

THE Aüger

JUNE 2019



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Editorial

We are now concentrating our efforts on organising the 2019 Annual Conference (including AGM) "**Managing Soil Resources to Secure Our Future**" which takes place at the University of Sheffield on 4th and 5th September 2019. The abstract submission deadline is 4th July so you have less than a month to submit your paper for consideration as part of the scientific programme. Don't forget to help spread the word about the conference. There is an electronic flyer for download on the website. Feel free to circulate to all your contacts. It would be fantastic if we can beat last year's attendance numbers!

It is the society's second visit to Sheffield in 2019 having used the venue for the successful Early Career Researcher Conference in April. You can read more about the event later in this edition of the Auger as well as enjoy some photographs from the two days. We were extremely pleased to welcome our **Patron** HRH The Duke of Gloucester KG GCVO on the first day to learn about some of the research currently being worked on by our early career members.

Later this month the society will be attending "**Cereals 2019**" at Boothby Graffoe, Lincolnshire UK. Cereals is the UK's technical event for the arable industry and it is the first time the society has had an exhibition presence at the event. Please come along and say hello if you are attending. We will be sharing some space on the BASIS stand.

We will also be launching the 2019 Members Questionnaire later this month so look out for an email invitation to participate. We had a good response rate in 2018. Your feedback helps Council to focus on how the society best serves its members.

I hope you will enjoy this edition of the Auger.

📍 **Ian Brown**, Executive Officer exec@soils.org.uk

Cover image: 2019 ECR delegates pictured with the Patron at the University of Sheffield, 16th April 2019

*Our mission is to promote
the study and profession
of Soil Science*

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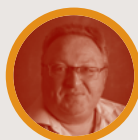
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President's Welcome

Professor Sacha Mooney President



Dear Members...

It is with a huge amount of pleasure and pride that I sit down on this gloriously sunny afternoon in May to write my first President's editorial for the Auger. As a society member for over 20 years, I have read the Auger since its conception and never imagined that I would be writing for it as President.

Of course I have been preparing for the role for a while now having served two years as President-elect, and so I have to start with special thanks to the excellent mentorship I have been provided with over this time by both Liz Baggs and Wilfred Otten (the latter continues to be a fantastic source of help and support as our Outgoing President). You may not know that I served on the BSSS Council some years back and thus I had the pleasure of observing and working with a number of our excellent past Presidents including David Hopkins, Keith Goulding, Helaina Black and Phil Haygarth so it's fair to say that back in January I felt ready for the job! And so it is now just over four months since I took over the reins from Wilfred and it has been without doubt both a whirlwind and a baptism of fire! Though also hugely rewarding and often quite exciting, so please allow me to update you...

Journals: While the recruitment process for a new Editor in Chief for European Journal of Soil Science began in 2018, come the New Year it was our priority to conclude the process and we were delighted to appoint Jenni Dungait to the role in March. As many of you will know the world of academic publishing is changing, and the pace at which it is doing so is accelerating rapidly and so I was very pleased to have someone as experienced, energetic and innovative as Jenni to help guide us through what will almost certainly be some challenging times ahead. At this same time we also got to say thank you and farewell to Margaret Oliver as the outgoing Editor in Chief at our most recent Council meeting in March held in Leicester. Margaret's dedication to the role was outstanding and we were very grateful she agreed to extend her time in the post slightly to ensure a smooth handover with Jenni.

Even though Jenni has only been in post a few months she has already been very busy. Those of you into social media will have hopefully noticed EJSS recently joined twitter [@ejsoilscience](https://twitter.com/ejsoilscience) and the account has already been very active 'tweeting' brief commentaries of some of the favourite EJSS's papers of BSSS members. We are also delighted to welcome Olaf Schmidt to the Deputy Editor Board to represent the area of soil biology. As for Soil Use and Management, our current Editor in Chief, Mike Goss will stand down from his role at the end of this year so the recruitment process for this post will start shortly. Stay tuned.

Meetings: As you know organising and hosting meetings is a large part of society life and since the New Year the focus has been on the delivery of the Early Career Researchers (ECR) Conference in Sheffield in April. Organisation of this year's event was led by our Early Career Representative, Dan Evans from Lancaster University, who without doubt puts myself and most other academics I know to shame when it comes to organisational skills. Supported by our office team, Dan and his colleagues put on what I have been

told is one of the best ECR events we have ever had with almost 80 attendees so congratulations to them all. As you may have seen, we were delighted that our Patron, HRH The Duke of Gloucester KG GCVO, was able to attend part of the event to meet with the researchers and listen to some of the presentations. One of the highlights was the Duke signing a letter to be placed inside a time capsule that Dan and colleagues have been arranging, to be opened as part of our 100th year celebrations in 28 years' time. I think this is a wonderful idea and look forward to sharing more news next time concerning the contents and the burial location. The Duke also gave a speech (of which a short clip is available on our website) and it was great to hear him motivate our ECR's stating "they are in the

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President's Welcome



frontline of the battle against the effects of climate change”, rousing stuff! Finally on ECR matters, Dan is due to step down at the end of the year so the search is on for a new ECR representative. In the last few months I have seen not only how important this role is for the society but also how rewarding it can be the ECR rep themselves. If you are interested in the role, or know someone who you think would be well suited, please contact Dan (student@soils.org.uk) as soon as possible. So now our attention turns to our Annual conference on the 4th and 5th September, also to be held at the University of Sheffield. The tradition within the society is that the lead for organisation comes from our past President so Wilfred is in the driving seat and is currently putting together a great programme under the heading of **‘Managing soil resources to secure our future’**. A new addition to the programme this year is the President’s lecture, which I slightly amended to the President’s ‘invited’ lecture (did you see what I did there?). And I am absolutely delighted that Professor John Crawford from Rothamsted Research will be giving our first one, entitled *‘Linking Soil and Human Health’*. John is a fantastic speaker and it promises to be one of the highlights for sure. You can find details on registration and abstract submission on our web-page and I look forward

to welcoming you in Sheffield. One challenge I have set myself over the next two years is to try and see if we can raise attendance at our annual meetings so if you have ideas for this I would love to receive them (please send to president@soils.org.uk). Alongside our annual meeting, we also have the meetings run by our regional groups. Since becoming President I have been observing much more closely the work our regional groups undertake, and I can’t help but be incredibly impressed and proud of the work they do promoting our discipline, often across an incredibly wide range of interested parties. I am hoping to visit as many of them as I can in the next two years and will be starting that with a local one in the Midlands, on the 29th May at the Allerton Research & Educational Trust at Loddington, Leicestershire. If you haven’t yet engaged with your regional group then I strongly encourage you to do so, I promise you won’t regret it. Of course, now that Rio in August last year is a distant memory, our attentions turn to Glasgow 2022 and the World Congress of Soil Science. In February I got to visit the venue for the conference with some other society members who are part of the working group charged with organising the event and Wow! What a venue the SEC Glasgow is. Led by our incoming President Bruce Lascelles, plans are now

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Those of you that know me will know that I frequently say ***'this is the most exciting time ever to be a soil scientist'***. It's something I truly believe and it seems as the years go by the more relevant this is and the more people are starting to recognise it... ”

in full swing for plenary speakers, opening events and conference tours etc. We really have an exciting few years ahead of us all as everything slowly starts coming together. As part of the trip to Glasgow, we (I should really say Ian) also identified an excellent venue to host our Annual Conference next year which will coincide with a visit from IUSS to check that everything is on track for the main event in 2022. More details on that next time...

