible with mobile devices. In particular, the image rotators on the Home page and the Geoconservation pages now display properly on tablets and smartphones. You can see all the changes for yourself at <http://www.geologyglasgow.org.uk>. Many thanks to the Society's webmaster Bill Gray and website co-ordinator Emma Fairley for all their hard work in getting this update up and running.

*If you would like to offer an article of news or topical interest for the Newsletter, please contact Hon Secretary Simon Cuthbert ([contact@gsocg.org](mailto:contact@gsocg.org)).*

## **Notices:**

### **Scottish Journal of Geology:**

This is a reminder that Geology Society of Glasgow members who are eligible to receive the paper version of the Scottish Journal of Geology now have free online access to the full content of the journal, including back issues, via the Lyell Collection. This involves a one-off, free subscription activation where you select a user name and password. The steps to setting up access to the Lyell Collection are as follows:

- 1) Go to the subscription activation page [www.lyellcollection.org/cgi/activate/ibasic](http://www.lyellcollection.org/cgi/activate/ibasic) and enter your subscriber ID number. This is your four-digit GSG member number prefixed with the letters GSG; for example, if your GSG membership number is 1004 then your subscriber ID is GSG1004. You can find your GSG member number from the address label of a recent SJG or billet mailing, or you can contact the Membership Secretary at [gsgmemsec@ntlworld.com](mailto:gsgmemsec@ntlworld.com).
- 2) Select a username and password that you will use to login and view the journal. Once you've completed the subscription activation, you will be able to access the SJG site at [sjg.lyellcollection.org](http://sjg.lyellcollection.org) or using the link from the main Lyell Collection webpage [www.lyellcollection.org](http://www.lyellcollection.org).

If you have any problems with access to the Lyell Collection, please contact the Hon. Secretary, Simon Cuthbert.

### **Membership subscriptions:**

Thank you to all those members who have renewed their subscriptions for the current Session (157). A separate reminder note accompanies this newsletter for those who have yet to renew their subscriptions or who have still to update their bankers order to take account of the subscription increase payable from the start of Session 157. If you receive your newsletter by e-mail you will have been sent a reminder of a missed or under payment by separate-mail.

If you wish to set up a Bankers Standing Order as your routine method for future payments (**which is the Society's preferred arrangement**), please notify the

Membership Secretary. A form can be sent to you electronically or by post.

Annual subscriptions for Session 157 were due from **1 October, 2014** at the following rates:-

- **Ordinary Membership** (Including Scottish Journal of Geology): **£25**
- **Associate Membership** (available to those over 60, or spouses of Ordinary Members, or members of the Edinburgh Geological Society): **£12.50**
- **Junior Membership** (available to those under 25, or full time undergraduates, or recent (4 years) graduates): **£6.25**

Note that the Scottish Journal of Geology is only sent to Ordinary Members and to those Junior members who pay an annual supplement of £6.25.

Cheques, made payable to **Geological Society of Glasgow**, should be sent to the Membership Secretary unless a Bankers Standing Order has been signed. Please indicate the Member for whom payment is being made if this is not apparent from the cheque (e.g. a cheque from 'Anyone' paying for a member 'Someone else').

**Address changes:** The Society maintains the only mailing list of Society members. Labels for all mailings, including the Scottish Journal of Geology are produced by the Society from Society records. Any changes of address should be sent by post or e-mail or communicated by telephone to the Membership Secretary.

**Membership Card:** The membership card, which you will have received with the previous newsletter, not only gives information on the lecture programme but can also be used to provide proof of membership when necessary. To validate it you need to add your name and reference number, which is printed on the right of the mailing label used for the newsletter. The number will also be repeated on the label for the next newsletter or can be obtained from the Membership Secretary by phone, e-mail or post. When joining the **University Library**, proof of identity (e.g. photo driving licence, passport, travel card, matriculation card for an Adult Education Class) will also be required.

**Membership Secretary:**

Dr. R A Painter

e-mail:- [gsgmemsec@ntlworld.com](mailto:gsgmemsec@ntlworld.com)

**New Members:**

We extend a warm welcome to the following new members:-

Mr R A Fouracre	Stirling
Mr A Leggatt	Fortrose
Mr A M Jack	Ayr
Mr G D Devoy	Motherwell
Mr L Brady	Stirling
Mrs J McBurney	Dunoon

**Bookshop:**

The Society's bookshop stocks a large selection of geology-related books, maps and pamphlets. It is open to browse and make purchases after the winter lecture meetings. Selected titles are listed in the Society website (<http://www.geologyglasgow.org.uk/bookshop/bookshop/>). Most of the books in this list can also be purchased from [www.Amazon.co.uk](http://www.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 using the link from 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](http://www.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 is available from GSG Council Member Bill Gray ([books@gsocg.org](mailto:books@gsocg.org)).

**Courses at the Glasgow University Centre for Open Studies:**

<http://www.gla.ac.uk/services/centreforopenstudies/>

- ***The Geology of Mars***. Simon Cuthbert. Saturday 7<sup>th</sup> February 2015, 09.30-16.30 (1 meeting).
- ***Geology in the field***. Mike Keen, Jim MacDonald, Alistair McGowan and Iain Allison. Wednesdays 10.00-13.00 from 22 April 2015 (Introductory meeting + 5 full day excursions).

