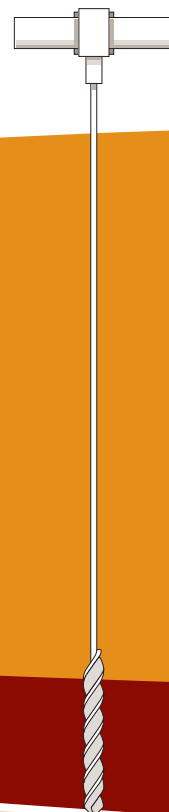


THE Aüger

DECEMBER 2019



In this issue...

- 3** President's Welcome
- 6** Notes from the PPC Chair
- 7** Society News
- 8** My job as a soil scientist
Dr Eleanor Reed
- 9** Early Career Researcher:
A Farewell Message from Dan Evans
- 10** Call for Abstracts – EGU
- 11** Early Career Soil Scientist?
Need some help with funding your development?
- 12** 73rd Annual General Meeting – Minutes
- 18** Professional Registration
with the Science Council and its benefits
- 20** News (from Rothamsted Research)
- 23** The Askov Long-Term Experiment:
Celebrating the first 125 years
- 24** BSSS at Open Farm Sunday 2019
- 28** World Congress of Soil Science 2022
Glasgow – Update
- 30** Book Review
Managing the Triad, Bill Butterworth
- 30** Further Info
- 31** Council Members / Diary Dates

Cover image: Our Patron, His Royal Highness The Duke of Gloucester KG GCVO posts his letter in the Time Capsule ready for burial on World Soil Day

Editorial

As I write this short update from the office it feels rather strange to think that when you read my words I will no longer be the Executive Officer for the society.

I joined BSSS in December 2013 as the Membership Coordinator on a 12 month contract and one of my first tasks was to assist with the society's bid to host the 2022 World Congress of Soil Science. I was lucky enough to attend the 2014 World Congress of Soil Science in South Korea where we had an exhibition stand to promote the society's bid. It was a truly amazing feeling when we were told that the society's bid was the chosen one by the IUSS Council. It was an even better feeling last year at the 2018 World Congress when so many delegates visited our stand to say how much they were looking forward to coming to Glasgow in 2022. I know how much work is being done to ensure that the next World Congress is a huge success and hope that as many members as possible will be spreading the word across their contacts to help make it the best attended World Congress in recent times.

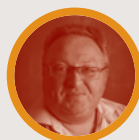
I have enjoyed the various conferences, training courses, annual general meetings and other events where I have met many of the members face to face. It has been a pleasure to lead the office in supporting the members of the society and I appreciate the kindness and understanding from you since taking over as the Executive Officer in 2015.

Can I remind you of the dates for the 2020 Annual Conference which is being held in Glasgow. Save the 2nd and 3rd September now in your calendars, diaries, tablets or filofaxes (showing my age) for an opportunity to share your research, meet other soil scientists and enjoy the delights of Glasgow. Details will be available early next year so keep an eye on the website and your inbox!

Finally, a personal thanks to Judith, Kim and Lynne for their support in ensuring the office delivers the best service to society members. And I wish my successor the very best of luck.

Merry Christmas and a happy new year!

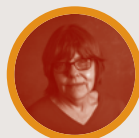
📍 Ian Brown, Executive Officer exec@soils.org.uk



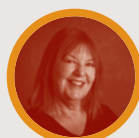
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President's Welcome

Professor Sacha Mooney President



Dear Members...

In contrast to when I wrote my last piece for the Auger back on a sunny day in June, today all I can see out of my office window is black clouds, heavy rain and the ever deepening puddles that have led to a very wintery end to September. Our seasons are often a reminder of the different jobs we need to do and the exciting things we have to look forward to. At home my children are busily discussing plans for Halloween, Bonfire Night and Christmas. Within the Society we are reflecting on our recent Annual meeting and looking at the long list of tasks we need to complete by the end of the year. Seasonal holidays seem a long way away at this point!

In my last update I was delighted to report that we had recently appointed Professor Jenni Dungait as our new Editor in Chief for European Journal of Soil Science. It has been great to see Jenni's ambition for the Journal start to take shape and I am confident that the Journal is in very safe hands as we look forward to the changes that will be necessary to keep pace with rapidly evolving publishing landscape. Jenni recently appointed Professor Gerard Heuvelink, affiliated to Wageningen University and ISRIC-World Soil Information as a new Deputy Editor for the Journal with specific expertise in Pedometrics and we wish him well in his new role. Shortly after the process of recruiting a new Editor in Chief for the European Journal of Soil Science concluded, we began the process of recruiting a new Editor in Chief for our other journal, Soil Use and Management, as our current Editor, Professor Mike Goss stands down at the end of the year. So, I am again delighted to announce that we have appointed an outstanding soil scientist in Dr Deyi Hou from Tsinghua University in Beijing, China.



... This year we held our Annual Meeting at the University of Sheffield...

