

ESTA Chair's Report 2018/19

The past year has seen us start to change how we present ourselves to the wider public, develop new relationships with our European partners, and start to change our membership criteria and website. We are also starting to incorporate ESEU projects into ESTA systems. The key focus for the past 12 months has been on ensuring our visibility to the wider public and we can say this has been very successful. Our use of social media, promotional videos and our leading talents (namely Chris King and Pete Loader) have kept geology in the public eye and these are hopefully starting to have an impact. We do need to keep up the effort though and I hope people will be able to spare time and contribute their ideas to the cause.

ESTA President

Thanks to Pete Loader for helping us approach Prof. Ian Barker of the University of Exeter to take up the role of ESTA President from June 2019 to September 2020. We have asked for Prof. Barker to complete the duration of the existing term which started in September 2019. Prof. Barker is an experienced leader and strategic thinker in water policy, planning, regulation and management, so his expertise is very relevant to current discussions in sustainable development and the future of Earth Sciences. We are already getting a head start on the process for 2020 with a list made at the June council meeting. People will be approached by the November council meeting and the progress will be discussed then.

Time for Geography

This has been a very productive partnership. Rob Parker, the founder of the website, joined us for our conference in London and was impressed by our dedication to Geology. The organisation are keen to continue to develop links with ESTA and promote our activities, and have made films related to Geology, using myself and others with a geology background to help ensure our curriculum is also included in the materials produced. ESTA is also being promoted on their website alongside the Geographical Association, helping us build our presence online.

Geological Society of London

I attended the Education Committee meetings throughout the 2019-20 academic year. An MOU between ESTA and the Geol Soc has also been signed. There will be an article co-authored by myself, Chris King and Sian Vollum-Davies of University of Derby, about the current state of geology education in the next edition of *Geoscientist*. We will also publish this in *Teaching Earth Sciences* and will see if it is publishable further afield. We have also been invited to the three careers fairs and plan to give a talk at each, either by myself or a member of ESTA Council.

Promotional videos and social media

I have been filming all year and have produced some great footage. We need some more interviews with teachers (which will be conducted during the conference in September) and we will start to release these videos over the next six months. I have produced some cartoon style videos on social media which have been viewed thousands of times and triggered hundreds of responses.

In a bid to encourage more students to take geology we will be starting a #thinkgeology hashtag and hope people will use it when they post online. Thank you to Jo Conway for being involved and starting this idea. It has started to gain some traction.

IGEO/EGU European Chapter meeting on the 26th April at the Earth Science department of the University of Coimbra

Myself and David Bailey attended the inaugural meeting of the European Chapter and found that many of the same concerns were similar across the continent. Where geology was most successful it was often in conjunction with other subjects (in particular Biology). Portugal was a particular success story. The aim of the chapter is to continue to work together to promote the teaching of geology in Europe. We will continue to support the development of the chapter and contribute where relevant.

Tomlinson Brown Trust

I have met with Dr Roger Wall about the promotion of their activities, and we will ensure that our respective websites promote the activities of the other. I have also suggested an article is written for *Teaching Earth Sciences* and that some of their trustees attend our conference. The trust is aimed at supporting teachers and students in the delivery of geology so I hope you will take the opportunity to apply for funding.

ESEU/BESER Projects

- A letter was received from the BESER steering group regarding our progress with various projects. There were some valid points about how we need to ensure that the summer school and ESEU workshops are maintained. Chris King has produced some clear and excellent reports on how to ensure the future of these projects and I am keen to protect them. We must make sure that this continues to be a priority for the charity.
- I received an offer from the Aberdeen Formation Evaluation Society to donate £750 in return for hosting ESEU resources on the ESTA website so that any teacher interested in teaching earth science related topics who is based in Scotland will be able to access these materials. We are in the process of planning how to sort this out.
- Summer schools and Workshop funding needs to be discussed in the context of our own activities but also other bodies, including the Geol Soc and university CPD days. The following questions do need to be considered:

'Are we our own competitor?'

'Are we providing multiple services across the year at different places? Could these be rationalised?'

'Are we diluting our impact?'