**Events from other geological societies:****Edinburgh Geological Society**

Lectures are held in the Grant Institute of the University of Edinburgh, West Mains Road. See <http://www.edinburghgeolsoc.org> for full details:

10<sup>th</sup> December: Fellow's Night and Social Evening:



John Faithfull - "*The romantic rogue: Rudolf Raspe and his geological work in Scotland*"

Mary Leitch - "*Paraffin Young*"

Joyce Gilbert - "*The Cruise of the Betsey: a voyage of discovery*"

Lilian D'Mello - "*A Geological Trip to Hawaii*"

14<sup>th</sup> January: Peter Worsley (University of Reading) *The BGS glaciological expedition to Arctic Norway 150 years ago*. Joint lecture with the Geological Society of Glasgow.

28<sup>th</sup> January: Stuart Clarke (Keele University) *Title tbc*

11<sup>th</sup> February: John Smellie (Leicester University) *Antarctic volcanism*

25<sup>th</sup> February Diarmad Campbell (BGS) *Making better use of the ground beneath our cities; the Glasgow experience is that it helps to ASK...* Joint lecture with the Mining Institute of Scotland (to be held at the BGS, Murchison House)

11<sup>th</sup> March: Rob Strachan (University of Portsmouth) *New light on the Caledonides of the Shetland Islands*. Clough Medallist Lecture.

25<sup>th</sup> March: Stuart Monro (University of Edinburgh) *A geological future in Scotland?*

### **Aberdeen Geological Society**

Lectures take place in Lecture Theatre 1 of the Meston Building, Kings College, University of Aberdeen unless otherwise stated, at 6:30pm (see <http://www.aberdeengeolsoc.org.uk/> for up-to-date details).

29<sup>th</sup> January: Dave Hodgson (University of Leeds) *Surprises During Rises: Controls on the Timing of Sediment Dispersal Beyond the Shelf-Edge*.

5<sup>th</sup> February: Nick Rawlinson (University of Aberdeen) *Intra-Plate Volcanism: A Seismic and Geodynamic Perspective*.

26<sup>th</sup> February: Roy Starkey *Minerals and Gems of the Cairngorms*.

19<sup>th</sup> March: Ben Kneller (University of Aberdeen) *Sedimentation in Blue Water*.

2<sup>nd</sup> April: *Annual General Meeting, Rock Auction and Member Travelogues*

### **Highland Geological Society:**

Meetings take place at 7.30pm in Room 145/146 at Millburn Academy, Inverness unless otherwise indicated. See <http://www.spanglefish.com/highlandgeologicalsociety/index.asp> for full details:

10 December: Peter Reynolds, HGS & Julie Corcoran (Highland Library Services). *The HGS Library Collection*.

28 January: Dr Sue Beardmore, Curatorial assistant (Elgin Museum) *Letters from America: vertebrate palaeontology in Utah, USA*.

25 February: Annual General Meeting and talk: Peter Reynolds (HGS) *How thin sections are made*

18 March: Paul Monk (HGS) *50 years in amateur geology: collections, fieldtrips and passion*.

22 April: Alan Crane (University of Aberdeen) *Aotearoa: A Plate Margin Journey*.

### **Westmorland Geological Society:**

Meetings are held in the Abbot Hall Social Centre, Kendal and start at 8 pm (unless otherwise stated). For full details see <http://www.westmorlandgeolsoc.co.uk>

17<sup>th</sup> December *Members' Evening and Jacob's Join* (NB start time 7:30pm).

21<sup>st</sup> January: Dr Carol Cotterill (BGS Edinburgh) *Ongoing work in the Windermere area*

18<sup>th</sup> February: AGM and Presidential Address by Dr Emrys Phillips

18<sup>th</sup> March: Dr David Penney (Univ. of Manchester) *Spiders in Amber* (NB start time 7:45pm)

# Geological Society of Glasgow

## Annual General Meeting

### Thursday 11th December 2014

#### Agenda

1. Welcome
2. Apologies
3. Minutes of the Annual General Meeting of Session 155 held on Thurs 12th December 2013
4. Reports
  - a. *President's report*
  - b. *Meetings Secretary's report*
  - c. *Saturday Excursions report*
  - d. *Residential Excursion report*
  - e. *Library report*
  - f. *Publications Officer's report*
  - g. *Proceedings Editor's report*
  - h. *Scottish Journal of Geology Editors' report*
  - i. *Website report*
  - j. *Membership Secretary's report*
  - k. *Strathclyde Geoconservation Group*
  - l. *Geodiversity: Argyll and the Islands*
  - m. *Treasurer's report*

5. Nominations and Election of Office Bearers:

The offices that have come up for election are listed here along with their Council nominations:

<b>Position</b>	<b>Nominee</b>	<b>Proposed by</b>	<b>Seconded by</b>
Hon. Secretary	Simon Cuthbert	B Bell	M Donnelly
Membership Sec.	Robin Painter	B Browne	W Gray
Day Excursion Sec.	Roy Bryce	M Cummings	W Gray
SJG Editor (1)	Colin Braithwaite	M Pell	R Painter
SJG Editor (2)	Brian Bell	S Cuthbert	C Burton
Independent Examiner	Ian Anderson	M Anderson	M Donnelly
Ordinary members (3)	no nominations yet		

6. AOCB

## **Minutes of the Annual General Meeting of Session 156 held on 12<sup>th</sup> December 2013**

### **WELCOME**

Ms Donnelly (Vice President) welcomed all present on behalf of the President then introduced the signing of the Scottish Geodiversity Charter.

### **THE SCOTTISH GEODIVERSITY CHARTER**

Prior to the official AGM, Angus Miller, Chair of the Scottish Geodiversity Forum invited Professor John Briggs, Clerk of Senate & Vice Principal (Senate Office); Professor of Geography, University of Glasgow, to sign up to the Scottish Geodiversity Charter on behalf of the University. The signing duly took place with short speeches from Angus Miller and Prof Briggs.

### **APOLOGIES**

Apologies were received on behalf of the President, Dr B Bell.

