



Earth Science Education Forum (England and Wales)

Minutes of the thirty-eighth meeting

Held in the Gavin de Beer Room, Natural History Museum, Exhibition Road, London at 1.30 p.m. on 7 December 2010.

Present: Chris King, Chairman (Earth Science Education Unit)
Hilary Arrowsmith (Mineral Products Association)
David Bailey (British Geological Survey, BGS)
David Brook (London Diversity Partnership)
Susan Brown (Geologists' Association and Rockwatch)
Tom Hose (Geoconservation UK)
Grace Kimble (Natural History Museum) Host
Natasha Lee (Gloucestershire Geology Trust)
Rosalind Mist (Support Centre for Resources in Education, SCORE)
Dave Waltham (Committee of Heads of University Geoscience Departments, CHUGD)
Peter Warren
June Wright (BGS)

Speaker: Grace Kimble 'Challenges in a museum environment' followed by a tour of the Darwin Centre, NHM

1 Apologies for absence

Apologies for absence were received from Diane Ashton (IOM3), Steve Brace (Royal Geographical Society and IBG), Martyn Bradley (Geology Trusts), Chris Carlon, Jacqui Malpas (Clwydian Range AONB), Cally Oldershaw (ESTA), Alan Rhodes, Hazel Rymer (OU), Paul Smith (Birmingham University), Niki Whitburn (ESTA), Martin Whiteley (Geology Trusts), Jane Wilson (London Diversity Partnership)

2 Minutes of the 37th meeting 19 October 2010

The minutes were accepted as a true record of the meeting after minor amendments. A revised copy will be placed on the ESEF website.

Action: David Bailey

3 Matters arising

3.1 [Agenda item 7.1] Susan Brown reported that many people attended the Festival of Geology held on the 6 November 2010 at the University College London.

3.2 [Agenda item 7.6] A-level students from all school types (e.g. comprehensive, private) have increased year on year. Chris King has written a report and will forward to secretary for circulation (a draft article written on this for publication in ESTA's *Teaching Earth Sciences* is attached). GCSE take-up has increased since its survival was confirmed, strongly supported by ESEF lobbying; costs have been reduced by using an online component to the examination, and a new syllabus has been introduced this year showing an anticipated 20-40% increase; with numbers as low as 600 at one stage this is a welcome improvement. In Scotland there is only one awarding body and because candidate numbers are low the future of geology as an examination subject is being reviewed there too. 1300 students graduated in earth science related degrees last year.

Action: Chris King and June Wright

- 3.3 [Agenda item 7.8]The delay of the Geological Society Careers day event was noted as being too late in the academic year for its target audience. The GSL should be encouraged to hold the event in the autumn; it would be useful for ESEF to know of events held by GSL Regional Groups so they can encourage local support. Chris King agreed to write to the GSL to lobby for the event to return to its autumn date. **Action: Chris King**
- 3.4 There was concern that the Geological Society library under review and all are encouraged to write to the President, Dr Bryan Lovell, in support of this valuable resource. Chris King will write on behalf of ESEF. Tom Hose will also write on behalf of Geoconservation UK. **Action: Chris King and Tom Hose**
- 3.5 Chris King requested that the title and names of speakers should be included in the minutes of future meetings with a brief summary of the presentation. Secretary to add as an agenda item. **Action: June Wright**

4 Finance report

There has been no change in our finances.

5 ESEF website (www.esef.org.uk)

David Bailey reported that there have been no changes; the minutes from the last meeting will be added. **Action: David Bailey**

6 All-Party Parliamentary Group for Earth Sciences update

No update was available and secretary to contact Cally Oldershaw in time for the next meeting **Action: June Wright**

