

# The Earth Science Education Forum (England and Wales)

## Minutes of the twenty-fourth meeting

Held at the Institute of Materials, Minerals and Mining, 1 Carlton House Terrace, London, at 1.30 p.m. on Tuesday 20 March 2007.

**Present:** Allan Rogers, Chairman  
David Bailey, Secretary (British Geological Survey)  
Cally Oldershaw, ESEF(EW) Executive Officer (Association for Science Education)  
Martyn Bradley (Geology Trusts)  
Susan Brown (Geologists' Association / Rockwatch)  
Judith Mansell (Royal Geographical Society with Institute of British Geographers)  
Tim Parry (Quarry Products Association)  
Andy Rankin (Committee of the Heads of University Geoscience Departments)  
Peter Warren

### 1 Apologies for absence

Apologies for absence were received from Chris King, Vice Chairman (and Earth Science Education Unit) and representatives of the following member organisations: Anglo American; Earth Science Teachers' Association; Gemmological Association; Geological Curators' Group; Geological Society of London; Institute of Materials, Minerals and Mining; National Stone Centre; Open University; Royal Meteorological Society; Royal Society of Chemistry; SETNET.

### 2 Chairman's introduction

Chairman welcomed everyone to the meeting. He reminded members that ESEF-Cymru had met in Wrexham on 13 March. Cynthia Burek and others had spoken on the subject of geodiversity at a well-attended meeting. The Forum would be submitting a report to the National Assembly on teaching earth sciences in Welsh. Other issues being addressed by the Forum in Wales included mineral extraction in the Bristol Channel, hydrocarbons in the Celtic Sea and the LPG pipeline being laid across South Wales.

### 3 Minutes of the twenty-third meeting, 21 November 2006

The minutes of the twenty-third meeting were accepted as a true record. D Bailey to upload a copy to the ESEF(EW) website. **Action: D Bailey**

### 4 Matters arising

*[Numbers in square brackets are paragraph numbers from the minutes of the previous meeting.]*

- 4.1 *[4.2] Forum members' subscriptions:* CO to compile list of members who had paid a subscription for the next meeting. **Action: C Oldershaw**
- 4.2 *[4.3] Sustainable Schools:* RGS and QPA had responded individually to the DfES consultation paper. The Forum had not submitted a response on behalf of members. TP agreed to circulate the QPA response to Forum members. **Action: T Parry**
- 4.3 *[4.4] International Polar Year:* The All-Party Parliamentary Earth Sciences Group (APESG) were still considering the idea of holding a meeting on this subject and were waiting on a response from POST. The Forum were particularly interested in discussing the political dimensions to complement scientific initiatives being discussed elsewhere.
- 4.4 *[5] Fieldwork and field centres:* A submission had been made to the Minister of State. No response as yet.
- 4.5 *[6] Groundwater project:* Progress was being made. CO had contacted schools to ascertain the resources they needed. Some responses had been received.
- 4.6 *[7] CHUGD report:* Deferred until after matters arising.

4.7 [9] *Executive Officer's report*: PW asked what had emerged from the APESG officers' meeting in January. CO replied that the dates of meetings had been agreed and circulated, but no topics had been assigned yet though it was likely that there would be meetings on educational and coastal matters and on International Polar Year.

4.8 [14.2] *Schools Challenge Day at BGS*: DB to send TP contact details for the organiser of this event. **Action: D Bailey**

## 5 **Committee of the Heads of University Geoscience Departments report**

5.1 AR reported that CO had attended the previous meeting of CHUGD and given a presentation on the workings of the Forum. There had been a useful two-way exchange of information. There had also been a presentation by the new Executive Director of BGS John Ludden, and BGS would now be permanently represented on CHUGD.

5.2 The main business of the meeting had been the issue of recruitment. Over a period of about ten years there had been a 1-2% year-on-year decline in students opting for geoscience courses. Earth sciences had a low profile in schools and this needs to be raised. The UK still produces a large number of graduates in earth science, but few go straight into geoscientific jobs. Employers in the hydrocarbons and extractive industries say they are not seeing applicants; they feel there is a need for better courses in applied and industrial geology. Industry had formerly funded a Minerals Industry Manpower Unit based at the Royal School of Mines; AR said he would like industry to consider revisiting this.

5.3 Chairman said that it was hoped the Geological Society would repeat their 'first destinations' survey and that CHUGD might be able to make a useful input. AR agreed to take this suggestion to CHUGD. CO reminded members that the Forum had established a Working Group which had met with employers; Chris King would report at a later meeting. **Actions: A Rankin and Chris King**

5.4 The meeting had also discussed the problem of indiscriminate drilling of outcrops for research purposes, especially in Scotland. Protocols are not being observed and SSSIs have been damaged. SB said that the Geologists' Association had a leaflet on coring, it might need to be reprinted.

5.5 British Standards Institute had circulated a draft standard for overseas fieldwork and expeditions. Neither the Geological Society nor CHUGD had been represented but both had made responses. The CHUGD response was on their website. The standard was considered to be very restrictive and concerned mainly with hazards and, as such, would discourage fieldwork. Universities were already well aware of their legal responsibilities and had developed safe systems of work. UK field work was covered by Health and Safety law. JM said that the impetus for the standard had come from teachers. The rationale was that adherence to the standard would provide teachers with protection from prosecution. Education Business Co-ordinators have DfES guidelines that cover all school trips. Chairman pointed out that the protection provide by the BSI standard was as much for the authorities as for the participants. Adherence to the standard might be required by insurers.