### **MINUTES**

The minutes of the AGM of Session 155 were approved and passed unanimously.

### **REPORTS**

M Donnelly then listed, for approval, the following reports, which had been circulated with the billet.

- The President's report
- Meeting Secretary's report
- Excursion report for day and evening excursions
- Residential Excursions report
- Library report
- Publications Secretary's report
- Proceedings Editor's report
- Scottish Journal of Geology Editor's report
- Website report
- Membership Secretary's report
- Strathclyde Geoconservation Group
- Geodiversity: Argyll and the Islands
- Treasurer's report

The reports were passed unanimously

### **NOMINATIONS AND ELECTION OF OFFICE BEARERS**

The list of offices coming up for election with nominees, proposers and seconders had appeared in the billet. These were approved by the members present. M Donnelly thanked all officer bearers of the Society for their hard work over the past year; she noted that some were retiring and some were moving to other posts. She thanked those who

were retiring namely, Muriel Alexander, Seonaid Leishman, Robert McNicol and Emily Unsworth. M Donnelly once more drew member's attention to the fact that an Excursion Secretary was urgently needed and asked for anyone interested to speak to her after the meeting. There are also two vacancies for Ordinary Members. The post of independent examiner of the accounts is also vacant since Beth Diamond had stepped down from this post. Beth agreed to carry out this duty for one more session and was proposed for the post by B Browne and seconded by M Donnelly.

#### **PROPOSAL TO INCREASE SUBSCRIPTIONS**

M Donnelly then went over the proposal to raise the subscription rates as outlined in the billet. She stressed the rise in cost of the meeting room hire as well as lecturers' expenses, postage and the Society website; all being significant contributory factors to the necessity for a rise. The members present passed the motion.

There being no further business, M Donnelly introduced the speaker for the evening, Dr Jim Hansom, University of Glasgow whose lecture was entitled "What has Geodiversity Ever Done for Us? Answers from a Coast Near You! "

### President's Report

This session, the Society has a membership of 353. Eight evening meetings took place, normally on the second Thursday of each month from October 2013 through to May 2014. Speakers were: Dr Richard Bates, University of St Andrews: *Doggerland extended - submerged prehistory in Northern Scotland* [Joint lecture with Archaeological Society]; Dr Tom Bradwell, BGS Edinburgh: *Ice streams in the British (Scottish) Ice Sheet: theory and observations – from onshore and offshore*; Dr Jim Hansom, University of Glasgow: *What has Geodiversity ever done for us? Answers from a coast near you!* (AGM and lecture); Professor Chris Hawkesworth, University of St Andrews: *The evolution of the continental crust: the isotope legacy* (Joint Celebrity Lecture with Edinburgh Geological Society); Dr Simon Cuthbert, University of the West of Scotland: *Geological travels in Norway*; Dr Rob Strachan, University of Portsmouth: *New interpretations of the Caledonian geology of Shetland*; Dr Simon Passey, University of Cambridge: *Continental flood basalts of the Faroe Islands and the opening of the North Atlantic*; Members' Night. Our day excursions ran from April through to September 2014, and included the following day trips: April – Cononish Gold mine (Chris Sangster); June – Pentland Hills (Richard Smith); Kinghorn to Kirkcaldy (Colin Braithwaite); July – Rock around the University & Building stones of the university (Maggie Donnelly); August - Schiehallion and Strath Fionan (Ben Browne & Maggie Donnelly). One residential field trip took place: Findochty to Fraserburgh, Leaders John Mendum & Con Gillen (Saturday 13th – Monday 15th September 2014).

The Strathclyde Geoconservation Group (SGG), a subcommittee of the Society's Council, has continued to promote geology in the wider community, investigating a number of new sites as well as continuing work on others. Members of the Council attended Steering Group meetings for the refurbishing of the Fossil Grove building in Victoria Park.

Our Society is a member of the Scottish Geodiversity Forum, which includes Geoparks, Museums, SNH, BGS, Geoconservation Groups, other Geological Societies and interested groups/individuals. The aim of the Forum is to promote Scotland's Geodiversity and its value in education, community involvement and health, tourism and the wider economy.

Sales of our new guide, on the geology of the Island of Gigha have gone well, and a new guide on the geology of Southern Kintyre is at an advanced state of preparation. Our leaflet on the *Building Stones of the University of Glasgow* has been well received and is distributed in the university free of charge. A Guide to the geology of Tenerife is being prepared for posting on the Society's website and a revised Guide to the geology of Arran is planned.

The Society's website has been further developed, to advertise our activities and to provide a platform for the promotion of geology.

*Dr Brian Bell*

### **Meetings Secretary's Report**

The session started with a lecture rather different talk from our usual when Richard Bates of St Andrews University. He told us about Doggerland, inundated by the North Sea several thousand years ago and extensions of this period into Northern Scotland. Some archaeologists joined us for this event.

In November, Tom Bradwell from BGS Edinburgh, who had been unable to give his talk in November 2012 because of jury duty returned to tell us about ice streams from the British Ice Sheet. He concentrated on the Minch and the North coast and showed us the great detail on the sea bed which can now be observed with sideways sonar images.

On the night of our AGM on 12th December, local man Jim Hansom of the Department of Geography and Topographic Science delighted our geodiversity buffs with an entertaining talk "What has geodiversity ever done for us? Answers from a coast near you!".

2014 opened with a bang when Prof Chris Hawkesworth of St Andrews gave the Joint Celebrity Lecture on 9th January. He was commemorating the centenary of Frederick Soddy's description of isotopes and gave a clear and interesting exposition of how the understanding of isotopes has aided the dissection of the evolution of continental crust. The Joint Lecture was attended by a larger than usual contingent from Edinburgh.

