



CK comments Earth Science Education Forum (England and Wales) Minutes of the 58th meeting

Held in the Arthur Holmes Room, Geological Society, London. 1.00 pm, 29 March 2016.

Present

Annette Shelford (NHM Learning Team/Real World Science)
Annette Thomas (Project Consultant at Subsea UK)
Chris King (ESEF Chair)
John Stevenson (BGS)
Lesley Dunlop (English Geodiversity Forum)
Maria Iredale (PESGB)
Martyn Bradley (Geology Trusts & U3A)
Nic Bilham (GSL)
Nikki Edwards (ESTA)
Susan Brown (Rockwatch)
Tom Hose (GeoConservationUK)

Apologies for absence:

Cally Oldershaw (GSL)
David Brook (London Geodiversity Partnership)
Duncan Hawley (Geographical Association)
Isabel Markham
Judi Lakin (GSL)
Lorraine Craig (Imperial College London)
Maggie Williams (Liverpool Uni.)
Steve Brace (RGS & IBG)

1. Talk

'About Rockwatch' Susan Brown, Rockwatch Chair. – can we ask Susan to send us her slides for attachment, please

2 Minutes of the 57th meeting, 8 December 2015

The minutes of the 57th meeting were accepted as a true record. A copy has been placed on the ESEF website.

Action: JS

3 Matters arising

3. 1 National Curriculum (KS3 & 4)

GCSE geology

The subject content was published by the Department for Education (DfE) in December 2015. **CK** reported that the Ofqual had since produced its criteria, i.e. structure and assessment documents. [Eduqas](#), the WJEC exam board producing exams for the English market, is preparing for the development of the new specification for first teaching in 2017 together with sample assessment

materials (SAMs). This specification will soon be submitted back to Ofqual to ensure that it meets its criteria.

Geology A/AS Level

The Department for Education (DfE) published the subject content for AS and A level geology in March 2016. **CK** reported that the development of the criteria is at an earlier stage due to a longer and more involved consultation period. Exam boards (OCR and Eduqas/WJEC) are in the process of developing their specifications and the SAMs. 10 per cent maths content is included – which is likely to be a challenge for future teaching.

NB commented that strengthening the content, and the maths specification in particular, helps geology improve its position as a ‘real’ science.

CK reported that fieldwork assessment is still under development. School heads will need to sign off students’ participation in fieldwork.

3.2 Training for secondary geology teachers:

CK reported 11 places have been made available for the next Summer School in Teaching and Learning in Geoscience Education, based at Keele from 23-29 July 2016. The Summer School is the only formal training available for newly qualified teachers in 2016. Eleven bursaried places are available for this training course (£1500), more fee playing places are available (£1650).

Actions:

MI suggested that PESGB members may like to support teachers at their local schools for future Summer Schools.

NB and JS said that the Geological Society and BGS would publicise the course.

3.3 Geology for Non-Geologists training ‘Geolab’:

NE provided the following update: the NewcastleGeoLab will go ahead in Autumn 2016, Westmoreland has been postponed until 2017.

3.4 Destination survey for A-level Geology students:

This work is being followed up by research being led by OCR into the most effective methods of publicising geology in schools. The structure of the research is currently under discussion.

3.5 National Geology Database:

JS reported that the BGS [GeoBritain map](#) contains over 650 non-event related pins.

3.6 Geological poster map of UK and Ireland

JS reported that despite earlier promising updates of publishing in Spring 2016, the map has had a major setback. The BGS geologists have agreed that the Dalradian rocks need to be further subdivided. No revised deadline has been put forward as the project has no specific project funding, giving it a low priority in the BGS map production schedule.

The ESEF expressed their disappointment at the delay in the production of this map.

3.7 Future talks and meeting dates

Wednesday 15 June

Tuesday 4 October

Tuesday 6 December

Actions

NE to contact Colin Prosser and Jonathan Larwood about a talk in **June** about SSSIs the future and development of SSSIs as a geological educational resource

TH to contact Graham Warton about a talk at the October meeting on progress of the Dudley Museum Geopark application.

LD to seek out a speaker for the December meeting on the English Geodiversity forum.

4 Finance report

No significant changes to report.

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

The website is up to date.

JS reported that the website address www.esef.org.uk has been renewed for another five years.

6 All-Party Parliamentary Group for Earth and Environmental Sciences update

CK reported that the All Party Earth Science Group was no longer functioning and will be removed from the agenda for future meetings.

7 Potential collaborative projects

JS gave a short update on the collaborative project between the BGS and Leicester University on 'Vardyquakes' otherwise known as football-crowd-induced 'earthquakes'. The project, which uses data from three seismometers that are less than half a mile from Leicester City's King Power Stadium, has recorded 0.3 M earthquakes on recent match days. A press release issued by the Leicester undergrads had resulted in online and print media coverage across the world. Following the media success, the BGS has planned a one-day 'football quake' workshop and has interest from university students from Keele, Southampton, Birbeck, Plymouth, Royal Holloway and Cardiff.