**Dan Boatright, ESTA Chair
September 2019**

ESTA Treasurer's Report 2018/19

Income

Income from subscriptions total £8396.57 and shows a decrease since last year (£9792.32). Thanks are due to Elouise Gill, Membership Secretary who has dealt with subscriptions.

An anonymous donation of £500 was made by a long term member of ESTA during the year.

Income from the Publishing Licensing Society (PLS) was slightly lower this year generating £325.94 (£338.83 in 2017/18).

Expenditure

Publications (Magazine and Newsletter) costs are lower (£5748.75) than last year (£7009.60). Costs are lower due to reducing the print run of TES.

Council expenses are higher this year (£3859.15) compared to £2977.21 in 2017/18. Council expenses include the costs of Council meetings, attendance at external events, Secondary meetings and workshops, and the upkeep of the website.

Publicity costs (£1044.50) are mainly incurred by attendance at conferences (Association for Science Education ASE, and Geographical Association) and careers fairs. Publicity costs have reduced this year (£1307.66 in 2017/18). ESTA presence at conferences serves to publicise the association to a wider audience.

ESTA Conference expenditure has reduced this year from the main account as conference expenses are now paid by the Conference account. The expenditure for 2018/19 (£339.80) reflects some attendees paying conference fees into the main account. These fees were subsequently transferred into the Conference account.

ESTA first adopted a Reserves Policy during 2006-7 and a contingency sum is held to bridge cash flow problems and ensure, firstly, continuity in the production of *Teaching Earth Sciences* in the event of a large variation in income and, secondly, payments towards specific future projects under the PT Carr Award scheme. I wish to record that the level of reserves held on the last day of the financial year was £10,000.

I wish to place on record my thanks to Julie Wilson and Rachel Dunn (University of Durham Assistant Professors) for inspecting the 2018/19 accounts. I also wish to thank past ESTA Treasurers Maggie Williams and John Reynolds for their continued help and support with treasuring activities.

At the time of writing this report the accounts for 2018/19 have not been inspected.

**Carole Rushall, ESTA Treasurer
June 2019.**

EARTH SCIENCE TEACHERS' ASSOCIATION – Accounts and Treasurer's Report for 2018-19			
	Current Account		
Income		2017-18	2018-19
	Adverts	£270.00	£120.00
	ESTA Conference	£5153.68	£170.00
	Gift Aid	£0.00	£0.00
	PESGB Conference Sponsorship for 2017 conference.	£6000	£0.00
	PESGB Donation for Educational Projects	£0.00	£0.00
	Promotions	£24.00	£0.00
	Publishers Licensing Society	£338.83	£325.94
	PT Carr Fund	£0.00	£0.00
	Sponsorship/ donations (other than from PESGB)	£2000	£655.05
	Subscriptions - ordinary	£9792.32	£8396.57
	Transfer from deposit	£0.00	£0.00
	Total Income	£23578.83	£9667.56
Expenditure		2017-18	2018-19
	Bank charges	£45.29	£68.88
	Conferences & Publicity	£1307.66	£1044.50
	Council expenses	£2977.21	£3859.15
	Data Registration	£35.00	£35.00
	ESTA Conference 2017/18	£6682.00	£339.80
	Promotions	£0.00	£0.00
	PESGB Projects (completed in 2017-18)	£26.88	£0.00
	PT Carr Award	£0.00	£0.00
	Publications	£7009.60	£5748.75
	Public Liability Insurance	£202.72	£202.72
	Subscriptions to other organisations	£385.00	£465.00
	Refunds	£40.00	£120.00
	Transfer to Deposit account (deposit interest paid into main account until 2016/17)	£0.00	£0.00
	Total Expenditure	£18711.36	£11883.80
	Deposit Account	2017-18	2018-19
	Start	£26353.35	£26485.28
	Interest	£131.93	£149.14
	Transfer in/out	£0.00	£0.00
	End Balance	£26485.28	£26634.42
Total Accounts		2017-18	2018-19
	Start	£32970.21	£37969.61
	End	£37969.61	£35902.51
Total Accounts include a reserve of £10,000.00			