As if to remind us that 'extreme weather' is becoming more of an issue, on 13 February, Dr Peter Treloar was unable to leave the Home Counties because of flooding. Our Hon Secretary, Simon Cuthbert, manfully stepped into the breach with a talk on eclogites and subduction of continental margins.

Old friend Rob Strachan – expert on the Northern Highland Moine – came from Portsmouth to update us on the recent developments in Shetland geology and tectonics, including the discovery of a whole new set of metamorphic rocks aged around 900 Ma on Westing, Unst and elsewhere.

Glasgow graduate Simon Passey, now at Cambridge University, gave the latest in our series of lectures on North Atlantic opening when he talked about the continental flood basalts of the dramatic Faroe Islands. The season closed with Members' Night and its customary interesting and varied programme of talks and demonstrations.

*J.M.Morrison*

### **Saturday Excursions Report**

12/4/14 *Cononish Gold Mine & Glen Orchy*, Chris Sangster, Maggie Donnelly; 16 participants

21/6/14 *Pentland Hills Regional Park*, Dr Richard Smith; 13 participants from Glasgow, ~ 20 participants from Edinburgh

5/7/14 *East coast, Kinghorn to Kirkcaldy*, Dr Colin Braithwaite, University of Glasgow; 24 participants

19/7/14 'Rock Around' + *Building Stones of the University of Glasgow*, Maggie Donnelly; 21 participants

9/8/14 *Loch Ardinning*, Dr Simon Cuthbert – cancelled; 16 participants

23/8/14 *Schiehallion and Strath Fionan*, Ben Browne, Maggie Donnelly; 19 participants

These were all mostly successful probably due to early organisation, and advertising in the third (February) Newsletter. Three excursions were well attended – 20 participants are needed to make an excursion break even financially. A maximum of 16 could attend the Gold Mine; unfortunately three people cancelled within two days of the trip and replacements could not be found. However, three members joined us in the afternoon for Glen Orchy. The Pentland Hills Regional Park was the Joint Excursion with the Edinburgh Society who organised it. This was a gentle walk on a lovely day and high tea in Flotterstone Inn – very successful. Our Kinghorn to Kirkcaldy trip was excellent – volcanics and sedimentary rocks along a coastal section. The fourth excursion followed the 'Rock Around' exercise devised by Dr Tim Dempster of GU, and the new publication 'Building Stones of the University of Glasgow'. Unfortunately, our leader had to cancel the Loch Ardinning excursion at short notice due to unforeseen family circumstances. The last trip to Strath Fionan was intensely researched by Ben Browne who provided us all with a comprehensive insight into the geology. Due to a paucity of leaders, trips 1, 4 & 6 were led by myself and Ben Browne, but they seemed to work well. We again used Essbee Coaches for Excursions 2, 3, and 6; we required 'off road' vehicles for Excursion 1, and so travelled to Tyndrum in private cars and then used two land rovers, one belonging to Scotgold and one to an obliging friend, to take us up to the mine.

### **Residential Excursion Report.**

#### **Banffshire Coastal Section. Fri 12th Sept – Mon 15th Sept. 2014**

Our Residential Excursion was a study of the Banffshire coastal section, led by Dr John Mendum of BGS and Dr Con Gillen, recently of Edinburgh University. Twenty of us plus leaders travelled north by private car to Cullen, where we divided our accommodation among three hotels. Over the course of the four days we visited localities on the foreshores at Portknockie, Cullen, Sandend Bay, Portsoy, Boyne Bay, Old Hythe, Whitehills and Macduff, and inland at the Boggierow Quarries into Portsoy granite. The Grampian, Appin, Argyll and Southern Highland Groups outcrop along this coast but the geology is complicated by the Boyne Line and the Portsoy Lineament. Many of the rocks are intensely folded, and more than once, so that the amazing structures on occasion included superb interference patterns. The outcrops are also intensely sheared in places, leading to very steep dips and thus to steep grassy and rocky slopes accessing the shores. More difficult for some than for others! We were introduced to the 'Portsoy marble' which is in fact serpentinite, and had the pleasure of finding spectacular metamorphic minerals – kyanite, staurolite, andalusite and cordierite. The weather was mostly kind to us. Our leaders were excellent, explaining the intricacies of the local rocks with great patience and fortitude.....and they were very good company too, so that altogether we had a very enjoyable and successful weekend.

### Library Report 2013-2014

The Society's Library has continued to grow and diversify over the session with a large number of accessions notably from a former student (Mr. A. M. Jack) of the Department of Geology. The Society's considerable collection of geological maps has now been catalogued and the catalogue will shortly be placed on the website. Details of how to borrow maps will be forthcoming (currently - ask the Librarian on meeting nights!).

#### *Acquisitions*

The Jack Donation is very wide-ranging and consists of a core of mining and engineering geological works, notably of Precambrian gold deposits worldwide, but including the geology of diamond, tin and silver deposits as well as Mississippi Valley (Lead/Zinc) deposits. In addition from this acquisition we now have a long run of the Journals and Bulletins of the Chamber of Mines of South Africa - dealing primarily with the Namaqua and Damara metamorphic Belts of South Africa and Namibia. Other acquisitions include Neil Clark's latest book on Scottish Gold and a new Geology of Egypt. *Maps* The British Geological Survey continues to provide the Society with the latest geological maps for the whole of Britain, and we have also acquired sheets from the older "one inch" series:

#### Scotland

##### 4 Miles to one inch:

Sheet 14. West Central Scotland. Solid.

##### One inch to one mile:

Sheet 23. Hamilton. Solid.