... We had just under 100 delegates and the feedback I received suggested it was one of our best yet ”

Deyi's research interests are primarily in the areas of soil contamination and remediation. He has extensive editorial expertise having acted as Editor in Chief for the Journal of Hazardous Materials and he has lots of exciting plans for Soil Use and Management and I very much look

forward to working with him in 2020.

I would like to take this opportunity to thank Mike for the fantastic work he has done as Editor in Chief for Soil Use and Management but also for the many other contributions he has made to the Society whilst sitting on our Council.

This year we held our Annual Meeting at the University of Sheffield across two days in early September. The theme was 'Managing Soil Resources to Secure our Future' and was organised by our past President, Professor Wilfred Otten. We had just under 100 delegates and the feedback I received suggested it was one of our best yet. This year we introduced a Presidents invited lecture which was

given by Professor John Crawford from Rothamsted Research entitled 'Linking Soil and Human Health'.

President's Welcome

“

...Sadly, by the time you receive this edition of the Auger our Executive Officer Ian Brown will have left us, moving on to pastures new...
...The Executive Officer is a complex job, often spinning many, many plates at once, and it is a position that I know Ian has really enjoyed and has always undertaken to a high level on behalf of the Society. ”



It was an excellent insight into our latest understanding about soil health and how this impacts on human health and as a soil physicist it was great to hear John explain the vital role that soil structure plays in a number of the key soil functions. We also had our invited Russell Lecture, this year given by Professor Marcel van der Heijden from the Swiss Federal Research Institute Agroscope, Zurich on “*Soil Ecological Engineering and Soil Microbiome Management in Terrestrial Ecosystems*” which was very well received. Another highlight was a dedicated session on Reduced Tillage organised by Professors Andy Whitmore (Rothamsted Research) and Paul Hallett (Aberdeen University) that brought together researchers and practitioners from across Europe to share their experiences, both good and bad, on the impact of minimising cultivation from both a soil quality and a wider agronomic perspective. The combination of oral presentations, panel discussion and focused small group meetings worked really well in this regard and I know many people felt this was something they would like us to do again at future events. Wilfred was supported in the organisation of the event by fellow Council members, Anna Becvar and Mike Goss and, of course, our excellent office team (Ian, Lynne, Judith and Kim), special thanks to all of them for their efforts. Our attention as far as our Annual Meeting now turns to Glasgow for September 2020. This is an important meeting as it coincides with a visit from IUSS for the Inter Congress (the equivalent of the International Olympic Committees visit in advance to check all the plans are running to schedule) associated with the World Congress of Soil Science in Glasgow 2022. From an Annual Meeting perspective it is a great opportunity for us to have a selection of invited speakers from the IUSS committee who ordinarily might not attend our meeting. We have a wonderful venue booked for the meeting, the Royal College of Physicians and Surgeons, and I look forward to welcoming as many as possible of you there. More details about the meeting will be circulated early in the New Year.

In other Society news, our regional groups are continuing their work in delivering and engaging with our members. We have two new Chairs to announce. Dr Manoj Menon (University of Sheffield) has become the new Chair of the Northern Soils Network replacing Dr Jenny Jones (Liverpool John Moores University) and Dr Andy Tye (British Geological Survey) has become the new Chair of the Midlands Soil Discussion Group replacing Dr Sami Ullah (University of Birmingham). Many thanks to Jenny and Sami for all your efforts and best wishes to Manoj and Andy in their new roles. I continue to be amazed by the energy and efforts of our regional groups.

At our recent Council meeting we discussed how we might further support our regional groups through their own events and supporting other activities such as Open Farm Sunday and developed some exciting plans for 2020. If you don't currently engage with your regional group I strongly encourage you to give it a try, I promise you won't regret it. Further details about relevant contacts are on our website if you are unsure. As President my current focus has been on preparing our new strategic plan from 2020–2025 and engaging with other Societies to ensure we maintain best practice. I recently attended a meeting in London hosted by the Foundation of Science and Technology to discuss Society governance structure and organisation and, despite a lengthy speech from Lord Carlile on Brexit, it was interesting to meet representatives from other scientific societies and compare notes on providing member benefits, supporting early career scientists and the dreaded Plan S. I also have a visit to China later this month where I will meet President of the Chinese Society of Soil Science and look forward to discussions about working closer together especially since China will host the World Congress after Glasgow.

Finally, and sadly, by the time you receive this edition of the Auger our Executive Officer Ian Brown will have left us, moving on to pastures new. I first met Ian back in 2014 in Jeju, South Korea on the day we discovered we had won the competition to host the World Congress in Soil Science in Glasgow in 2022. I remember seeing how excited he was by this and thinking how great it was to see this from someone who had not been with the Society for that long at the time. In the last few years I have worked with Ian as incoming President and much more closely since January as President. It would be difficult to find a more dedicated and hard-working individual. The Executive Officer is a complex job, often spinning many, many plates at once, and it is a position that I know Ian has really enjoyed and has always undertaken to a high level on behalf of the Society. So, I want to end this editorial by thanking Ian for all his tremendous efforts on behalf of all of us. He will be greatly missed but welcome to visit us at any time, especially I hope in Glasgow in 2022. Looking forward, we are now seeking a replacement and I hope to update on that soon. Until next time, just to reiterate what I have said before if you have any thoughts or comments about the Society I would love to hear them, so if you have a moment please drop me a line at president@soils.org.uk

On behalf of the Society I wish you all a wonderful end to 2019 and best wishes for 2020.