Other stuff: Space limits prevent me from updating on all the other various activities going on at present within the society, plus I need to save some material for next time (just in case things quieten down) but there are few other exciting things to mention. Firstly, and about time some of you might say, but we are at the start of the process to develop a new society website. This will be prioritised in the coming months so look out for an update on that next time. Secondly, Ian and I have been spending some time meeting up with other societies to share best practice and also learn how they operate, how they support early career researchers, maximise attendance at annual meetings etc. It's been a real eye opener and we have learned a lot which I will hopefully share with you at the Annual Conference.

There was also a very nice visit in February with Wilfred and Bruce to Kensington Palace for morning tea with our Patron (to introduce the incoming President) which seems to the sort of thing that causes my mum to say she is very proud of me more than any other work related activity. Which leads me on to thinking about life as a soil scientist. Those of you that know me will know that I frequently say *'this is the most exciting time ever to be a soil scientist'*. It's something I truly believe and it seems as the years go by the more relevant this is and the more people are starting to recognise it. I cannot remember another time in the last 20 years when soil science was more in the minds of the public, more recognised as important by policy makers and more featured in our mainstream media (I hope you all heard our fantastic council member Dr Jacqueline Hannam explaining how the mismanagement of soils can contribute to climate change on BBC Radio4 last month). With this in mind I want to say thank you to those of you who have supported the Society in responding to the many requests from all the various groups with an interest in soils that arrive in the office every week and attended meetings and working groups on behalf of the Society over the last few months, it is really very much appreciated.

And finally: as it happens, in non-soil related news, I am in a fantastic mood today, which is probably why this editorial is so long. This is mainly because last night, the football team I supported since a young boy, made it into the final of the Champions League (the premier football competition for teams from Europe for those not interested in football) for the first time in the club's 137 year history. It was very dramatic with the winning goal coming with the last kick of the game. The team performance was all about spirit, determination and a desire to succeed which is reflected in the club's motto which is *'audere est facere'* which I am reliably informed means *'to dare is to do'*. As it happens I think this is a rather splendid motto as I interpret it to mean that you have to think big, believe in what you want to achieve and go for it. I appreciate I am straddling the line of 'cheesiness' here but my aim is to bring this motto to my time as President, we have much to be proud of with respect to our society, but what about the future? What can we do better? Where should we be aiming? What could we achieve as a society with ambition? Of course, I have my own thoughts and I have been discussing these initially with Board and Council. But what about your thoughts? I would love to hear them, so if you have a moment please drop me a line at president@soils.org.uk

Thanks for reading this far.

With Best Wishes

● Professor Sacha Mooney, President,
June 2019 president@soils.org.uk



January saw the biennial changeover in the Professional Practice Committee (PPC) with myself taking over as chair, Anna Becvar becoming past chair and Mike Palmer new incoming chair. Stepping into Anna's boots (her footwear of choice I think), it has already been a busy start to my PPC chairship.

Research practice representative

Aside from the changes in the PPC chairs, I am pleased to say that after quite a long search we now have our first research practice representative, Jacqueline Stroud from Rothamsted Research, joining us. The core remit of the research practice representative is to define research practice competencies relevant to soil science research. Jacqueline brings experience in managing research projects, engaging with industry and media and, carrying out science education and so is well qualified for this role. I am sure Jacqueline will also bring plenty of energy and contribute to wider PPC activities. Welcome Jacqueline!

PPC events

The PPC has picked up from where it left off last year in developing professional member focused events and building strategic alliances with other societies/organisations to jointly host events. Two such events have already been run in 2019. Firstly, on the 18th February, we held a successful free half day event co-hosted with the Institution of Environmental Sciences (IES) on **'VOCs in soil: investigation to remediation'** at Heriot-Watt University in Edinburgh. The event brought together membership from the societies on a 'hot topic' — both societies are now considering opportunities to collaborate on another event on land condition again next year. Secondly, on the 19th March, former past PPC chair Paul Newell-Price organised a one-day event on behalf of the BSSS co-hosted with the British Geological Society on **'Improving grassland performance: managing soil structure & organic matter'**. These two events show the breadth of soil science interests in the society membership. We are looking to organise at least one other event in the coming months so check the website and society email updates. Otherwise, if you have an idea for an event please get in touch.

Working with soil

As ever Dick Thompson is working tirelessly to keep driving our fantastic Working with Soils programme. Newly updated competency documents were uploaded to the website last year and can be accessed as free download via the following link (<https://soils.org.uk/working-soil-complete-set-download>). The BSSS website events calendar is also populated (at the time of writing) with courses **'Exposing and Describing a Soil Profile'** and **'Agricultural Land Classification'**. The next ALC course scheduled the 20th–21st November. Early Career members are reminded that they may apply to the Brian Chambers Fund (<https://www.soils.org.uk/bcsf-brian-chambers-soils-fund>) to support attendance on these training courses.

Making the most of your membership

My final comment for this issue is to remind you to make the most of your membership in accessing full text articles of **European Journal of Soil Science** and **Soil Use and Management** via the BSSS website members login page. Access to these journals (outside of Universities and research institutions) is a huge benefit of your membership — one I myself was reminded of last week, so here I am reminding you also.

📍 Tom Aspray, PPC Chair ppc@soils.org.uk

Regional Group Update

NORTHERN SOILS NETWORK (NSN)

A meeting focusing on *Dimensions of Natural Flood Risk Management*, held at Newton Rigg College on 28th November 2018 was attended by 20 people. The morning sessions provided stimulating presentations on The Effect of Surface Permeability and Streamflow Response (Nick Chappell & Ethan Wallace, Lancaster University), Landscape scale mitigation of diffuse pollution and flood risk: where to act? (Sim Reaney, Durham University), Soil management and flood control (John Quinton, Lancaster University) and Storm Desmond: Nutrient and sediment export and what does this mean for the future? (Phil Haygarth, Lancaster University). The field-based session in the afternoon led by Andy Dyer (Senior Farming & Conservation Officer, Eden Rivers Trust) provided participants with the opportunity to learn about the work of the Eden Rivers Trust and to see demonstrations of equipment used to minimise the impact of land management on flood risk. The organisers were most grateful to Andy and the ERT for their support and superb organisation for the meeting. Feedback from participants on the day was overwhelmingly positive.