Sheets 30, 31, 22, 23 (partim). Glasgow District. Solid.

Sheets 30, 31, 22, 23 (partim). Glasgow District. Drift.

Sheet 30. Glasgow. Solid.

Sheet 30. Glasgow. Drift.

Sheet 31. Airdrie. Solid.

Sheet 31. Airdrie. Drift.

Sheet 38. Loch Lomond. Solid and Drift.

Sheet 39. Stirling. Solid. Sheet 39. Stirling. Drift.

##### 1: 50 000:

Sheet 46W. Crianlarich. Bedrock.

Sheet 46E. Killin. Bedrock.

#### England and Wales

##### Special 1: 50 000:

Fforest Fawr. Geology and Landscape.

Isle of Wight. Bedrock and Superficial.

##### Special 10 miles to one inch:

William Smith 1815 Geological Map (Facsimile).

*Dr C. J. Burton, Librarian.*



**Publications Officer's Report, Session 156**

It has been a busy year at the book shop. Muriel Alexander came to the end of a very successful and much appreciated six year term of office at the December 2013 AGM and my term of office began in January 2014. I had a lot to learn and am very grateful to Muriel for her continuing advice and assistance while I have been learning the ropes. Interest in the books on offer has continued to be lively and between the two of us we have accumulated a profit of more than £500. Much of this has come from postal sales of the Madeira and Gigha guides ordered via the website. Bill Gray has been an essential part of this by handling the correspondence and payments and he has my grateful thanks for all his work. A few new titles have been added to our stock including the excellent book "Scottish Gold" by Neil Clark. Barbara Balfour and Allison Drummond have continued to assist with the management of the bookshop on lecture evenings and we have been joined by Bob Diamond. I give them all my heartfelt thanks for their invaluable support.

*Mina Cummings*

**Proceedings Editor's Report, Session 156**

The proceedings for session 155 reflect another successful and enjoyable year. The evening lectures were very interesting and well attended and the synopses reflect the variety of topics to which we were treated. As always a large part of the proceedings is given over to the reports of day and weekend trips for which many thanks are due to those who took so much trouble to produce lively and detailed accounts of the trips together with excellent photographs. This year's issue was larger than usual because of the superb reports of the trip to Norway and the many photographs used to illustrate it.

As the printed version of these reports is necessarily in monochrome the reports are also reproduced in colour on the website and I would urge those who have access to the website to log on and enjoy the full colour version. They can be found at <http://geologyglasgow.org.uk>. Once in the website select **Excursions** from the menu bar at the top and then **Excursion reports**. Here you will find the day trip reports from session 153, 154 and 155, together with the residential (Norway) report for session 155. My thanks go to Bill Gray for uploading and managing my pdf's on the site.

*Mina Cummings*

## Membership Secretary's Report

	At end Session 156 30 Sep 2014	At end Session 155 30 Sep 2013
Honorary Members	4	5
Ordinary Members 275	289	
Associate Members	64	66
Junior Members	10	16
<b>TOTAL Members</b>	<b>353</b>	<b>376</b>
New Members	14	24
	(joining in Session156)	(joining in Session155)
Memberships Closed	19	15

Overall membership numbers in Session 156 has decreased (6.1%) from the previous Session. The new members joining rate in Session 156 was a little lower than in Session 155. There was a slightly higher number of memberships closed (memberships are closed either by resignation, non-payment of fees or death) than in Session 155.

*R A Painter*

## Proceedings Editor's Report, Session 156

The proceedings for session 155 reflect another successful and enjoyable year. The evening lectures were very interesting and well attended and the synopses reflect the variety of topics to which we were treated. As always a large part of the proceedings is given over to the reports of day and weekend trips for which many thanks are due to those who took so much trouble to produce lively and detailed accounts of the trips together with excellent photographs. This year's issue was larger than usual because of the superb reports of the trip to Norway and the many photographs used to illustrate it.

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*Mina Cummings*

**Scottish Journal of Geology: Editors' Report 2014**

Following what seemed to have become a recurrent decrease in submissions, 2014 has been a good year and for the moment we have a satisfying number of papers on diverse topics 'In House' and progressing towards publication. For most of our authors this means that, subject to review, their work is likely to appear in print within months of submission. Members may not be aware that papers accepted for publication and processed ready for the printers now appear online some time before the print edition is ready, providing an additional incentive to intending authors.

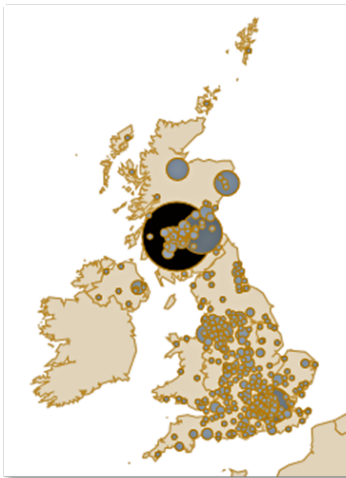
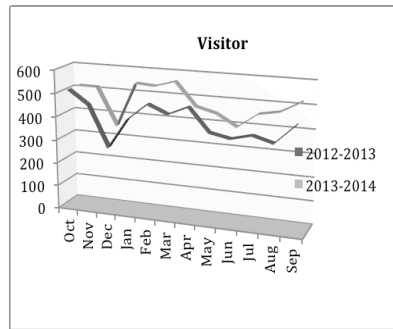
The journal continues to hold a modest place in the citation index competition, comparing favourably with similar journals published elsewhere. Our collaboration with the London Geological Society's (GSL) Publishing House has continued to bear fruit and the SJG has been widely publicised at conferences and in materials circulated by them on our behalf. The complete archive of the Journal is now available in the GSL Lyell Collection, one of the largest online repositories of geological materials in the World. It is important to remind Members that, if they have a broadband connection, they can access the SJG anywhere in the world from this site. The Lyell Collection now also contains the entire archive of the Transactions of both the Edinburgh and Glasgow Societies from their inception in the 1860s. Through the good offices of the GSL, these materials are now also available from GeoScience World, the premier repository in the United States, hosted by HighWire Press in California. These associations have already generated a satisfying number of references to the SJG and exposure for our authors. We can reasonably expect that these will raise the status of the journal and encourage more submissions.