8 ESEF Achievements

None reported.

9 AOB

Stakeholder meeting update

Annette Thomas gave the following update from 17 March 2016 Stakeholder Meeting, held at the GSL, which looked at the future of geoscience education and geoscience teacher training in the UK.

Annette Thomas is to become the project manager for the geoscience education training venture that hopes to plug the gap left by the ESEU. However, given sufficient funding, ideally the new venture would deliver over and above the teacher training workshops provided by the ESEU, but continue with the goal of supporting teachers that teach earth science but have no previous earth science teaching experience.

The project has three main action points

1. **Delivery mechanism of teacher training** for newly qualified teachers. The current method of workshop delivery in schools was considered to be satisfactory, but the project would also look at alternative delivery channels, using web technologies e.g. webinars or online courses.

Which other delivery channels should the project use?

2. **Succession planning of subject leaders.** The age and stage of subject leaders could become a problem in the near future as many of the current subject leaders have recently retired, but continue to work as subject leaders. The project needs to plan for 'apprentice' subject leaders. The new subject leaders will need the skills so that they are competent in a range of areas including developing exam criteria and becoming examiners.

How do you recruit, train and pay these specialists?

3. **Developing subject specialists** i.e. the geology teachers. The Geoscience Summer School is currently the only method for delivering training to existing teachers that already have a geoscience degree.

What other training could or should be offered?

When we know the answers to the above questions the project manager and will need to review, summarise, and recommend options to report back to stakeholders

This new development project is funded by the funds accumulated through annual ESEU underspends which will be returned to Oil and Gas UK. The project is not contingent on the ESEU, but needs to develop its operational structure by learning from the experience of the ESEU.

PESGB update

MI - next years' PESGB focus will be a 'geoliteracy month', sometime between March and April. Aimed at people of all ages, members and non PESGB members alike, geoliteracy month will help improve the public's understanding of geology where it forms part of our everyday lives. A programme of lectures on titanosaurus is also under discussion. MI invited ESEF members to submit ideas for potential PESGB funding for geoliteracy projects.

Geological Society Career Pathways website

NB provided flyers and an update of the new Geological Society ['Career pathways'](#) website, which provides career guidance and case studies that focuses on the UK education system, university system and job market.

Earth Science Educator Stories update

CK reminded the ESEF members to submit their [Earth Science Educator Stories](#). Please submit your stories to Chris King as per the [guidance provided](#).

WRITTEN UPDATES PROVIDED BY OTHER ESEF MEMBERS

NE provided the following written update for ESTA

ESTA has signed a MOU with the Geologists' Association, one with the GSL in the pipeline.

David Brook provided the following written update for the LGP:

Educational activities by LGP include leading a Geological walk on 'Springs and Spas in South London', working with City of London Corporation on interpretive material for Highgate Wood and with the developers and residents at North End Pit, with a successful launch event in September 2015. The HHGS held its usual two-week exhibition at Uxbridge Central Library in February 2016, including hosting a number of school visits.

MB provided the following written update for the WCGG

Warwickshire have had been involved with three major geology interpretation events recently.

1. A geological wall was built at the Wildlife trust's HQ and nature centre at Brandon Marsh. Rocks and bricks (derived from the clays) were collected from around the county and built into a wall to demonstrate stratigraphically a N-S transect of Warwickshire's geology.
2. The purchase of Bubbenhall Woods and meadow (formerly Wood farm quarry) by the wildlife trust of two geological SSSIs in the Quaternary 'Woolstonian' Bubbenhall sands and gravels. These have yielded 'ice age' fossils and Palaeolithic hand axes thought to have been used by Heidelberg man and were described by Shotton in a major Royal Society paper. In the adjacent Waverley Wood site river channels were discovered below the sands and gravels and found again in Wood Farm in the 1990s. Rose has proposed these to be in the headwaters of the Bytham river which flowed from Warwickshire to the Lowestoft area prior to the Anglian glaciation. These sites are now in the possession of Warwickshire Wildlife Trust and it is hoped that this will enable further quaternary research.
3. Festival of Geology 2016 – celebrating 25 years of WGCG
WGCG members turned out on a fairly chill February day to experience our very first Festival of Geology. The idea was to 'Bring Geology to the People' and it is good to report that 'the People' responded wonderfully. In fact, 250 came through the door and, at one time, the room was so packed that it was difficult to reach the displays! The response from our visitors was truly encouraging with comments such as 'the welcome and the enthusiasm of the volunteers was absolutely terrific', and 'what an excellent idea to make it so suitable for children as well as adults'. The Group also got some good publicity from the event – a 10 minute slot on BBC Coventry & Warks and two pieces in the Courier series of papers covering Leamington, Warwick & Kenilworth.