Photo courtesy of Professor John Quinton

Can you help with Open Farm Sunday?

This year the series of events takes place on Sunday 9th June. Go to <https://farmsunday.org> to see if an event is being held in the Northern Soils Network area and volunteer some soil-based activities.

Welcome to the following new Members:

Associate Members

Eddie Bailey Peter Exon
Chris Provan

Early Career Members

Xavier Albano	Gerardo Aldana
Maysaa Alhar	Jade Allen
Naeema Alnofeli	Karrar Arab
Michael Asigbaase	Emma Askew
Lucy Bates	James Blades
Luke Briggs	Erik Button
Matthew Carter	Emma Chapelhow
Emily Cooledge	Ifeoma Edeh
Katy Faulkner	Caio Fernandes Zani
Matias Fernandez	Henny Folorunso
Thomas Fungenzi	Yang Guo
Eleanor Harrison	Rachel Hasler
Mahmuda Islam	Ella Jeffrey
Tazeen Khan	Tamsyn Kiss
Amy Lewis	Jan Peter Mayser
Alex Mitchell	Thomas Murphy
Ana Natalio	Muhammad
	Mohsin Nawaz
Obinna Nworie	David Oluwadare
Ikenna Osumborogwu	Kirsty Paterson
Safirun Pervin	Maria Pimenta da Costa
	Ocampo
Jonah Prout	Zach Reilly
Laura Reinelt	Hilda Gerald Sanga
Sarah Shepperd	Vincent Smith
Prateek Srivastava	Bálint Szüle
Maud van Soest	Jennifer Veenstra
Samuel Walrond	Muhammad
	Ahmed Waqas
Bid Webb	Coll Williamson
Catherine Wiltshire	Sugandha Kumar

Full Members

Samuel Partey Binoy Sarkar
Kumari Rajapaksha

Society News

We are currently looking for a Chair for both the Northern and South Eastern Regional Groups.

If you are interested in applying for the role, or wish to find out more about what is expected, please contact **Ian Brown** in the society office.

SOUTH WEST ENGLAND SOILS DISCUSSION GROUP (SWESDiG)

January saw in our first local soils social event of the year in Hullavington, Wiltshire on 30th January at the Hullavington Arms, The Street, Hullavington, Wiltshire SN14 6DU United Kingdom. The event was an informal get together after work, where we got to know other members, some of which we don't see at other events always. We shared how we use soils in our day jobs and had a game of skittles! A total of 5 people came for the skittles. It was a fun event and we all felt it would be good to do again. Locations will depend on where members live, so if you have not already responded to Hannah's request for member locations please do so at SWSDG@soils.org.uk We would like to map member's locations and arrange events near you next time!

ENGAGING WITH ALL – Soils through the National Nature Reserves Cotswold Commons and Beechwoods National Nature Reserve 28th March 2019

Ahead of the World Congress of Soil Science in 2022 the British Society of Soil Science is keen to increase awareness of soils and engage with the general public.

National Nature Reserves (NNRs) were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. There are currently 224 NNRs in England with a total area of over 94,400 hectares - approximately 0.7% of the country's land surface. Natural England manages about two thirds of England's NNRs. There are 17 million visitors each year.

Most NNRs offer great opportunities to schools, specialist interest groups and the public to experience wildlife at first hand and to learn more about nature conservation. There is an opportunity for the Society to work with NNRs to offer a variety of soil experiences tailored to a particular NNR to raise awareness of soils, their functions importance and story in the landscape.

In 2012 SWSDG explored and members helped draft guidance for local geodiversity groups to designate sites for soils. However, its complexity has meant little progress has been made. A more flexible approach is needed to encourage development of soil experiences across a variety of settings. This meeting explored the innovative opportunities and issues faced using the NNR estate, but the concepts could equally be applied anywhere. There was a good mix of folk at the meeting, including conservationists, researchers, consultants and government.

We heard from Ben Le Bas, who leads on NNRs within Natural England, and has an open door to engagement and exploring opportunities. NE is under extreme financial and resource constraints so partnership working is key. [The NNR Partnership Strategy \(2017\)](#)¹ fully supports this approach. We heard about the geological [Wrens Nest NNR](#)² at Dudley which is a great example where public engagement activity has had great results through 'Telling the story'. Ben also encouraged us to get involved with the [Long Term Monitoring](#)³ on NNRs which includes [soils](#)⁴. There are annual opportunities in the autumn to take part in the fieldwork, so do consider offering a day or two of your time (contact Matthew.J.Shepherd@naturalengland.org.uk).

¹ <http://publications.naturalengland.org.uk/publication/6291868196798464>

² <http://blackcountrygeopark.dudley.gov.uk/sites-to-see/wrens-nest-national-nature-reserve>

³ <http://publications.naturalengland.org.uk/publication/4852904640380928>

⁴ <http://publications.naturalengland.org.uk/publication/6457572973871104>



A full list of ideas discussed will be presented to the Education Committee for further consideration and Council members who attended will pursue further opportunities for discussion through that channel. If any members have ideas for engagement opportunities, or have existing examples then please contact SWSDG@soils.org.uk

Next, Ian Rugg from the Welsh Government and WSDG chair explained how the World Congress provides drivers for public engagement. He also started off a series of talks on existing examples of public engagement, by looking at pits and trails. Tegan Darch from Rothamsted Research shared her experiences of public engagement during Open Farm Sunday and Rob Parkinson introduced the idea of soil locations rather than trails, based on work at Haytor and Yarner in Devon. Tim Harrod developed the idea of exposures further and encouraged us to link the soil with stories, be it the landscape or military history, for example. These examples fueled a varied discussion around other examples of engagement, ideas of how the Society should be proactive in engagement or education and how important it is that we capture all the existing activity in a central resource.

In the afternoon we went out onto the Reserve with the Reserve Manager, Kate Gamez who explained the reasons for designation, visitor profiles and some recent work to understand the local soils in relation to replanting following ash die back and to encourage rare red helleborine (a Section 41 species under the 2006 Natural Environment and Rural Communities (NERC) Act) which used to be found in certain areas of the woods and is known to be able to lie dormant for decades. There was also the opportunity to examine two soil pits on Elmton 1 and Evesham 1 soils found in different parts of the Reserve, whilst the discussion on engagement and innovative ideas continued.