Over previous decades the Journal has seen a number of changes, from the quarto style of the 1960s, with text run across the page, to the A4 double column format beginning in 1990. A new format will appear in 2015 with alterations to the text and layout that we hope will improve the appearance. Illustrations have improved significantly from simple black and white to high quality photographic images and the potential for colour. We do not have the resources to finance full colour for all but authors can contribute to the costs of publication of colour images and even if they cannot their images will appear in full colour online at no cost to them.

*Dr Colin Braithwaite*

### Website Report for Session 156 (October 2013 – September 2014)

The website has been running since January 2011, and during the sessions since then the number of visits has steadily increased. In Session 156 there were 7385 visits to the site, an increase of 6.6% over the total for the previous session (6928). The number of visitors, as opposed to visits, was 5244, an increase of 17.2% over the previous session's total (4474). The chart shows the number of visitors each month for Sessions 156 (2013-2014) and 155 (2012-2013).



The increase in visits was the result of increased traffic from abroad, as the number of visits from the UK for Session 156 (5548) was almost identical to the number for the previous session (5547). The three most productive countries were the USA with 389 visits (376 in the previous session), Brazil with 137 (29) and Australia with 131 (96). Within the UK, Scotland accounted for 3142 visits (3012 in Session 155), England for 2298 (2278) Northern Ireland for 59 (207) and Wales for 45 (45). The map shows the amount of traffic from cities within the UK. Glasgow was the most productive city, with 1461 visits (1527 in the previous session), followed by London with 814 (900) and Edinburgh with 489 (616). There was a marked increase in the number of visits from Inverness, from 28 in Session 155 to 161 in Session 156. Apart from the homepage, the

most popular pages were the Excursions page (3.9% of pageviews) and the Lectures page (3.4%). The Events, Strathclyde Geoconservation and Bookshop pages all had over 2% of pageviews. By far the most productive source of traffic to the website was Google, which was responsible for 3948 visits (3462 in the previous session), but the next most productive was direct logons to the website, which produced 1789 (1961) visits. The majority of the remaining visits resulted from referrals from other websites. The referrals from scottishgeology.com were up slightly (136 this session compared to 132 last session), but those from the Edinburgh Geological Society website (96 compared to 153) and the Geological Society of London website (48 compared to 51) were both down. However, the most productive source of referrals was visitscotland.com, which produced 231 visits, up dramatically from the 27 referrals in the previous session. Facebook produced 194 referrals, considerably fewer than the 283 in the previous session.

The society's Facebook group now has over 162 members, which implies that any

Facebook posts have a potential audience of over 700 people. The reason for the decrease in direct traffic from the Facebook page to the society's website is probably that there have recently been fewer postings on the website pages because of the effort being put into the site's upgrade (see below). It is expected that the number of referrals will increase when the upgrade has been completed and more new articles are being generated.

As Webmaster, I am responsible for the day-to-day running of the website. However, decisions about its content and long-term direction are taken by the website group, which consists of Neil Clark (Web Consultant), Emma Fairley (Website Coordinator), Maggie Donnelly (Society Vice President) and me. The group recently decided that, after running for more than three years with its original structure, the website would benefit from an upgrade, and the society's council agreed to provide the required funding. The upgrade is currently being carried out on a test version of the website by the company who developed the original website, Red Paint, and the new version should be ready to go live by the beginning of December 2014. There will be numerous improvements to the layout of the site, but the main change will be the addition of a new section on the rocks of the Glasgow area, which will contain a detailed geological map of the area, prepared by Emma. This map will contain links to descriptions of 12 of the best geological sites in the area, and these descriptions will eventually contain links to excursion itineraries for the sites. In addition, there will be new pages on minerals, rocks and fossils.

The website requires a continuing input of news items and event details to keep it fresh and topical. I am grateful to society members who have provided such material in the past and encourage all members to continue to send relevant articles and information to: [web@gsocg.org](mailto:web@gsocg.org).

*Bill Gray*

### **Strathclyde Geoconservation Group Report**

**East Dunbartonshire Council:** Geology information boards, one at Twecher and two at Crow Road car park are now in place and there was a successful launch at Twecher attended by representatives of East Dunbartonshire Council, local press, school children and SGG members in April 2014.

**North Ayrshire Council:** SGG were approached by North Ayrshire Council NAC to supply sites of geological interest to link into a biodiversity audit. 22 sites described in great detail by Dr Chris Burton have been passed to NAC.

**North Lanarkshire Council:** Members of the North Lanarkshire Group have handed over details of 15 geological sites to NLC Biodiversity Officer as part of an audit.

**Scottish Geodiversity Forum:** Margaret Greene continues to take an active part in the Forum.

**Leaflets:** A new booklet, The Building Stones of Glasgow "Glasgow Rocks" produced by Margaret Greene, has been printed and distributed. A new leaflet entitled "Cumbernauld Rocks" has been produced by Paul Carter of the North Lanarkshire Group. A second print

run of 5000 Dumbarton Rock leaflets has been completed and distributed.