🌟 Professor Sacha Mooney, President,
December 2019 president@soils.org.uk

Notes from the PPC Chair

Tom Aspray PPC Chair



Writing this in early October, I'm none the wiser where the UK will be in respect of Brexit; however, I'm confident 2020 will be a busy year for soil both in and out of BSSS.

PPC membership

I'm pleased David Tompkins from Aqua Enviro will be joining the PPC following Anna Becvar's call for volunteers at the annual conference. Personally, I've known David for at least 10 years and sure he will make a positive and active contribution to PPC work.

We are still short of members and have a few 'executive' positions available including teaching practice and research practice reps so would welcome interested members to come forward.

To further the work the PPC can do with the current 'resource' available we have streamlined the processes for assessing membership applications and CPD returns for Chartered Scientists. With this we can start to focus on more external facing activities.

PPC organised events

We are aiming for an increased number of PPC run events for BSSS members in 2020 following on from successful events in 2019 with partner organisations. Taking information from the 2019 members survey onboard these events will be half to one day, with as wide a geographically spread as practically possible, and with different sector/topic focuses.

PPC volunteer members are working on topics on Soil and Water, Soil Valuation and Contaminated Land so keep an eye on the website and email alerts. The PPC will also look to engage with the annual conference programme after this year's successful workshop *'Impact on soils of the change towards reduced tillage'*.

Industry event attendance

In 2019, the PPC supported by the office, and one BSSS member (you know who you are!), have been out and about promoting and raising awareness of the society at industry events including Cereals and Contamination Expo. For myself this involved a day at Contamination Expo — a great day speaking with visitors to the event about the society and gathering ideas to take away and work on.

With the World Congress of Soil Science coming to Glasgow in 2022 we have planned to attend further industry events in 2020 including Groundswell Agriculture No-Till Show and Contamination Expo.

Working with Soils

Working with soil (WwS) programme continues to develop thanks to Dick Thompson's enduring commitment and enthusiasm. The range of courses is also going to be expanded in 2020/2021 with new courses on mapping and the Land Capability Classification for Agriculture (LCCA — Scotland). As always, 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.

We have been actively raising awareness of the WwS documents and course programme at above mentioned industry events and with specific partner organisation. In terms of partner organisations, British Association of Landscape Industries, are actively promoting courses to their own members and an affiliate member organisation of BSSS. Course dates are also being finalised further ahead to enable us to advertise more widely via different media.

Finally, the WwS competency documents (<https://soils.org.uk/working-soil-complete-set-download>) are 'going underground' on World Soil Day — 5th December — so will be a useful resource to look back on when they are retrieved at the Society's 100th anniversary celebrations in 2047.

Guidance notes

At a slightly earlier stage of development than the above activities, we are beginning to consider industry guidance notes. A first agricultural land classification guidance note has been finalised and will be published on the BSSS website shortly. Two further guidance notes are in early stages of development.

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

Regional Group Update

SOUTH WEST ENGLAND SOILS DISCUSSION GROUP (SWESDiG)

Cakes, sunshine, sand, peat, buzzards and artists all featured on the recent SWSDG social to Dartmoor. Led by Rob Parkinson, the group walked from Haytor Rocks to the Yarner Wood visitor centre, stopping at selected points along the way to learn more about local soils and landscape. We were so lucky to have a glorious sunny day to enjoy the views and make the most of our surroundings, including watching buzzards rising on the thermals when we stopped for lunch. The walk has been set up as a self-guided tour, in conjunction with Natural England, that members of the public can follow using information leaflets. We all agreed, however, that our version was much more fun, not least because it included home made cakes from Rob's wife Anne to represent selected soil types. Rob also challenged us to think about 'what makes a soil' (a sample of sand, anyone? What about this peat?), and how many types of vegetation we could see – and which of those we could identify.



Getting "hands on" with the soil



A quick stop off to enjoy the view...

Along the way we learned about how the landscape has been shaped, including the impact of 19th century quarrying which not only left large holes, as may be expected, but also granite tramways which had been used by the Templer family to transport stone to the coast. Through the woodland there were remains of a miles-long leat, also built for 1800's industry but sadly abandoned after only a few decades as technology moved on. Elsewhere Rob showed us the effects of wood ants, which substantially influence local soil properties, including creating hotspots of high soil pH. The soil-y highlight was the exposed face of hardpan stagnopodzol of the Yarner series, in its only known location in this country. Admittedly by then we had all eaten quite a lot of cake, but nonetheless the enthusiasm seemed pretty genuine as we took the opportunity to share information about soil colour changes, and once again consulted the Munsell Colour Chart.