Future Events

SWSDG Social Event – Family Ramble

Event date: **14 Sept 2019**

Event venue: **Yarner Wood with Rob**

We are hoping to arrange a family ramble in September on Dartmoor with Rob. If you are interested in attending, please contact SWSDG@soils.org.uk

Autumn committee meeting

Event date: **November 2019**

Event venue: **Bridgewater**

We will be meeting as a local group in Autumn to decide 2020 plans. If you have any ideas, please share them with us and we will try and incorporate into events etc.

Scottish Soil Discussion Group

Dr Benjamin Butler has joined the committee as the new Early Career Representative for Scotland.

Early Career Researcher:

Update from Dan Evans

I am writing this on one of those days when the skies decide to 'spring clean' the Earth. Strong gusts are vacuuming the dust from the country lanes that run like skirting boards around green carpets of cropland and pasture. Clouds unite to form impenetrable ceilings of lead from which millions of droplets are preparing to polish the rooftops. As I write, my train carriage window is becoming freckled with a shimmering galaxy of watery stars. Is there anything more inspiring than a clouded day? Clouds are the plot ideas held in suspension by the sky, soon to become the future chapters of our rivers and streams, lakes and oceans. When we see clouds, we are gazing into the future...

ECR Conference

When I opened the BSSS ECR Conference in Sheffield and gazed out over the faces of nearly eighty delegates from over thirty institutions, I realised that I was, once more, looking at the future. From that assembly would evolve the unpenning chapters of the future of Soil Science. As a Society we can be comforted in the conviction of our Early Career Researchers to address the issues and challenges that confront the century before us. We witnessed, in oral and poster presentations, a myriad of novel and impactful research agendas; issue-focussed, evidence-based and already enriched by the virtues of cross-fertilisation and interdisciplinarity. In our networking breakout sessions, and our photo quiz at the local Botanical Gardens, I witnessed the aggregation of new friendships and collaborations as well as the nurturing of existing networks and communities. I was inspired to hear many fascinating discussions unfolding in our two workshops — one on Careers and one on the Viva experience — spotlighting, if nothing else, that our Early Career Researchers are invested not solely in their research but in their career development too. And that, albeit one of the lesser-cited ingredients of a healthy Soil Science, is essential.

I congratulate **Katy Faulkner** on winning the *Best Poster Presentation* and **Thomas Murphy** who won the *Best Oral Presentation*, and thank all of those who helped me in convening the ECR conference: the chairs, the panel experts, the Office team, the Presidential team and, of course, the unfaltering beacons of support that are my ECR Regional Representatives. Leading the ECR Conference was an unparalleled honour, a privilege, and a particular highlight of my time as National ECR Officer.



📍 Dan Evans, National ECR Rep
student@soils.org.uk 🐦 @DanEvansol

ECR Regional Representative:

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South East England Emily Dowdeswell-Downey
.....

South West England Rupert Goddard
.....

Midlands Ernesto Saiz Val
.....

Wales Paul George
.....

Northern Kirsty Elliott
.....

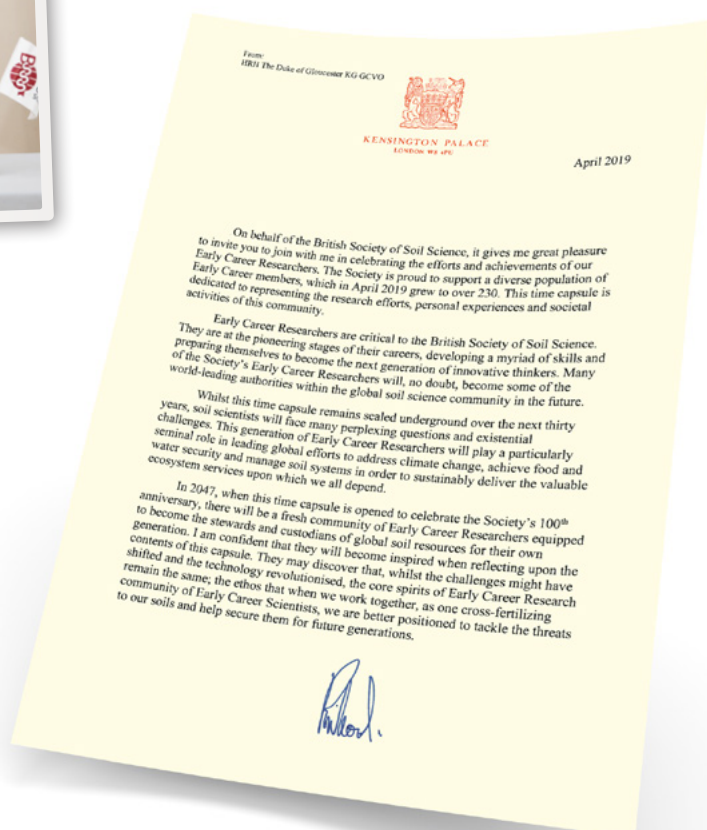
Scotland Benjamin Butler



BSSS ECR Time Capsule

Our Society Patron, HRH The Duke of Gloucester KG GCVO, visited the ECR Conference to view oral and poster presentations and to officially launch the BSSS ECR Time Capsule. This will be on World Soil Day 2019, and we hope many of you will be able to watch it being lowered into the soil. The capsule will be retrieved at our Society's 100th anniversary celebrations in 2047. More details on these events will be broadcast in due course.

The Time Capsule will, we hope, capture your experiences of being a BSSS Early Career Researcher. We are ideally seeking a diverse array of photographs, anecdotes, memories, papers, thesis acknowledgements, and indeed anything else you feel sums up your early career experience.



There are two ways to 'deliver' your contributions:

- 1 You can send your items digitally to me (Dan) by emailing student@soils.org.uk
- 2 You can post your items to the following address:

Mr Dan Evans, c/o: British Society of Soil Science, Building 42a, Cranfield University, College Rd, Cranfield MK43 0AL

We would encourage you to indicate your name on either the item itself or on a slip of paper attached to the item, and maybe your institution.

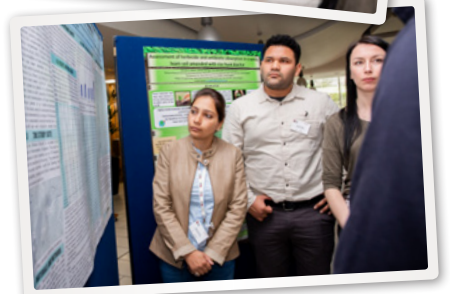
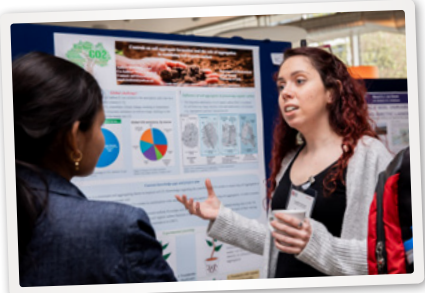
More details are available on the Student Forum page of the [BSSS Website](https://www.bsssoilscience.org.uk).