5.6 AR said that the final issue discussed by CHUGD was the 'blurring' of demarcations between geoscience disciplines. While some members were not in favour, he felt this was a positive development that would promote interdisciplinarity.

5.7 The next meeting of CHUGD would be on 21 May 2007. A representative from ESEF would be invited to the November meeting.

## 6 **KS3 Questionnaire**

6.1 CO reported that the QCA had circulated a Statutory Consultation Questionnaire with a deadline of 30 April. This is an important development because geology has previously been subsumed into science on the National Curriculum. QCA have now separated out earth and environmental sciences. Forum members were urged to support this move. CO agreed to email the questionnaire to members by the end of the week. **Action: C Oldershaw**

## **7 STEM report**

7.1 CO would provide members with a link to the report. **Action: C Oldershaw**

7.2 The report included 19 action points. Chemistry and physics had been prioritised because of a lack of students applying to take A-levels in these subjects. Biology was not included because the number of students remained high. Psychology was chosen because it is the fastest growing science subject at A-level.

7.3 There had been a good response by Forum members to the omission of earth sciences from the report. Members were asked to look at the action points and send comments to CO.

**Action: All**

## **8 Earth science resources for the Gifted and Talented**

8.1 CO reported that the Open University had a system that allowed G&T children to take OU courses. Otherwise there was a lack of resources specifically developed for this group. A proposal to develop resources could be put together.

8.2 JM said that the most effective way to develop courses is via the National Academy for Gifted and Talented Youth.

8.3 PW suggested that a small group of members should be asked to take the initiative forward. AR said that he appreciated CO's efforts to raise these issues and agreed that the best way to make progress would be to identify champions within the Forum. CO will circulate what has been done so far.

**Action: C Oldershaw**

## **9 Outdoor science**

9.1 CO had circulated a request to members for information on outdoor science. The responses would be used for input to the ASE website.

## **10 Finance report**

Some small contributions had been received. CO to ask IOM3 for an end-of-year report in time for the next meeting.

**Action: C Oldershaw**

## **11 Executive Officer's report**

Covered under Agenda Items 6-10.

## **12 ESEF(EW) website ([www.esef.org.uk](http://www.esef.org.uk))**

New pages have been prepared with information provided by members and new pages on the activities of the All-Party Parliamentary Group on Earth Sciences. Launch of new pages pending input from CO.

**Action: C Oldershaw**

**13 SESEF update** — Nothing to report in CK's absence.

**14 Government policy issues** — Nothing further to report.

## **15 Annual Conference**

15.1 Chairman reported there had been no progress in the absence of funding. AR said that there should be a clear purpose for the conference, i.e. a link to some event or launch (such as a re-launch of the Minerals Industry Manpower Unit).

15.2 PW suggested that the 'shape' of earth science education could be a good conference subject; do recruitment problems stem from the lack of earth science education in schools, or is it in fact logical not to teach geology between the ages of 11 and 18? AR said that earth science careers needed to be actively promoted in schools and that chemistry, physics and biology teachers should be targeted. CO said that students need to be aware of earth science careers when they are choosing their A-levels.

15.3 Chairman suggested that there should be a mini-conference, possibly held in Parliament. Three or four working groups, with contributions from outside the Forum, would look at aspects of the issues that had been raised:

- How do we promote career pathways in earth sciences?
- How should earth sciences be taught in schools (at both primary and secondary levels)?
- How can we raise awareness of earth science issues (e.g. climate change and carbon footprint) amongst the public?

Chairman would make arrangements and sort out the finance.

**Action: Chairman**

## **16 Potential collaborative projects**

16.1 DB reported that he had been approached by Dr Dick van der Wateren Editor-in-Chief of the online Copernicus Journal for Young Scientists (<http://journal.copernicus.org/en/>) who was looking for sponsorship and support in kind. Dr van der Wateren was based in the Netherlands but would be happy to address the Forum, or contribute to an educational session of the All-Party Group, to explain how the website was approaching earth science education and engagement with young people. The Copernicus website is sponsored by the European Geoscience Union.

16.2 CO reported on developments on the ASE website and drew attention to the Royal Society of Chemistry's competition, which drew on the popularity of Bill Bryson's book 'A Short History of Nearly Everything'.

16.3 CO said that ESEF-Cymru were helping to organise a special 'Science and the Assembly' meeting on 22 May. Any members who like to attend should contact CO. **Action: All**

16.4 JM reported that RGS were holding a competition 'Can Recycling Save the World?'. Further details were available on the website ([http://geo.vnweb01.de/Geo\\_Links/Young\\_Geographer\\_2007/index.html](http://geo.vnweb01.de/Geo_Links/Young_Geographer_2007/index.html))

## **17 AOB**

SB reported that Rockwatch were compiling a book to celebrate the 150th anniversary of the Geologists' Association and the bicentenary of the Geological Society. She would circulate Forum members with a request to contribute material. **Action: S Brown**

## **18 Date of the next meeting**

The next meeting will be at **1.30 p.m.** on **Tuesday 19 June 2007** at IOM<sup>3</sup> in 1 Carlton House Terrace.

David Bailey, 25 March 2007