7 Potential collaborative projects

- 7.1 David Brook informed the meeting that the London Geodiversity Partnership, which he represented, was a partnership of Natural England, English Heritage, the Greater London Assembly and a number of London Boroughs, some colleges of the University of London, the Geologists' Association, and several local geological societies. In October, it launched the London Geodiversity Action Plan, which includes a specific target on increasing awareness of geodiversity in London. The Plan is available at: www.naturalengland.org.uk/regions/london/ourwork/wildlondon/landscape-geodiversity.aspx
- 7.2 The Partnership has also produced a report on the building stones of London and a report on the influence of geodiversity on London's designed landscapes.
- 7.3 For several years, the Harrow & Hillingdon Geological Society has put on a two-week exhibition, at the central libraries in Harrow and Uxbridge. It includes posters and specimens showing the rock cycle, the geology of the local area, including building stones, the geology of recent field trips by the society and other areas of topical interest. It also includes a hands-on table with rock specimens, magnifying glasses and microscopes, which is taken to local schools on request. The HHGS write to all schools in the relevant borough, telling them of the exhibition (which includes the half-term) and inviting them to bring groups. This initiative has been submitted as an entry to the ENI Challenge.
- 7.4 Grace Kimble said she may be able to help David Brook with possible funding links. **Action: Grace Kimble**
- 7.5 There are many other societies over the London Boroughs. It was noted that this is a good incentive and should be encouraged across other organisations. There is a list of other organisations involved on the GA website: www.geologistsassociation.org.uk/LinkedSocieties.html
- 7.6 Natasha Lee informed the meeting that she has a volunteer at Worcester who is a second year school teacher and looking at doing a Ph.D. combining geology and teaching and would be

grateful for assistance with gaining funding. Tom Hose to discuss with Natasha Lee. The Institute of Education may also be able to assist. Simon Knell who runs the Leicester Museum course may also be able to contribute to the discussion. The Natural History Museum would be happy to have people in as observers.

- 7.7 The website of earth science teaching activities (www.earthlearningidea.com) that Chris King and two colleagues have been building are gaining popularity in the USA. The total number of PDF downloads last month was 23,000. Chris was congratulated on this success.
- 7.8 Keele and Bath are the only universities offering training to specialist geology teachers. This year Bath have two students and Keele four. To encourage wider participation, a distance-learning package is being developed. Distance learning will not be as good as classroom learning. Chris King will ask CHUGD to support geology teaching as a career.
- 7.9 Tom Hose (Geoconservation UK) noted that his area had had its funding withdrawn.
- 7.10 Hilary Arrowsmith informed the meeting that the Virtual Quarry website – <http://www.virtualquarry.co.uk/virtualquarry.htm> has games and events for children and their teachers, the website is being updated and built on as an ongoing project.
- 7.11 The UK Minerals Forum is considering developing a role-play exercise in conjunction with the BGS along the lines of the successful ‘Quarry or Not?’ event.
- 7.12 Rosalind Mist discussed the work that SCORE is doing with regard to the education white paper – The importance of Teaching. There are three issues – initial teacher education, change and what makes a specialist science teacher. A short briefing note should be ready for February – it would be interesting if there was an overlap with earth sciences.
- 7.13 The SCORE conference is to be held on the 11 February 2011. The theme is assessment and is research-based. It is oversubscribed with a waiting list, there are a variety of speakers and the scope for the meeting is 14–19 year olds. SCORE is closely involved in a project on practical work in science and what makes a good practical lesson. They are also looking at resourcing in schools in all areas of science — usually only chemistry, biology and physics — it would be good to work with ESEF on developing resources.
- 7.14 The BGS School Seismology project has new funding from PESGB, administered as grants through the Royal Astronomical Society. It is estimated that 50% of the seismometers given out to schools are not registered with the project, so there is no evidence as to whether or not they are in use by schools.
- 7.15 BGS is working with the Open University on a new virtual microscope which will have a smart phone app associated with it. There may be gaps in thin section availability and there could be a call for assistance to help fill them.
- 7.16 David Bailey informed the meeting that he is now a Geography Ambassador. The Royal Geographical Society runs this scheme and is keen to have geologists involved. They have a website where people can post requests for support. Ambassadors can search requests using a map-based interface and contact schools in their area to offer assistance. For more details see the website at:
www.rgs.org/OurWork/Schools/Action+Plan+for+Geography/Geography+Ambassadors.htm
- 7.17 ESTA, through John Reynolds, prepares rock boxes for sale to schools
- 7.18 Geoconservation UK sponsored a one day CPD course in May entitled ‘Geodiversity and Geoconservation’.
- 7.19 In Scotland ESEU leaves rock boxes following each school workshop visit.