**Fossil Grove:** Representatives of SGG have been active in following the progress of the refurbishment/rebuilding of the Fossil Grove area and continue to liaise with the two FG rangers.

**SGG Members:** Rachael Ellen had to resign from the Group as she was relocating to Edinburgh. Her position as Website Manager has been filled by Maggie McCallum. Seonaid Leishman has stood down from Archivist and the position is now filled by Margaret Anderson. Mina Cummings has stood down as Secretary and the position is now filled by Barbara Balfour.

**Activities:** Over the last year SGG members have been involved with giving a talk to Kilmarnock Community Trust, providing geology input into a walk organised by Woodlands Community Garden, walks organised as part of the John Muir Festival including part of the John Muir Way and a loop walk from Twechar and in connection with the Great Outdoor Festival, a walk round Strathblane. Another geology themed walk was led in Rouken Glen. SGG was also represented at Ardmore Point Volunteer Day as part of a path clearance and vegetation management. At Fossil Grove for Doors Open weekend 20/21st September, SGG had a marquee in which they had organised geology linked activities. Leaflets were also dispersed at other Glasgow Doors Open locations. SGG propaganda was also available at Doors Open day at BGS, Edinburgh.

*Margaret Greene*

### **Geoconservation: Argyll and the Islands Report**

The AGM of the group was held on 29 November 2013 at the Ocean Explorer Centre on the campus of the Scottish Association for Marine Sciences (SAMS) Centre, part of UHI, at Dunstaffnage. The committee and officers remain unchanged for this year. The principle of creating a roadside geology trail was agreed at the AGM. Some preliminary work has been done, but progress is slow. It remains on the group's agenda. Field trips for the U3A group this year included a re-run of the local trip around Oban Bay, and a new trip to Gigha based on the new field guide. Demand was such that two Gigha trips were planned, but the second one had to be postponed until next year due to unforeseen circumstances. The main activity this year has been work done by the Oban U3A Geology group to create a Town Trail in Oban for the building stones. The group has already done considerable groundwork, though one aspect is proving difficult – there are few pointers to the actual quarries from which many of the building stones came. We suspect that some of these came from the same quarries as similar buildings in Glasgow. We are researching, but if any GSG member has 'inside information', please let us know. The GAI group will be cross-checking the material produced by the U3A group, so that in due course one or more publications may result. Perhaps at some stage, GAI may request help in securing funding for that purpose. The AGM of the group will be held on Monday 8 December 2014 in Oban. The committee and officers are likely to remain unchanged for the coming year.

*Alastair Fleming*

## Financial Statements for the Year Ended 30th September 2014

### Accounting convention

The financial statements have been prepared under the historical cost convention, and in accordance with applicable accounting standards. The accounts are also set out to comply with guidance from OSCR. The principal accounting policies adopted in the preparation of the financial statements are as follows:-

- All income from membership subscriptions, excursions, publications, bank interest and donations is accounted for on an accruals basis.
- Resources expended are accounted for on an accruals basis and are recognised when there is a legal or constructive obligation to pay for expenditure.
- All costs have been directly attributable to one of the functional categories of resources defined in the Statement of Financial Activities.
- Expenditure on equipment is charged to Revenue in the year of purchase.

### Notes on entries:

1. During the course of the year money was collected to fund the ConocoPhillips prize. ConocoPhillips contributed £1250 to fund prizes for the five years 2014-2018. Our sister societies of Edinburgh and Aberdeen each contributed £83.33 to fund the prize for 2014, yet to be awarded, to this we added £83.34 and the sum of £1500 has been allocated to a restricted fund making £500 available for the 2014 prizes.
2. The publishing costs for the Moine Guide were shared between the National Museums of Scotland, Edinburgh Geological Society and the Geological Society of Glasgow on a 50%/25%/25% basis and profits are shared accordingly. The GSoG have no control over most sales or stock so accurate reporting has been difficult and the stock value ascribed to the Society at 30th September 2013 was only an estimate. This year we have a more reliable estimate of stock necessitating a substantial devaluation of stock value. Similarly a thorough stock taking of our in house publications has necessitated a significant devaluation both shown as a deduction from the Members' Fund.

#### **Moine Guide**

Closing Stock valuation session 155	1146.00
<b>Deduct Stock Devaluation</b>	<b><u>673.00</u></b>
Opening stock Value session 156	473.00
Closing stock	<u>228.00</u>
Value of stock sold	245.00
Income	<u>502.00</u>
<b>Profit</b>	<b><u>£257.00</u></b>

#### **In House Publications**

Closing stock session 155	4592.72
<b>Deduct Stock Devaluation</b>	<b><u>262.17</u></b>
Opening stock session 156	4330.55
Add Publications purchased	<u>572.07</u>
Stock available for sale	4902.62
Deduct Closing stock session 156	<u>3915.63</u>
Stock assumed sold	<u>986.99</u>
Receipts	<u>1578.59</u>
Gross profit	591.61
Less Expenses	<u>88.99</u>
<b>Net Profit</b>	<b><u>£502.61</u></b>

3. Society funds were used to sponsor the publication of a leaflet by the Strathclyde Geo-Conservation group, a book by the Hunterian Museum to accompany their Scottish Gold exhibition and also to support an educational expedition to commemorate Hugh Miller's *The Cruise of the Betsy*. A further £408 was donated by members to support the latter to which was added the Gift Aid reclaimed on this sum.
4. Half the cost of upgrading the website was born this year the remainder to be paid next year. This exercise may need supplementing every three years or so.
5. Room Hire for lectures has been inflated and will need renegotiating.
6. In June £30,000 was transferred from National Savings to a portfolio of investments managed by Speirs & Jeffrey. By year-end there had been little change in the value of either this or our other investments so the previous valuation was retained for the balance sheet.