The deadline to send in your contributions is the 31st August 2019. If you have any questions regarding the Time Capsule, please don't hesitate to email me on student@soils.org.uk

ECR Conference

Sheffield, 16th–17th April 2019

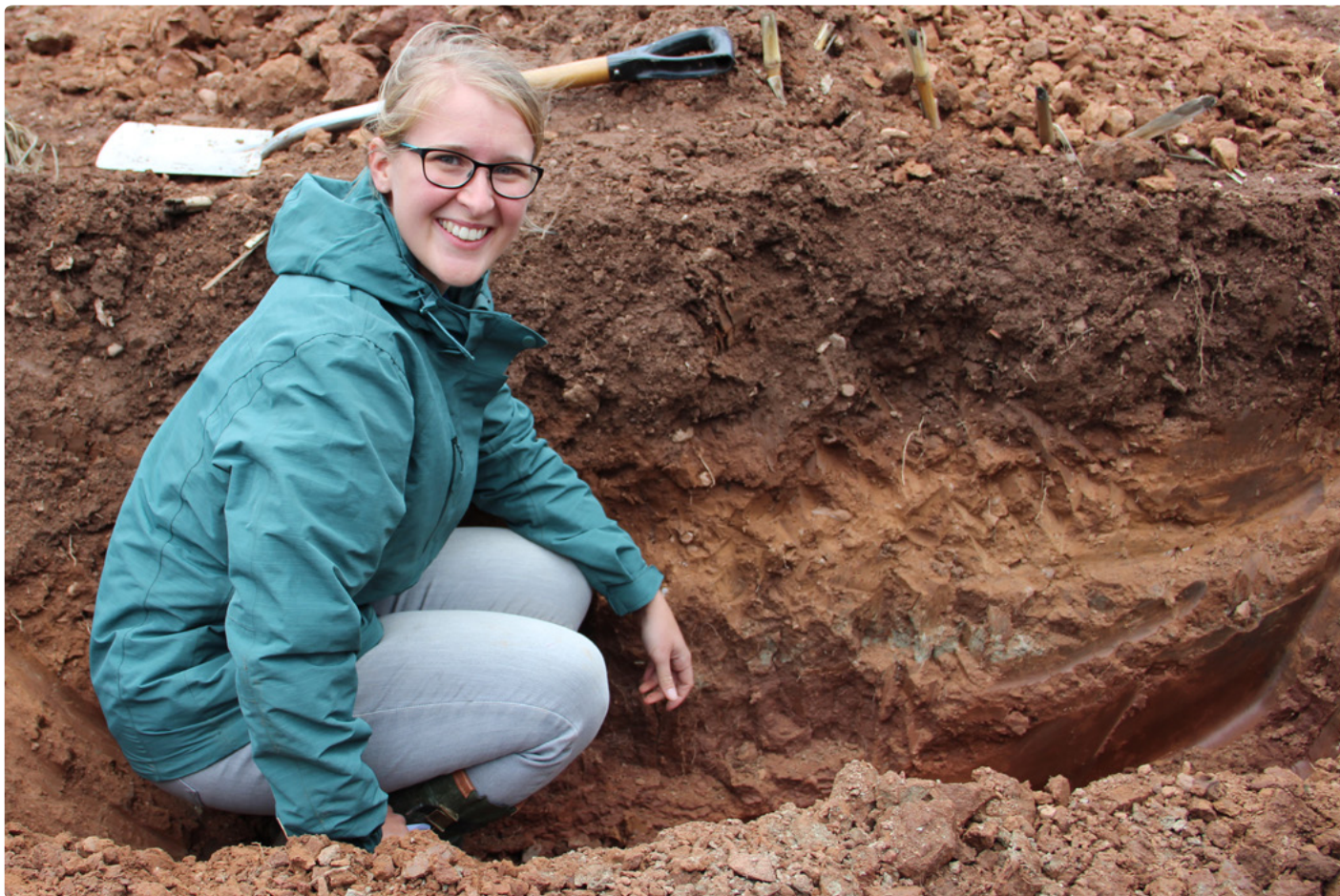




Meet a Soil Scientist

Joanna Uglow

Resource Protection Adviser



Introduction

I've always loved outdoor activities and immersing myself in landscapes, whether it's walking, white water kayaking or wild camping. I studied Geography at university because of my passion for the environment and this led to a career working with soils which fulfils my interest to work outdoors.

I also have a bit of a creative streak and always have a few projects on the go at any one time. This year I set myself a challenge of completing a painting every month, with the intention of creating a calendar for next year.

Can you describe your work in general? And what are you currently working on?

My career started at a small soil science consultancy where I learnt soil survey methods. It was great to work in a small team with people who were as passionate about soils as me.

I now work for FWAG SW and most of my time is spent on natural flood management (NFM), most notably on the Hills to Levels project in Somerset. NFM is very much about the relationship between soils and water, adopting techniques to 'slow the flow' to reduce flooding and erosion. I work with farmers to improve soil and land management, as well as install in-stream and in-field measures that retain floodwater or trap sediment.

One of FWAG's charitable aims is to teach children about the environment by facilitating farm visits for schools. I have been lucky enough to get involved with this and have developed a fun soils activity which looks at what soils are made of and why they're so important.

List 5 things that make your job interesting...

1. **Getting to know landscapes well**
2. **Meeting interesting people**
3. **Opportunity to work with farms over a long time, which is rewarding when you see changes happen.**
4. **Working outdoors throughout the seasons**
5. **Opportunity to work both from an overview perspective (e.g. catchment scale scoping) and a very detailed scale (e.g. resolving very specific issues)**

Can you recommend any information resources that have been useful for you in your work?

The three soil resources I use the most are:

- Soil Association and Soil Series pages on the Landis website.
- Soils and their Use in South West England — books covering other regions available
- Soils and Natural Flood Management (<http://wrt.org.uk/wp-content/uploads/2017/12/soils-and-nfm.pdf>) — this was written for Devon and Cornwall but there is lots of useful information that can be applied elsewhere

For more agricultural topics, the AHDB have a whole host of useful information and downloads on their website <https://ahdb.org.uk/>

Not an information resource, but worth a mention...
Neutrogena Norwegian Formula Hand Cream.
Sorts out dry hands after working with soil.

Could you tell us an interesting fact?

A 'bag for life' should be reused about 35 times before it is better than a single use carrier bag, because of the extra plastic used to make them stronger.

What is the most exciting or interesting thing you have ever done?