8 AOB

- 8.1 There was discussion about whether university geology courses are classified as STEM subjects? In terms of JAC code it is. Other thoughts are that geophysics is but that the status of

geology was unclear. It is disturbing to think that funding may be lost. Geology is not on the list of strategically important subjects. Geography funding is not ring-fenced. The lack of clarity was disturbing and Chris King would seek more information. It was suggested the All Party group might be interested in discussing this issue. Chris King to ask Cally Oldershaw

Action: Chris King

- 8.2 The launch of the 'Beyond the Classroom' report on outdoor education will take place at a Parliamentary Reception on Wednesday 19 January 2011.
- 8.3 Agenda item for the 39th meeting: to discuss the paper from the 37th meeting, entitled Supporting Earth Science. This will allow for discussion on the paper Peter Warren has prepared
- 8.4 There is a geological app at www.audiotrails.co.uk/dinosaurs

9 Dates of future meetings

8 March 2011 Martyn Bradley and Natasha Lee to organise discussion on 'Geoscience in Adult Education'.

31 May or

14 June 2011 Cally Oldershaw to organise presentations on 'Geoscience Careers'.

Chris King thanked everyone for their attendance.

Agreed actions:

Agenda Item	Subject	Owner	Due date
37.6	All Party alterations to be communicated to David Bailey for Web update.	Cally Oldershaw	December 2010 meeting
37.8	Venue for future meetings. Either IOM3 at Carlton Terrace, or Anglo American room at NHM or BGS room at NHM	1. Diane Aston 2. Chris Carlon 3. June Wright	IOM3 will not be an option. Asap but to host Dec 2010 meeting
38.2	Minutes of 37 th meeting to uploaded	David Bailey	ASAP
38.3.1	Chair's report of increasing numbers taking geology to be forwarded to secretary for circulation	Chris King and June Wright	ASAP
38.3.2	Chair to write to GSL re change of date of careers day to Autumn	Chris King	ASAP
38.3.3	Chair and Geoconservation rep to write to GSL re library threat	Chris King and Tom Hose	ASAP
38.3.4	Presentation item to be added to agenda	June Wright	Next meeting
38.6	All Party update of procedures required	June Wright	Next meeting
38.8	Correspondence re geology and STEM categorisation And to ask Cally Oldershaw to enquire as to whether current Geology position re STEM could be the basis of an All Party meeting	Chris King	ASAP

10 Presentation:

Grace Kimble gave a talk entitled 'Challenges in a Museum environment'.

Grace's previous employment as a primary school teacher has given her a good insight into the requirements of her current role.

In addition to the specimens housed in the museum Grace also uses puppets and arranges activities. She has 157,000 contacts and is always looking at what adds value to their visits. When children who had visited were asked what they remembered they always said three things — the blue whale, the Tyrannosaurus Rex and the globe. When there has been pre-visit teaching the children remembered much more and varied topics.

Pre visit information is now sent out, giving information on the samples and instructions for the visit. There is also information for parent helpers as well as the teachers so there is no excuse for a poor visit.

They allow the children to dress up as the characters. They use props and things they can touch rather than just looking.

The NHM struggles to lend specimens it is usually easier for other museums to loan items.

The NHM takes a demonstration about Mary Anning to the fossil festival in Lyme Regis, among other things that also raise the profile of women in science and creates an interesting comparison to Charles Darwin.

The museum offers teacher 'twilight' events to profile areas of science.

The museum hosts an earth science show entitled 'Rocks the House', the event lasts for a week — teachers dress up and that is the part that all of the children remember.

The museum circulates an e-newsletter for teachers.

Video conferencing allows for many schools to receive the same presentation at the same time, it saves on time and travel and up to ten schools can be serviced with the event at one time.

Many sessions remain the same but some of the content can be changed to accommodate current events, e.g. Iceland volcano.

Grace then took the group of a quick introduction of the centre and left us to roam at will.

Everyone thanked Grace for very informative talk.