The party included several non-soil scientist partners, so conversation was varied and we enjoyed getting to know one another. One committee member was slightly concerned that her other half may have got the impression that BSSS is mainly about eating cake! Towards the end of the trip we called in at an Open Studio event by local artists, where tea and yet more cake was available, alongside a range of beautiful creations. Here's to another countryside SWSDG social soon!

SWSDG@soils.org.uk

My job as a soil scientist

Dr Eleanor Reed:

Principal Environmental Scientist (Soils)

Wardell Armstrong



Within the Agriculture, Soils and Peat team at Wardell Armstrong we work on a wide range of projects from the initial planning phase, throughout construction, and during restoration and remediation.

The past few months have seen our team largely out on site undertaking a range of soil surveys and site supervisory roles. In Scotland, we are undertaking extensive soil and peat surveys to help inform commercial forestry operations of future planting regimes; whilst soil surveys have been undertaken within England to inform the construction schemes of new rail and energy infrastructure, mineral developments, sports pitches and housing developments.

Our team are passionate about soils and continually promote the importance of the early consideration of soils in the development process and the use of best practice. This can help in easing the planning application process and reduce planning, design and construction costs, whilst maximising the sustainable soil re-use on sites which enables the continued provision of essential ecosystem services that soils provide.

As an experienced, Chartered soil scientist, I draw on a research background to deliver bespoke, practical soils and agricultural land-use advice to a wide range of clients, specialising in the delivery of large-scale infrastructure projects. In any given week, I can be on site to undertake ALC surveys or supervising construction works during soil handling activities, in the office preparing Environmental Impact Assessments and Soil Management Plans, or at consultation events with statutory and non-statutory stakeholders.

That's the great part of this job, we have the ability to not only reduce the potential impact on soils and agricultural land during the planning process, but also be on site to ensure the methods and control measures are in place to ensure the successful reinstatement or restoration of land.

“

Our team are passionate about soils and continually promote the importance of the early consideration of soils in the development process and the use of best practice.”

Early Career Researcher:

A Farewell Message from Dan Evans

Dan Evans National ECR Rep



Paddling in the bath of a crimson horizon, a naked hedgerow is cleansed with the last drops of winter sunlight. In a while, the dusk will drape a robe of mist over the branches and the sunset will be a memory, held by a robin as it gazes on a red winter berry. Across a ploughed field in the far distance, a smudge appears. That smudge is me.

As I saunter over the frosted furrows, I am reflecting on my time as your National Early Career Officer. I can recall a ramble I made over this, one of my favourite fields in North Norfolk, two years ago. I can recollect the immense feelings of enthusiasm and anticipation for the role that I would shortly take up. The cliché often expressed in times like these is 'how time flies'. But it's us — you and I and the British Society of Soil Science — that have come a long way since 2018. The Early Career network has both expanded and evolved; we've not only welcomed fresh faces to the Society but embraced those engaged in post-PhD activities. Our community continues to enrich the discipline of soil science: displaying zest and creativity, delivering significant research, engaging public communities and stakeholders, being ambassadors for soils on the international stage, and demonstrating a profound, heartfelt desire to protect our soil resource for future generations. You have all shown a stalwartly commitment to the milieu of challenges that confront society and I could not be more proud to have represented you over these past two years.

“

Our community continues to enrich the discipline of soil science: displaying zest and creativity, delivering significant research, engaging public communities and stakeholders, being ambassadors for soils on the international stage, and demonstrating a profound, heartfelt desire to protect our soil resource for future generations.”

The dusk begins to cocoon the country like a duvet. Halfway across the field, I turn back to glimpse at my footprints, each one imperceptibly erased from sight as the gaseous rubber of the mist closes in. But the prints are still there and tomorrow these miniature quarries will no doubt guide another ambler across the field. That's what I have enjoyed over these past two years as your Early Career officer: not stamping my own imprints on the Society, but helping to take a lead and being your guide. I shall never forget the joy of leading the Early Career conference this year, providing you with opportunities to enhance your networks, hone your presentation skills and open your mind to future career prospects. As we look towards the decades ahead and, in particular, the run up to our 100th anniversary in 2047, many more Early Career members will join our Society. When the Early Career Time Capsule is unearthed from the grounds of Rothamsted Research, and opened by the next generation of soil scientists, I am sure they will be inspired by the steps we've taken and the path we've laid.



Early Career Researcher:

A Farewell Message from Dan Evans

In the distance, a tractor bleeds a beam of light down a country lane. I wonder how long it will be before its ravenous teeth are set to work again in this field, churning up my footprints. The fleetingness of modern life may ironically be one of the perpetual footmarks of this generation. It reminds us that we must continue to work for what we passionately believe in. As Early Career members, we may often conclude at the end of one of our less productive days that our work is irrelevant, of trivial importance and that, like a plough, soon forgotten. Trust me, it isn't. What we do now as Early Career members is seminal. So, continue to support your regional group discussions, continue to attend our Annual Conference, and continue to spread your vision on the international stage. Consider your accomplishments not as being ploughed up from the debate, but as continually re-worked and mixed in. And, you never know, seeds of hope may sprout.