Additional Information

Designated Funds			
PT Carr Legacy - Interest on the invested sum of £3003.05			
21 05 2009 £3003.05 invested for 5 years, Halifax Stepped Income Reserve Fund			
		Interest	Balance
	2009		
2009/2010	2010	£96.10	£1,284.08
2010/2011	2011	£99.06	£1,383.14
2011/2012	2012	£102.73	£1,485.87
2012/2013	£500 awarded to J Marion	£112.92	£985.87
Account closed 17/06/13, balance and interest in current account. closing balance £3123.17			
2013/2014		£112.92	£1098.79
2014/2015		£120.12	£1218.91
2015/2016		£31.22	£1250.13
2016/2017		£29.25	£1279.38
2017/2018		£14.91	£1294.29
2017/2018		£16.91	£1311.2
Total PT Carr Legacy including amount available for awards	£3003.05 + £1311.2 =	£4314.25	

ESTA Conference Account Summary		2017-18	2018-19
Income			
	Sponsorship	£6830.00	£300.00
	Fees received	£12912.00	£9794.00
	ESTA (float)	£1,500.00	£6500.00
	Adverts/flyers	£125.00	£270.00
	Total income	£21667.00	£16864.00
Expenditure		2017-18	2018-19
	Accommodation & Catering	£6801.74	£5566.77
	Insurance	£74.00	£0.00
	Staff fees	£5439.10	£6433.29
	Printing , postage & sundries	£248.95	£536.23
	Per capita charge plus special invites	£1110.00	£0.00
	Transport (paid by St Andrews in 2016)	£575.00	£0.00
	Contributors accommodation & travel	£0.00	£104.00
	Fieldwork expenses (paid by St Andrews in 2016)	£0.00	£0.00
	Total expenditure	£14248.79	£12640.29
Total Conference Account 2018/19			
Bank account starting balance 2018/19 (balance from 2017 conference transferred to main account leaving £6500 for 2018 conference)			£6500
2018 Conference loss (income minus float minus expenditure)			-£2276.29
Future conference costs paid in 2018/19			-£369.60
Account balance March 2019			£3854.11

ESTA Secretary's Report 2018/19

Meetings of ESTA Council

Three Council meetings were held during the year: on 10 November 2018, 9 March 2019 and 22 June 2019. ESTA continues to benefit from the generosity of Keele University who allow Council to use their facilities in the Sustainability Hub for meetings. Council is planning to meet on 2 November 2019, 7 March 2020, and 20 June 2020. Any member interested in becoming a member of Council is invited to attend a meeting to observe business (travel expenses will be met).

Subjects discussed by Council since the last AGM have included:

- Decline in number of schools and colleges teaching geology
- The future of CPD workshops formerly provided by the ESEU and the establishment of Regional Earth Educators
- The future of the Keele Geoscience Summer School for training geology teachers
- The ESTA website and social media channels
- A science curriculum framework
- Inclusion, diversity and equality in Higher Education

ESTA Chair

Members will remember that Dan Boatright was nominated by Council in June 2018 to complete Jo Conway's term of office as ESTA Chair, due to finish at the 2019 AGM. Council's decision was ratified by the membership at the 2018 AGM. However, this means that Dan would have little more than a year in post so, with the agreement of James Speed (the current Chair Designate), Council have asked Dan to remain in post for a second full year.

Rule changes

The rule changes approved by members at the EGM held in the lecture theatre of the Geological Society on 29 September 2018 were accepted by the Charity Commission on 6 November 2018. The proposals broaden the range of membership categories and provide the option of more flexibility in determining the date of the Annual Conference and AGM.

EGU chapter for geoscience education

Dan Boatright and I represented ESTA at a meeting in Coimbra University, Portugal on 26 April. The purpose of the meeting was to develop an IGEO/EGU European Chapter to support geoscience education across Europe. The meeting was chaired by Chris King and also attended by representatives of geoscience education organisations from Portugal, Spain, Italy, France, Germany, Belgium, Brazil and Israel. There was also interest from organisations in Greece, Denmark, Finland, Norway and Austria but representatives were unable to attend. EGU met the costs of transport and accommodation.

Contact details

ESTA relies heavily on email for communicating with our members – 19 emails were circulated to the membership distribution list in the 12 months to June 2019. However, we still lack reliable addresses for a significant proportion of the membership. This often results from people forgetting to update us when they change job or internet provider. If you are not receiving email updates or ESTA News, please get in touch to confirm your contact details.