*Ben Browne, Treasurer*

Income and expenditure sheets are overleaf:



## THE GEOLOGICAL SOCIETY OF GLASGOW

## Income and Expenditure Account for year ending 30th September 2014

		Session 156 2013 - 2014		Session 155 2012 - 2013	
<b>Income</b>					
1. Subscriptions					
Received by Bankers Order		4,588.50		4619	
Received by payment to Memb Sec.		1,377.50		1470	
Deduct paid in advance this year		-120.00		-80	
Add received in advance last year		<u>80.00</u>	5,926.00	<u>40</u>	6049
2. Investment Income					
Dividends		557.67		525	
National Savings		<u>398.61</u>	956.28	<u>377</u>	902
3. Gift aid					
	re GSG	963.92		900	
	re Betsy	102.00			
Extra to accrual on 2013 gift aid		<u>37.05</u>	1,102.97	-9	891
4. Conoco-Phillips prizes					
	ConocoPhillips 5yr contribution	1,250.00			
	Edin. GS paid in adv last year	83.33			
	Aberdeen GS	<u>83.33</u>	1,416.66		
5. Publications					
	In house	net profit 502.61		761	
	Moine Guide	net profit 257.00	759.61	<u>200</u>	1935
6. Saturday excursions					
	income	1,453.00			
	expenditure	<u>1,479.05</u>	-26.05		16
7. Week end excursions					
	Ben Lawers	income 1,500.00			
		expenditure 1,492.00	8.00		0
	Cullen	income 524.00			
		expenditure 488.00	36.00		-300
8. Donations (coffee collections)			280.43		280
9. Collection for Voyage of the Betsy project	Note 3		408.00		408
10. Miscellaneous income			25.05		58
<b>Total income</b>			<b>10,892.95</b>		<b>8940</b>
<b>Expenditure</b>					
1. Meetings incl speakers expenses, etc		499.80		645	
Meeting Secretary expenses		676.00		514	
Room hire session 155		<u>3,132.00</u>	4,307.80	<u>1159</u>	2318
2. Publication and postage of Proceedings	Note 5		577.99		1044
3. Sponsorship					
	Building Stones of Glasgow Leaflet	350.00			
	Gold Book	500.00			
	Betsy Project	500.00			
	Members collection re Betsy	408.00			
	Gift Aid on Betsy collection	<u>102.00</u>	1,860.00		0
4. Library and Down to Earth			115.00		112
5. Insurance			196.78		187
6. Conoco-Phillips prizes			0.00		800
7. Website					
	Maintainance	318.46		826	
	Upgrade	<u>1,186.80</u>	1,505.26		
8. Affiliation fees			405.00		350
9. Admin costs - postage, stationery, etc					
	Hon Secretary expenses	216.70		500	
	Membership Secretary	514.24		332	
	President & VP	54.12		122	
	Treasurer	<u>24.00</u>	809.06	93	
10 Miscellaneous expenditure (bank Charges)			4.00		62
11 Transfer of funds to Conoco Phillips Fund	Note 1		1,500.00		
<b>Total expenditure</b>			<b>11,280.89</b>		<b>8500</b>
<b>Loss</b>			<b>-387.94</b>		<b>Profit 440</b>

## THE GEOLOGICAL SOCIETY OF GLASGOW

## Balance Sheet as at 30th September 2014

		<b>Session 156</b>		<b>Session 155</b>	
		2013 - 2014		2012 - 2013	
<b>Members' Funds</b>					
Balance as at 30/09/2013		62,897.77		62457	
Surplus/(deficit) for the year		-387.94		440	
Devaluation of Book Stock	In House	-262.17			
	Note 2				
	Moine	-673.00		0	
<b>Balance as at 30th September 2014</b>		<b>61,574.66</b>			62897
<b>Restricted Funds</b>	TN George fund	380.00			380
	Note 1				
	ConocoPhillips fund	1,500.00			0
<b>Total Funds</b>		<b>63,454.66</b>			<b>63277</b>
<b>Represented by</b>					
<b>Current assets</b>					
Cash at Bank					
	Royal Bank of Scotland	4,971.84		2,884	
	National Savings	3,438.01	8,409.85	33,039	35,923
	Note 6				
Cash in hand					
	Publications sales officer	0.00		0	
	Membership Secretary	485.76		200	
	Hon Secretary	-121.70		95	
	Meetings Secretary	-5.00		0	
	President/VP	307.12	666.18	161	456
National Savings Income Bond					
		12,000.00		12,000	
Current Valuation of investments					
	Note 6	38,355.00		8,355	
Debtors -					
	Gift Aid	0.00		900	
	Ben Lawers hotel deposits	0.00		270	
	Gigha sales not paid yet	0.00	50,355.00	210	21,735
Stock of Publications					
	In house	3,915.63		4,593	
	Moine Guide	228.00	4,143.63	1,146	5,739
		<b>Total Assets</b>	<b>63,574.66</b>		
<b>LESS LIABILITIES</b>					
Subscriptions paid in advance					
		120.00		-80	
Conoco Phillips prizes					
		0.00		-83	
Ben Lawers paid in advance					
		0.00	120.00	-413	-576
		<b>Total Liabilities</b>	<b>120.00</b>		
<b>Net assets</b>		<b>63,454.66</b>			<b>63277</b>

These financial statements are prepared in accordance with the special provisions of part VII of the Companies Act 1985 relating to small companies.

The financial statements were approved on ..... by the Trustees and signed on their behalf by

Signed as approved by the Trustees .....

President

Dr B Bell

Signed by the Independent Examiner .....

Prof Chris Morris