I will continue to remain an active member of the Society and I look forward to seeing you in the years ahead. Until then, may I wish you and your families a very peaceful Christmas and my very best wishes for the future.

When I arrive back home, the warm glow of the fire and the sweet colognes of Christmas pudding greet me at the door. As I remove my wellingtons, I notice some mud from the field is gripped by their tread. At the end of one's tenure in a role, I suppose we all take something with us: different skills, fresh ideas, new friends and inspiration for future pursuits. You have certainly given me support and encouragement these past two years. I would like to thank my excellent ECR regional reps for their work, tirelessly committed with efficiency, excellence and good humour. Thank you to all those in the Office, especially during conference season, and believe me when I say you have provided me a beacon of support throughout. Thank you to Council members for your respect and honesty, and for always listening to the voices of our Early Career members. Finally, thank you — the membership of the Society. I cannot exhaustively list what you have given me. All I can hope for is that I have responded enough by giving my all.

📍 **Dan Evans, outgoing National ECR Rep**

You can also follow me on Twitter:

🐦 @DanEvansol

and email me:

d.evans3@lancaster.ac.uk

Call for Abstracts:

'Atmosphere – plant – soil interactions: organic and inorganic carbon in the critical zone'

We invite abstract submissions to a European Geosciences Union (EGU) session exploring organic and inorganic soil carbon across multiple soil interfaces at different spatial and temporal scales in the critical zone. Given that soils represent one of the largest terrestrial carbon stores, we need to better understand the role of carbon in all soil systems, from microbial processes at the aggregate scale to land surface processes at the catchment scale. This is particularly important as carbon cycles are facing perturbations ranging from rapid shifts in land use and management to degradation and long-term environmental and climatic change.

The EGU General Assembly will bring together soil scientists from around the world and will take place in Vienna between the 3rd and 8th May 2020. Submissions are invited from all researchers, especially early career researchers, using empirical, modelling, or meta-analytical approaches to investigate soil carbon. The deadline for abstract submissions is the **15th January 2020, 12:00 GMT**. For more information, please go to: <https://tinyurl.com/egucarbon>. If you have any questions about the session, contact Chris McCloskey on C.McCloskey@cranfield.ac.uk, and don't forget that BSSS ECR members can apply for Society travel grants to support attendance at this conference.

📍 **Chris McCloskey, Emily Dowdeswell-Downey
and Dan Evans**

Early Career Soil Scientist?

Need some help with funding your development?



Professor Brian Chambers, a former President and Fellow of the Institute of Professional Soil Scientists (IPSS) and member of BSSS, worked tirelessly to apply science to the complex problems of soil, nutrient and manure management. With his outstanding technical knowledge and critical thinking, he was always prepared to push the boundaries and challenge convention but only when supported by 'sound science' — one of his favourite phrases.

For more details on how your organisation can get involved please see:
<https://www.soils.org.uk/bcsf-brian-chambers-soils-fund>

The Brian Chambers Soils Fund 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.

Practical experience and the ability to communicate effectively are key requisites for those wishing to follow in the footsteps of someone like Brian. A number of agriculture and environmental industry organisations have kindly offered to provide opportunities for work experience, mentoring or training.

The first application to the fund was made in November 2016 and since then it has received 18 applications for funding. To date, 12 grants have been approved (£5,300) by the Grants and Awards Committee (in association with the BCSF Steering Group).

If you would like to find out how this might help your career development, please email bcsf@soils.org.uk with a brief description of what kind of practical support you need. A member of the Brian Chambers Soils Fund will get in touch to discuss how we can help.

To find out more details of how you can apply for a grant head over to the BSSS website.

The Brian Chambers Soils Fund also works closely with the International Fertiliser Society who have established the Brian Chambers International Award. Cash prizes are available for PhD or MSc students.

73rd Annual General Meeting — *minutes*

Minutes of the 73rd Annual General Meeting of the Society, held at University of Sheffield, Sheffield, UK on Wednesday 4th September 2019.

1 Welcome

Society President Professor Sacha Mooney chaired the meeting and welcomed the 29 Members present to the 73rd Annual General Meeting of the British Society of Soil Science.

2 Minutes of the previous (72nd AGM) Meeting

Published in The Auger, December 2018 pages 24 to 29.

3 Matters Arising from the Minutes

There were no matters arising.

4 Acceptance of the minutes by Members present

The minutes were accepted by the meeting. Proposer Andy Tye and seconded by Margaret Oliver.

5 Executive Officer Report

Ian Brown presented a brief update of the society's activities from 2018 and 2019 to date. Membership grew to 793 members in 2018. Diversity shows the gender breakdown of 69% male and 31% female although this changes to an equal split amongst our Early Career Members. In 2019 the membership number stands at 787, a tiny decrease from the end of last year. The gender diversity is now 68% male and 32% female with ECR continuing at an equal split.