NB Please note that the email address for the ESTA Secretary has changed.

David Bailey, ESTA Secretary
July 2019
secretary@earthscience.org.uk

ESTA Membership Secretary's Report 2018/19

Membership

Current membership – 280

	July 2017	July 2018	July 2019
Complimentary	22	22	23
Student	7	6	3
Retired	57	58	51
Ordinary / Institutional	196	205	184
Agency	18	20	20
	300	311	280

**Elouise Gill, Membership Secretary
August 2019**

ESTA Higher Education Co-ordinator's Report 2018/19

Outreach visits to schools

In my role as a STEM Ambassador, I organised and led or co-led 7 outreach visits to local Primary schools, ranging from a Year 3 'field trip' to a National Trust property focused on building materials, weathering etc. to a morning carousel of activities looking at natural hazards, including a volcano demonstration. In common with other HE institutions, outreach and public engagement – which has been something of a cottage industry for years – is gradually becoming regarded as an important activity within the University's portfolio. I have 3 more visits booked in September and October 2019.

Higher Education Network Annual Meeting (15 – 16 January 2019)

'Good Practice in Inclusion, Diversity and Equality in GEES Higher Education' Leeds University

This meeting, co-convened with Diversity in Geoscience UK (DiG UK), featured a set of presentations on diversity with a series of workshop sessions. There was an excellent mix of talks and interactive sessions, but the two standout presentations offered unparalleled insights into the experiences of people with mental issues. Their impact was due to the fact that the presenters were people with direct personal experience of autism in the context of earth science HE degrees. Their courage in presenting, and the genuine insights they gave into the difficulties they encountered every day with studying geology, were enlightening and humbling in equal measure. Jacqui Houghton, as convenor, is to be commended for organising such a varied and thought-provoking programme over the two days.

A reminder of the Twitter account for HEN: @GeoISocHEN14. Please follow and RT us!

Most of the presentations from this and past events are hosted here:
<https://www.geolsoc.org.uk/hen-resources>.

OCR Consultative Forum (28 Mar 2019, OCR Cambridge)

I attended this session in OCR's swanky new building and found the workshop on 'What a specification should look like' very interesting. It was fascinating to see examples of specifications from different subject areas, and the range of approaches taken (structure, level of detail etc). A couple of points I particularly noted:

The extensive use made of specifications, not only by many teachers but also, they reported, by students planning their studies and scrutinising what they were being taught
How critical the attendees were of the format of the specifications – especially regarding how opaque they were in places.

The latter point was discussed at length, because it was felt that many specifications were not at all user-friendly (e.g. unexplained jargon, unlinked references to policies or other sections, difficulty of navigating to the main content etc). There was a feeling that the end-users were expected to be experts in reading/writing specifications, rather than simple practitioners: i.e. that the specifications had not been written with teachers in mind. I think this was quite a surprise to OCR... but a critical point to remember for the next foray into specification-writing!

Practical kits for schools: celebrating OU @ 50

To celebrate the 50th anniversary of the Open University, the School of Environment, Earth and Ecosystem Sciences at the OU has put together 50 kits comprising sets of small hand samples of rocks, minerals, replica fossils and OU texts. These kits are being distributed to 50 schools across England, Scotland, Wales and Northern Ireland.

The kits are composed of surplus samples from various past OU modules, with laminated sheets identifying each labelled sample. There is also accompanying material highlighting how samples from the kits could be used to support the relevant parts of the national curriculum – this draws on the excellent 'EarthLearningIdea' website as well as other online resources. Although originally designed for undergraduate study, the open nature of the OU student entry means that these sets would be ideal for A-Level or even GCSE teaching.

GeoWeek 2019

I once again took part in GeoWeek (<http://www.bgs.ac.uk/geoweek/>), by leading a Geowalk around my local town, Buckingham. Around 25 people turned up, with a wide range of ages. The walk was advertised on a variety of channels – Primary School newsletter, flyers in Library and Tourist Info, but I think the main one was posting on the local Facebook site.