In 2017, I went on a 240km kayaking trip along the Sun Kosi river in Nepal. The river was a combination of intimidating rapids, confusing whirlpools and beautifully calm flatwater sections. We paddled past waterfalls, temples and remote villages and wild-camped on riverside beaches. It was fantastic to travel by river and to see how its landscape changed along the way; from arid conditions, to the misty 'jungle corridor' and finishing on wide, flat plains. Embarking on an 8 day trip felt like a huge commitment at the time; it was a real sense of achievement when we finished and I would love to do it all again.

Who would you most like to have dinner with, and why?

Marianne North: botanical artist and explorer (1830–1890). I would be fascinated to hear her accounts of discovering new plant species, meeting tribes and visiting remote places in a time when foreign travel was not commonplace. In a world that is full of social media and with easy access to spectacular photos, it's hard to imagine what it would have been like for her exploring new places. I'd also love to hear what it was like being a female explorer in a time when it was a very male dominated profession.

The Marianne North Gallery at Kew Gardens is well worth a visit.

What advice would you have for anyone looking at a career in soil science?

Get digging! If you're like me, and you learn through doing, I would suggest getting out there with a spade and auger to explore the soils. This will give you a good understanding of texture, structure, how soil profiles vary with habitat/land use, slope and landscape. With these foundations, it'll make the science much easier.

Grants

As part of the society's charitable objectives each year £20,000 is set aside to be made available for the four types of grants offered to members or Institutions. These are broken down as follows;

Student Conference Grant

This grant is available to early career members of the Society to help fund attendance at conferences applicable to their research field.

This grant is only available to Student Members of the British Society of Soil Science.

Please note that this grant can only go towards attending conferences or workshops and not courses or tuition fees.

Field Equipment Grant

This grant is designed to enable institutions to buy field equipment to aid in the instruction and understanding of soil science. It is suitable for Primary or Secondary schools as well as Further Education Institutions. **Grants can be claimed for up to £1,000**

Innovation Grant

This grant is to help teachers to develop creative and innovative ways of incorporating soil science into lessons. The aim of this grant is to promote good practice in teaching soil science and to support teaching that is innovative, inspiring and intellectually stimulating.

Money is available to enable teachers to develop and resource innovative teaching and learning activities and/or to undertake research to evaluate methods of teaching Soil Science. This can be achieved in many different ways and can include projects based in or outside of the classroom.

It is suitable for Primary or Secondary schools as well as Further Education Institutions. **Grants can be claimed for up to £1,000**

David S Jenkinson Fellowship

Celebrating the research of Dr David S Jenkinson FRS, this fellowship is available to support early career postdoctoral scientists from the UK to travel to and collaborate with an overseas organisation.

Through this, we hope to build enduring scientific relationships, to enhance career development, and to promote UK soil science. It is offered annually to an early career postdoctoral scientist (within their first three years).

This grant is available to early career postdoctoral members of the society who are resident in the UK.

The value of this grant is up to £5,000

The society also manages the **Brian Chambers Soils Fund** which was established to provide grants to help fund the learning and development costs of students and early career scientists. Encouraging the skills and knowledge needed to manage soils effectively to meet the demands of modern farming systems is essential for the future sustainability of agriculture.

This grant is available to people at the early career stage and there is no maximum value attributed to this grant funding.

In 2018 the Society received 35 grant applications totalling £20,786.

27 grant claims were approved totalling £15,238 with the other 8 being declined.

As 2018 was a World Congress of Soil Science year (these are held every 4 years) the society made available additional funding to help members attend the event in Rio de Janeiro, Brazil. This was the largest area of grant funding allocated in 2018 and was given to members who had secured either an oral or poster presentation at the World Congress to share their area of research.

Each grant recipient is expected to provide a short report of how the funding has helped them achieve their aims. This is usually delivered within 3 to 6 months of the grant funding being paid to the recipient. These are published on the website (www.soils.org.uk/grant-award-reports).

Jana Darmovzalova was awarded £500 Student Conference grant. In her report to the society she commented:

“ My PhD research focus is on transport processes controlling uranium uptake by plants, and I am mainly interested in radionuclide soil contamination, specifically risk assessment and soil clean up. As my thesis submission date was approaching, the 3rd Radiological Protection Week in Rovinj offered a perfect opportunity to present all findings of my research and to meet scientist working in the field of my career interest. I have personally benefited from attending the conference by widening my horizons in terms of possible career opportunities outside the academic research, which has been my intention from the beginning of my PhD. At the same time, I was pleasantly surprised to receive an interest in future collaboration from one of the research teams most cited in my thesis.

I would like to thank BSSS for supporting my attendance but also for all the great work the Society does to promote soil science. ”

Perth Grammar School was awarded £990 to purchase some specialist field equipment for their students to take out students at the Grammar and take part in soil field work.

The school told us:

“ The Staff and pupils at Perth Grammar would like to thank you for the grant that has enhanced the teaching and learning of soils within Geography. The pupils dug pits, described and compared different soil profiles, took samples and learnt about responsible sampling (filling in the holes). Pupils were then able to take samples back to school and complete a series of tests: moisture content, organic content etc. The results were then used for the pupil's higher assignments.

This year Perth Grammar was able to diversify and ultimately improve our Higher Geography and Environmental Science field work.

This has been one of the key factors in the increased uptake of Geography at Advanced Higher which has previously not run due to low uptake. Having the equipment to complete soils field work also enabled staff to improve classroom lessons in soils, including lab techniques for moisture and organic content. An exciting consequence of the grant was the ability to start up a gardening club. The group have only just started working on the garden and are hoping to grow a wide range of crops and flowers. This academic year 45 pupils, across Geography (Higher and Advanced Higher), and Environmental Science, will be able take part in soils field work. For our Advanced Higher pupils it has provided an increased opportunity for their geographically study, not only do they have access to a wider range of equipment, but the practical experience of soils during their higher course gave them a greater understanding and more confidence in completing soils field work and lab analysis independently. ”

Jasmine Burr Hersey received a £500 World Congress Grant and provided the following as part of her report:

“ From a personal perspective I found the conference extremely interesting- having the opportunity to listen to talks from a number of influential names in soils science on important topics with a global perspective was really exciting and not something I have experienced before. The conference enabled me to connect with a number of research scientists in my field of XRay Computed Tomography ranging from students to professors and I made a number of connections who I have been in touch with since the conference ended to share ideas and methodologies. The conference provided a great platform for engagement with early careers researchers from both the UK and other countries and I made some links with new universities who also have X-ray facilities. ”

Distinguished scientist celebrates 90 not out!

Arthur Edward “Johnny” Johnston studied Chemistry and Agricultural Chemistry at University College North Wales, at Bangor, from 1947–1950 and then did his National Service in the RAF from 1951–53 in Wolverhampton.