The society delivered 4 Working with Soil Training Courses to 45 delegates covering "*Exposing and Describing a Soil Profile*", "*An Introduction to Soil Classification*" and "*Agricultural Land Classification (England and Wales)*". Feedback is consistently positive and there has already been 1 "*Exposing and Describing a Soil Profile*" this year with 16 delegates attending. A further "*Agricultural Land Classification (England and Wales)*" is scheduled for November in Birmingham.

The 2018 Annual Conference, "*Soils and Sustainable Development Goals*" saw 100 delegates attend the two day event at Lancaster University. This was a marked increase in numbers of attendees from the previous year.

The Regional Groups held a number of meetings during 2018 which included workshops, farm visits, a field visit, discussion meetings, conferences and a joint event between the Scottish and Northern Soils Groups. 193 delegates attended these events last year with the majority of this number being society members. To date there has been five regional groups already this year with at least another three due to take place before the end of the year.

The highlight for me personally was the society stand at the 21st World Congress of Soil Science in Rio de Janeiro last August. Our large stand had a prominent position in the exhibition hall and there was a tremendous buzz around it over the four days. We seemed to be one of the most popular stands with a constant stream of people stopping by. Certainly our two whisky tasting sessions were popular with society members and the specially invited guests. And at the award dinner the society was recognised with a special award from the President of the Rio Congress.

Thanks to all of the members who helped myself and Lynne Boshier manage the stand. There was much interest from the delegates in what we have planned for 2022 and a genuine desire to travel to Glasgow.

That is just a brief taste of some of the things that have kept myself and my team busy over the last 18 months.

As many of you know this is my final AGM as I will be leaving the society next month. It only seems like yesterday when I stood up at the Royal College of Physicians in London, literally, the day after my appointment had been confirmed. I would like to take this opportunity to thank Judith, Lynne and Kim. My team.

I would also like to thank the Presidents I have worked with for their patience and support during my time as Executive Officer; Phil Haygarth, Liz Baggs, Wilfred Otten and Sacha Mooney.

6 President's Report

Professor Sacha Mooney began by confirming his personal highlights since taking over as President on 1st January 2019. The society is in good shape with membership numbers looking positive, dynamic Regional Groups engaging with members, outstanding Early Career Researchers and the World Congress of Soil Science getting ever closer.

Sacha updated the members on the recruitment of Professor Jennifer Dungait as the new Editor in Chief, European Journal of Soil Science and the forthcoming recruitment for a new Editor in Chief, Soil Use and Management as Professor Mike Goss will be standing down on 31st December 2019. The society has begun more engagement with DEFRA and is working closely with Wiley to protect the journal income with the introduction of Plan S.

Sacha and Ian have also been in contact with other societies to share experiences and knowledge which has been useful.

Sacha informed those attending that Board had been working hard for a number of months on the society structure and ensuring that it is in good shape, with clearly defined roles for Board and Council, to deliver the 2022 World Congress and beyond. Following yesterday's Council meeting a paper will be drafted and circulated within a month for members to look at some proposed changes to the society structure. There will also be a members vote on the proposed changes.

Sacha is meeting the President of the Chinese Society of Soil Science in late October 2019 to discuss how the two societies can work together to deliver the 2022 and 2026 World Congress of Soil Science.

Discussions are also ongoing with Dan Evans (National ECR Rep) and Rothamsted Research for the burial of the ECR Time Capsule on World Soils Day.

Sacha outlined the society activities that he has undertaken since becoming President. These include working with the Patron, the International Union of Soil Sciences (IUSS), chairing the Board and Council meetings and in particular working with the Board to ensure we are appropriately structured to meet the challenges of the future. The society has much to offer and carries out many activities including regional events, training courses, grants, awards and prizes plus the interaction with members from the office.

Sacha thanked the 224 members who had responded to the 2019 Membership survey. This was a response rate of 25% which is high for such a survey. The responses came from a pretty even spread across the regions and the responses are being analysed now and will be shared with Council, especially the Regional Group Heads as the prime purpose of the survey was to look at what members wanted from their Regional Groups. Themes for future events suggested were Soil spectroscopy, Soil mapping, Zero tillage & C sequestration, Organic farming, Climate change & soils, Polluted soils, Soils & water and Soil as a source of antibiotics.

In the 2018 survey members asked for more efficient and frequent information. The society provides a monthly newsletter on email, specific member requests are sent where applicable, two editions of the Auger magazine are published each year and there is a programme of regional events.

2019 Survey requested 'more communication at regional group level, more publicity, joint meetings with other groups, better website'. This is very much work in progress with the website the number one priority for the new Executive Officer when they join the society.

In the absence of Dr Bruce Lascelles, Sacha gave a brief update on the progress towards delivering the 2022 World Congress of Soil Science.

Working Group meeting held at Scottish Event Campus (SEC) to start planning in detail how we will use the space.