Geological Society

The 2019 Earth Science Week (<https://www.geolsoc.org.uk/earthscienceweek>) will take place on 12 – 20th October, over 2 weekends. The theme this year is 'Geoscience is for everyone'. The GSL is encouraging anyone holding events in this week to 'badge' them as ESW events.

**Tom Argles, HE Co-ordinator
August 2019**

ESTA Secondary Co-ordinator's Report 2018/19

Geology teacher training

The 'Teaching and Learning in Geoscience Education' Summer School originated by the Earth Science Education Unit (ESEU) and run by Keele University, ran for its sixth time this year, in late July/early August. In recent years it has been overseen by the BESER Committee, but in future will be overseen by ESTA. It is supported by seven £1800 industrial bursaries. All places are filled, and one extra place has been funded by the participant's institution – so eight science and geography teachers will train to teach A-level geology through the Summer School this year. Keele University has offered to host the Summer School annually for the foreseeable future, through the School of Geography, Geology and The Environment, so now further bursaries for the next three years must be sought. The funders this year are the 'Holloway Bequest of the Warwickshire Geological Conservation Group' (WGCC) www.wgcg.co.uk and the 'Building Earth Science Education Resilience' group (BESER).

Earth science training for geography, science and primary teachers

Training workshops continued through 2018/19 with the support of the BESER initiative, kindly hosted by Oil and Gas UK. 35 workshops ran in 2018/19. ESTA agreed to continue running the workshops providing external funding could be found. The 'Holloway Bequest of the Warwickshire Geological Conservation Group' (WGCC) www.wgcg.co.uk, has very kindly provided £3000 to support the workshops this year and will continue to provide support for the following two years. This will enable existing facilitators to continue running workshops but on a reduced day rate. Meanwhile ESTA is planning to train ESTA members who would like to be so trained, to run the workshops in their local areas so they can act as 'Regional Earth Educators'. More information about this initiative will be available shortly.

The Earth Science Education Forum

ESEF met at the Lapworth Museum on 26th March to review ESEF's future. The meeting concluded that ESEF should continue by meeting twice per year with the same aims as previously, but a broader remit. It should do this by 'piggy backing' meetings onto relevant conferences. The first of these meetings will run from 12.30 – 3.00 on Friday 27 September at the ESTA Conference, Lapworth Museum of Geology, Birmingham University. All interested people are welcome to attend this meeting.

UK Conferences

- At the ASE Annual Conference at Birmingham University (9th - 12th January 2019) ESTA ran a stand and a range of workshops. Similar representation is planned for the ASE Conference in Reading next year.
- ESTA ran a stand and workshop session at the Geographical Association Annual Conference at the University of Manchester (5th – 7th April 2017). ESTA will be similarly represented at next year's conference in Guildford.

European geoscience education support strategy

In support of this strategy:

- Six field officers have been trained, four from Europe sponsored by EGU (France, Italy, Spain and Portugal) and two from 'beyond' (Morocco and India); first workshops have been run very successfully.
- A developmental meeting for representatives of national organisations of geoscience educators, ran in Coimbra, Portugal in April 2019 with representation from the ESTA Chair and Secretary. Two co-Chairs of the new European Chapter were appointed.

International conferences

- The Geoscience Information for Teachers (GIFT) conference attracted more than 85 teachers from Europe and overseas in April 2019 in Vienna, including three UK teachers. A similar conference will run in Vienna in 2020 and bursaries are available for teacher support.
- Future international conferences are planned for the Education section of the International Geological Congress (IGC) in New Delhi, India over 2nd – 8th March 2020, and GeoSciEd IX in Matsue, Japan in 2022.

Earthlearningidea

Earthlearningidea's success is continuing – 320 ideas have been published in English with more than 1000 translations into 11 different languages; there have been more than 4 million downloads so far, currently averaging more than 40,000 per month.

GeoWeek 2019

GeoWeek ran for the second time this year, with a more than 100% increase in activities and participants. There were 76 events, with an increase in participants from 900 in 2018 to 2,200 in 2019. Regional coverage of events dramatically increased. Given the success of GeoWeek 2019, the 'GeoWeek SuperGroup' has set ambitious targets of more than 10,000 participants in ten years and representation in all UK regions within seven years. GeoWeek 2020 will run from 9th – 17th May.