He was appointed to his first position almost 66 years ago at the world-renowned agricultural institute Rothamsted Research on 2nd March 1953, in what was then the Chemistry Department. In his renowned career, Johnny has carried out very impactful research on subjects as varied as the importance of soil organic matter and its important influence on soil structure for crop production, the supply and bioavailability of the nutrients nitrogen, phosphorus and potassium, and the inputs, losses and fate of inorganic and organic pollutants in soils.

He is a strong champion for the unique Long-term Experiments at Rothamsted which are now a BBSRC National Capability, used by researchers internationally and some 80 research papers are published every year from this unique resource for agricultural and ecological research. He has collaborated extensively with other scientists in universities and institutes, both in the U.K. and abroad, with advisory organisations and with industry and has established a world-wide reputation.

He “retired” as the very successful Head of the Soils and Crop Production Division at Rothamsted, on 31 March 1989 — almost 30 years ago! After retiring, he was immediately appointed as a Lawes Trust Senior Fellow at Rothamsted. He still works three days a week and has continued producing papers and other scientific contributions. His present Head of Department, Professor Steve McGrath said,

“*Johnny is still so productive and impactful. For example, we heard only last week from the Editor in Chief of the prestigious international journal Global Change Biology that a paper on the critically important issue for the 21st century of increasing soil C stocks by Johnny and colleagues was the second most downloaded article in GCB for 2018.*”



Professor Steve McGrath, Head of the Sustainable Soil and Agriculture Sciences Department, presenting Johnny Johnston with six volumes of his collected works at Rothamsted in January 2019.

More than 40 of Johnny’s colleagues from inside and outside Rothamsted gathered to celebrate his birthday on 27th January and his distinguished career, which included not only an appreciation of his contributions to science, but also his passion for extension and training, and the time he has given to advising colleagues, young and old, in academia and industry. All his colleagues spoke of his enthusiasm, warmth, and how he had given his time to inspire them in their careers. Johnny has written more than 220 papers in scientific journals, Rothamsted Annual Reports, book chapters, advisory booklets and conference proceedings. At the celebration he was presented with an amazing six bound volumes of his collected works. He is still writing...

The society publishes two scientific journals through a partnership agreement with Wiley. The European Journal of Soil Science is celebrating its 70th anniversary year and publishes six editions annually. Soil Use and Management was first published in 1985 and publishes four editions per year.

Your membership fee includes a personal online subscription to both journals.



EJSS Editorial Team

Editor in Chief: **Professor Jennifer Dungait**
Deputy Editors: **Dr John Scullion, Dr Rob Bryant, Professor Olaf Schmidt**

Altmetric is a system which tracks and measures how much attention an article has received online from social media, traditional media (The Guardian, New York Times and field specific news outlets), blogs and online reference managers such as Mendeley.

The journals' top scoring articles on Altmetric since January 2019 include:

- Soil properties and distribution in the riparian zone: the effects of fluctuations in water and anthropogenic disturbances <https://onlinelibrary.wiley.com/doi/full/10.1111/ejss.12756>
- Landmark Papers: No. 8 <https://onlinelibrary.wiley.com/doi/full/10.1111/ejss.12768>



SUM Editorial Team

Editor in Chief: **Professor Mike Goss**
Deputy Editors: **Dr Fiona Nicholson and Dr Matt Aitkenhead**

- Effect of nitrogen fertilizer on rice photosynthate allocation and Carbon input in paddy soil <https://onlinelibrary.wiley.com/doi/abs/10.1111/ejss.12811>
- Soil information sharing and knowledge building for sustainable soil use and management: insights and implications for the 21st Century <https://onlinelibrary.wiley.com/doi/full/10.1111/sum.12493>
- Making knowledge and meaning in communities of practice: What role may science play? The case of sustainable soil management in England <https://onlinelibrary.wiley.com/doi/full/10.1111/sum.12487>
- Harvesting European knowledge on soil functions and land management using multi-criteria decision analysis <https://onlinelibrary.wiley.com/doi/full/10.1111/sum.12506>

Peter Hotson Le Mare (1922 – 2018)

Peter was born on 18th November 1922 in Prescot, the oldest son of Ernest and Helen Le Mare. He grew up in St Helens where his father was a chemical engineer with Pilkington Glass and his mother, a theatre nurse. His father's experiences in WWI convinced him to join the Society of Friends and thus both his sons attended the Friends' School in Saffron Walden from which Peter went to Leighton Park School, Reading for his sixth form.



Peter Le Mare (selfie November 2018)

“

I first met Peter in August 1968 when I joined the Tanzania soil survey team based at Ukiriguru. Though not part of his responsibilities, Peter was of great assistance to the team, and continued to be a joy to know and work with...”

In his last years at school, Peter became interested in agricultural research. As his father had known John Russell when he was a student at Owens College, Victoria University in Manchester, he asked Russell (by then Director of Rothamsted Experimental Station) for advice on how Peter should proceed. Russell advised taking a pure science degree and “*picking up the agriculture later*”. He also suggested that Peter should spend a summer holiday as a voluntary worker at Rothamsted, which he did immediately after leaving school.

In October 1941 Peter started to read Botany at Manchester. He was more interested in chemistry, but lacked sufficient background in mathematics. His time at Manchester lasted three months. As a Quaker, he had registered as a conscientious objector, but the Tribunal would only excuse military service if he worked “*the whole time on the land*”. Peter then wrote to John Russell to ask if he could work at Rothamsted, hoping for a job on the farm. This was granted and Peter went in February 1942, not as a farm labourer but to the Chemistry Department where he had spent the previous summer.

In the spring and autumn months he was assigned as an assistant to Dr A. H. Bunting conducting field experiments on bulky organic manures, mostly from sewage works in northern England. In the summer months he assisted with pot experiments (mainly as an x-ray crystallographer) on alternatives to superphosphate (because sulphuric acid for its manufacture was in short supply) under Gunter Nagelschmidt. In the winter, he analysed experimental data, so gaining an insight into statistics, for E.M. Crowther. Crowther encouraged him to enrol at Birkbeck College to study part-time for a degree at Birkbeck College, so in October 1943 he enrolled to study Chemistry and Pure Mathematics.

In February 1945, he took a position at ICI's Jealott's Hill Research Station, where he initially worked on field experiments in various parts of the country, but then switched to lab assistant to A.H. Low studying soil structure, as this made it easier to continue his Birkbeck degree studies.

In September 1946 he married Joy Smallwood, a horticultural research assistant at Jealott's Hill. In November of 1946, Dr Bunting wrote saying that he had been appointed Chief Scientific Officer of the Groundnut Scheme in Tanganyika and asking if Peter would join him as Soil Chemist. This depended upon him finishing his degree so, with Joy's financial support, he quit work to focus on his studies.