The Scientific Committee have started discussions with the Divisions to progress ideas for the Congress structure. A vacancy for Vice Chair of Division 4 has been filled by Professor Lorna Dawson. There was an Arts programme meeting held in Glasgow with a number of organisations looking at possible events to be held at the Congress, around the city and across the UK both during and in the lead up to the Congress. Planning has progressed for pre-, mid- and post-Congress tours. The logo is being developed in partnership with Speakeasy (our Professional Conference Organiser). Once finalised we will be launching it along with an update to the website. The Inter-Congress dates have been agreed with IUSS as Sunday 30th August to Friday 4th September 2020 in Glasgow, to follow on from Eurosoil and coincide with our Annual Meeting (2nd and 3rd September 2020).

A timeline to 2022 has been drafted to give clarity on key milestones.

73rd Annual General Meeting — *minutes*

7 Finance Update

Ian Brown advised delegates that the current financial details were contained in the Trustee Report which had been published on the website in July 2019. Council had agreed a budget for 2020 which was subsequently authorised by Board. This will see a deficit of approximately £75k due in the main to expenditure on the 2020 World Congress of Soil Science.

He advised the members attending that if they had any questions to contact him directly.

8 Professional Practice Committee Update

Anna Becvar gave a sort update on the actions undertaken by the Professional Practice Committee (PPC).

The PPC has two face to face meetings per year to both review and plan activities on behalf of the society. The committee is usually made up of 10 to 12 members with defined roles. The main tasks for the committee are;

- **Chartered Scientist Registrations –**
The society holds a Registration License from the Science Council to offer members the opportunity to become professionally registered. There are currently 44 members within the society that hold this award and Anna wanted to encourage any member to consider enrolling within the programme. It is recognised across the science community and helps to develop your career.
- **Working with Soil Training Programme –**
The programme continues to run with courses being planned for 2020 and 2021. New courses are being developed for the programme and will be introduced from next year. These courses will cover “*Mapping Principles*” and “*Land Capability for Agriculture in Scotland*”.

PPC had represented the society at Cereals 2019 in June (with thanks to BASIS for offering a place on their stand) and will be attending the Land Remediation Expo at the NEC, Birmingham next week. The committee is looking to attend Groundswell in 2020. Attendance and exhibiting at these events is to raise the BSSS profile within industry and to encourage relationships and interactions with commercial organisations in the run up to the 2022 World Congress in Glasgow.

Finally advance notice that there will be an opportunity for Full Members to self-nominate for Fellow Membership from 1st January 2020. Look out for an email from the office next week with full details.



9 National ECR Representative Update

Dan Evans began by saying how much of an honour it had been to be the ECR representative for the last two years. He had seen this area of membership grow, in part thanks to the widening of the membership criteria, from 158 members in December 2017 to 222 members now. At the recent ECR Conference Dan was impressed with the diversity of the attendees, the interaction between the ECR community and the sharing of research and experiences with each other. It was also a pleasure to have the Patron attend the conference this year. He was impressed with the variety of research and even addressed the delegates in this room.

Dan also showed delegates a short promotional video from the ECR conference that is available on the society YouTube channel.

The Patron was the first person to submit an item for inclusion in the ECR Time Capsule which will be buried on World Soils Day. It is hoped that it will be dug up as part of the society 100th anniversary celebrations in 2047. It has been created to celebrate the Early Career Researchers in the society and Dan would also welcome memories from long serving members for inclusion into the capsule.





He concluded by thanking ECR members for their support of his role over the past two years and wished his successor well. Dan also acknowledged the support from Board and Council plus the office team.



10 Editor in Chief EJSS Report

Professor Jennifer Dungait addressed the members attending the AGM and began by stating that having been a member of the society for 20 years she was honoured to have been appointed as the Editor in Chief of the European Journal of Soil Science. She thanked Professor Margaret Oliver for her assistance with the handover process and for the increase in Impact Factor for 2018 which Jenni would look to build on moving forwards.

There have been some changes to the Editorial Board with Dr Siobhan Staunton and Dr Pat Bellamy stepping down from their roles. Jenni has looked to concentrate the appointments by subject area and has appointed Professor Olaf Schmidt to cover Soil Biology. She is actively looking to recruit a new Deputy Editor to cover Pedometrics.

The Author guidelines have been reviewed especially with the handing of statistics.

The Journal is in its 70th anniversary year and Jenni is still looking for suggestions for your favourite articles that can be made available to view free of charge (thanks to Wiley).

Jenni also welcomes any ideas from members on how to raise the profile of the journal. Hopefully you are following the Twitter account [@ejsoilscience](https://twitter.com/ejsoilscience)

73rd Annual General Meeting — *minutes*



Panel discussion with Professor Mark Kibblewhite, Mr Ian Rugg, Professor Margaret Oliver, Mr Paul George and Dr Patrica Bruneau

11 Editor in Chief SUM Report

Professor Mike Goss began by acknowledging the achievements and support of the two Deputy Editors Dr Fiona Nicholson and Dr Matt Aitkenhead. He also wanted to thank the work of the Associate Editors and Reviewers some of whom are attending the AGM.