Chris King
July 2019.

ESTA Editors' Reports 2018/19

Teaching Earth Sciences

There was an excellent response from the contributors at the Annual Course and Conference held at the Geological Society in September 2018. Consequently, both issues of Volume 44 contain articles related to the Conference.

Volume 44 (1) was distributed in May 2019

Volume 44 (2) will hopefully be distributed in September 2019

Thanks to all the contributors to the magazine and to the proof readers.

**Hazel Clark, Editor *Teaching Earth Sciences*
23 July 2019**

ESTA News

ESTA News was produced as planned in the year from 1st April 2018. The copy deadlines on 15th May 2018 and 15th November 2019 were met so that *EN 10.1*, the first edition of the newsletter for 2018, was sent to members in mid-June; the second edition (*EN 10.2*) was distributed before Christmas 2019.

Once again, thanks are due to David Bailey for arranging email distribution of these newsletters to ESTA members. Although we still do not have email addresses for all ESTA members, which means that some members did not receive copies of *EN 9.2* & *10.1*, all members should also be able to view current newsletters (and earlier issues) in the members' section of the ESTA website. Members who wish for copies of *ESTA News* to be emailed to them should ensure that the ESTA Secretary has their email addresses.

Each edition of *ESTA News* includes 16 photographs on a geological topic or covering the geology of a part of the world. This year all the images used in the two editions of *ESTA News* were provided by Maggie Williams. If members have sets of photographs that they would like to see used as illustrations in future editions of *ESTA News*, they should get in touch with the Newsletter Editor.

ESTA News has now been produced for 10 years and its format and structure has altered over the years. Items of news and information about new field guides & courses as well as details of workshops, meetings and other geological events are always welcomed for inclusion in *ESTA News*. Please send your contributions to the Newsletter Editor via: hiatus@liverpool.ac.uk

**Maggie Williams, Editor *ESTA News*
July 2019**

ESTA Project Manager's report 2018/2019

During 2018/19 one PESGB-funded project was completed to celebrate Earth Science Week 2018, which ran from 13th to 21st October and had the theme of 'Earth Science in our lives' – a theme that linked to the Geological Society's Year of Resources. This national PESGB-ESTA competition had the title "Economic Minerals Matter" and was based on the idea that Earth Science matters in our lives and focused on economic minerals – the metals, minerals, rocks and hydrocarbons extracted from the Earth by mining, quarrying and pumping.

Economic minerals affect our lives and are used in a wide range of ways such as construction, manufacturing, agriculture and energy supply. The challenge for students was to select an economic mineral that is essential to their lives, to explain why this economic mineral matters, to show their knowledge and understanding of how the chosen economic mineral is extracted and used and to produce an A3 poster that is eye-catching and informative, and which would be understood by students of their own age.

Entries were judged on originality, impact and the level and quality of information provided in the poster. There were four entry categories and the winners in each category were:
Category A Age 9 -11 (Key Stage Two) Andrew Speed, Mundella Primary School, Sheffield
Category B Age 12-14 (Key Stage Three) Alex Jackson, Sheffield High School
Category C Age 14-16 (GCSE) Poppy Down, Sheffield High School
Category D Age 16-18 (A Level) Sabina Smurthwaite, Cornwall College, St. Austell.

Maggie Williams produced the winners' certificates and PESGB provided the prizes. Maria Iredale (at PESGB) liaised with the schools involved to arrange presentations to the prize-winners. Competition results were published on the ESTA Facebook page and a short report was included in the ESTA Magazine (*TES* 44.1). Results were also reported in the PESGB newsletter and on the websites for the Institute of Materials, Minerals and Mining (IOM³) and MinSouth. The competition result was also published in *Materials World* (the magazine of IOM³). This was because Andrew Speed, the winner in Category A, produced a poster that was about iron ore - which was very relevant to the Institute of Materials, Minerals and Mining since this year it is celebrating 150 years since the formation of the Iron & Steel Institute.

Following the success of this competition, PESGB agreed to fund another national PESGB-ESTA competition to celebrate Earth Science Week 2019.

**Maggie Williams, Projects Manager
July 2019**