Peter Le Mare at Kongwa (1947)

In October 1947 Peter arrived in Tanganyika and reported to Kongwa where the Scientific Department was being established. Joy joined him the following year once staff housing had been built. His main task was the organisation of field experiments to measure the fertiliser requirements in the three areas of Tanganyika and a few sites in Northern Rhodesia proposed for the production of groundnuts. While this research identified soil fertility limitations in each of the scheme areas, these were not the only factors leading to the abandonment of the Scheme in 1951, but that's another story — one that Peter has been frequently sought to tell in the years since. When the Scheme was abandoned, Peter was left to pack up and lock the laboratory (equivalent, I suppose, to “*Last one to leave switch off the lights*”) at Kongwa.

In 1952 he joined the Empire Cotton Growing Corporation (ECGC), later renamed the Cotton Research Corporation (CRC). He was posted to their new Research Station at Namulonge, Uganda, but his terms of reference stipulated spending one quarter of his time at Ukiriguru Research Station in Tanganyika (Tanzania from 1964) where ECGC was also engaged in cotton research. He thus became the first Soil Scientist appointed there. In 1963, Peter took charge of the cotton research team at Ukiriguru.

In 1969, Peter resigned from the CRC and returned to the UK where he spent the next three years at Rothamsted continuing his Namulonge research on the unusual reaction of superphosphate fertiliser in high manganese soils. He received a PhD from University College London in 1973 for “*The effects of mono-calcium phosphate on crops in some Buganda soils*”.

From then until his retirement in 1988, he was a member of the Reading University Soil Science Department, but employed by the UK Government to research food crop (particularly pulses) soil fertility problems in tropical soils. This included several overseas visits and six-month at the International Institute for Tropical Agriculture at Ibadan, Nigeria.

On retirement, he and Joy moved to his parents' former home at Allithwaite. Joy predeceased him in 1996 but Peter remained there, tending his garden, enjoying its produce and exploring the many things that aroused his curiosity. He kept abreast of the world and its foibles, and took time to tell his MP, the Guardian, the Westmorland Gazette and anyone else who would listen what he thought. As well as being a member of BSSS (since 1947) and TAA, he was an active committee member of the local natural history and local history societies and a regular contributor to the Furness Line Action Group. He died at home on 14th November 2018 after a very short illness.

I first met Peter in August 1968 when I joined the Tanzania soil survey team based at Ukiriguru. Though not part of his responsibilities, Peter was of great assistance to the team, and continued to be a joy to know and work with, particularly since 2016 as my unofficial research assistant in the World Soil Archive at Cranfield. My last conversation with him was over coffee at his home on the 9th November 2018.

Approximately 60 family and friends gathered at Abbot Hall Hotel, Kents Bank on 1st December 2018 to celebrate his life and share their stories of how he inspired them, with his humour, generosity, integrity, self-sufficiency, eccentricity, engaging conversation and much more. His was a long life well lived. He now rests in Dalton Woodland Burial Ground.

Peter is survived by his four children (David, Robin, Margaret and Richard), four grandchildren and one great granddaughter. We extend our condolences to all who knew and loved Peter.

● **Wayne Borden.**

(With assistance from Peter, his family and friends).

“

*When the Scheme was abandoned, Peter was left to pack up and lock the laboratory (equivalent, I suppose, to “**Last one to leave switch off the lights**”) at Kongwa.”*

Further info...

In the next Issue:

Auger Print Deadline

If you would like to contribute articles to the next print edition of the Auger please send them to exec@soils.org.uk by 1st October 2019. Please send in plain text format and images as separate high resolution files.

Annual General Meeting

The next Society Annual General Meeting is on Wednesday 4th September 2019.

Council Meeting

The next meeting of Council will be on Tuesday 18th June 2019.

Connect with us on our social media channels...

 [@soil_science](https://twitter.com/soil_science)

 [facebook.com/
BritishSoilScience](https://facebook.com/BritishSoilScience)

 [instagram.com/
britishsocietyofsoilscience](https://instagram.com/britishsocietyofsoilscience)

Don't forget that the Society has a range of interesting videos on YouTube...

 [youtube.com/user/
BritishSocietyofSoil](https://youtube.com/user/BritishSocietyofSoil)

THE Auger

DECEMBER 2019

- Meet the New PPC Chair...
- AGM 2019 Minutes...
- 2022 World Congress Update...





Augering on...

DIARY DATES 2019

Council Members 2019:

President & Trustee:	Professor Sacha Mooney
Past President & Trustee:	Professor Wilfred Otten
President Elect & Trustee:	Dr Bruce Lascelles
Hon. Editor EJSS:	Professor Jennifer Dungait
Hon. Editor SUM:	Professor Mike Goss
PPC Chair & Trustee:	Dr Thomas Aspray
PPC Vice Chair & Trustee:	Mrs Anna Becvar
PPC incoming Chair:	Dr Mike Palmer
Governance Secretary & Trustee:	Professor David Hopkins
Treasurer & Trustee:	Mr Nigel Titchen (covering vacancy)
HR Trustee:	Mr Nigel Titchen
Chair of Education Committee:	Dr Jacqueline Hannam
Midlands Soil Discussion Group:	Dr Sami Ullah
Northern Soils Network Chair:	Vacancy
Scottish Soil Discussion Group Chair:	Dr Sarah Buckingham
South East England Soil Discussion Group Chair:	Vacancy
South West England Soil Discussion Group Chair:	Dr Leila Froud
Welsh Soil Discussion Group:	Mr Ian Rugg
Early Career Representative:	Mr Dan Evans
Ordinary Members:	Dr Eleanor Reed Dr Leila Froud
Executive Officer & Company Secretary:	Mr Ian Brown

Diary Dates 2019:

Details of all events listed can be found at:
www.soils.org.uk

If you would like to advertise an event
on our website please email details to:
events@soils.org.uk

3rd September 2019

Council Meeting
University of Sheffield

4th and 5th September 2019

Society Annual Conference
University of Sheffield

2nd October 2019

**"Exposing and Describing a Soil Profile"
Course**
Shuttleworth College, Bedfordshire

20th and 21st November 2019

"Agricultural Land Classification" Course
Birmingham

5th December 2019

World Soil Day



**BRITISH
SOCIETY
OF SOIL
SCIENCE**

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Promoting the study and profession of soil science

What we do

Publications

With your membership you have access to our two journals; The European Journal of Soil Science and Soil Use and Management.

Newsletter

You will receive The Auger twice a year along with e-mail updates detailing meetings, activities and general membership news.

Conferences

The Society sponsors a number of conferences, joint meetings with other organisations and regional discussion days. As a member you will be entitled to reduced registration fees.

Grants

A variety of grants are awarded ranging from individual grants to funding for teachers organising projects on the study of soil.

Professional Status

Full Members gain recognition as fully qualified and experienced professionals.

Chartered Status

Members are eligible to apply for Chartered Scientist status.

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