Mike felt that the 2017 drop in Impact Factor was mostly down to the poor level of citations of articles published as well as not enough papers being published. The Editorial team are working on this area. In particular to focus on more “strong” articles to help to increase the stability of the two and five year Impact Factor ratings.

The Editorial team have held a number of meetings by Skype throughout 2019 which will continue until the end of the year when Mike steps down as Editor in Chief.

Mike attended the 2019 ECR to promote publishing within the journal.

There is now a new design for published papers within the journal together with a move to using negative indices in units rather than a solidus and positive indices.

There is a special issue devoted to social aspects of soils knowledge transfer and the first issue of 2020 will be issued in January with the following editions issued every 3 months after that.

Within the first issue of 2020 the journal will be launching a “Commentary/Opinion” piece. Mike finished his short presentation by thanking the membership and society for the honour of being the Editor in Chief SUM.

12 Education Committee Update

Dr Leila Froud spoke on behalf of the Education Committee and concentrated on the society’s involvement with “Open Farm Sunday”. At the recent Education Committee meeting it was agreed that this should form the main thrust of the society’s public outreach as it was an established event and there were many opportunities to participate. Leila had led in this area for the last two years and member participation was better in 2019. 10 members volunteered to participate at 5 farms across the UK with an estimated combined footfall of 15,000 people attending the events.

Leila stressed how fun participating in the event and the committee wishes to encourage as many members as possible to consider taking part in 2020.

Another area of focus for the committee is looking at soil within the school syllabus. Dr Jenny Jones is leading in this area.

13 Questions for Panel

Attendees were invited to ask any questions following the updates presented and the following areas were discussed;

“Plan S”

A question was raised around Plan S. What is it and how will it impact the society?

Professor Wilfred Otten (Publications Committee Chair) responded on behalf of the society and explained what is being proposed and how this will affect the finances of the two hybrid Journals that the society owns and publishes in partnership with Wiley.

The Publications Committee and Board are managing this and have had a series of meetings with Wiley on likely actions.

Sustainable Soils Alliance

A question was raised regarding the Sustainable Soils Alliance being recognised as the “voice of soil science” through their political activities.

Professor Wilfred Otten informed the members attending that the society had met with Defra last autumn to look at a closer working relationship. This had been a positive meeting and a couple of request for help from the society had since been received. It is important that the society has a clear offer of how it can work with Defra and the wider political arena. It was noted that the focus of the Alliance is becoming more science based which should give the society an opportunity to participate. Council is aware that the society needs to get better at political engagement.

Anna Becvar explained that the PPC are industry focussed and facing and are looking to work closer with Trade Associations to promote the society.

“Sharing of Research”

A request was made to share some of the output of the journals with the agricultural press.

Professor Jennifer Dungait agreed that this is an area the society should explore further. Potentially aim this at Farmers Weekly or Farmers Guardian which may also encourage more Farmers to become society members.

14 Result of Ordinary Member Vote for Council Vacancy

Ian Brown presented the results of the recent Members vote for the 2 Ordinary Member vacancies on Council.

There were 4 candidates – Mr Robert Cochrane, Mr Andrew Cheetham, Mr Xavier Portell and Mr Colin Taylor. A total of 35 votes were cast and the two members with the most votes were Robert Cochrane and Xavier Portell. Both will join Council on 1st January 2020 for a 4 year period.

15 2020 Council / Board Confirmation

Members were shown the listing of Board and Council Members for 2019 and asked to accept them;

Board consists of;

| | |
|--|-------------------------|
| <i>President</i> | Professor Sacha Mooney |
| <i>President Elect</i> | Dr Bruce Lascelles |
| <i>Past President</i> | Professor Wilfred Otten |
| <i>Treasurer</i> | Mr Nigel Titchen |
| <i>Professional Practice Committee Chair</i> | Dr Tom Aspray |

Professional Practice Committee past Chair
Governance Secretary

Mrs Ana Becvar

Professor David Hopkins

Board positions proposed by Professor Margaret Oliver and seconded by Dr Andrew Whitmore.

Council consists of;

Board Trustees

| | |
|---|----------------------------|
| <i>Hon Editor EJSS</i> | Professor Jennifer Dungait |
| <i>Hon Editor SUM</i> | <i>to be confirmed</i> |
| <i>Education Committee Chair</i> | Dr Jacqueline Hannam |
| <i>Scottish Regional Group Chair</i> | Dr Sarah Buckingham |
| <i>Welsh Regional Group Chair</i> | Mr Ian Rugg |
| <i>South West Regional Group Chair</i> | Dr Leila Froud |
| <i>Midlands Regional Group</i> | Dr Andrew Tye |
| <i>Northern Regional Group Chair</i> | Dr Manoj Manon |
| <i>South East Regional Group Chair</i> | <i>to be confirmed</i> |
| <i>Early Career Representative</i> | <i>to be confirmed</i> |
| <i>World Congress Working Group Chair</i> | Dr Bruce Lascelles |
| <i>Ordinary Member</i> | Dr Eleanor Reed |
| <i>Ordinary Member</i> | Mr Robert Cochrane |
| <i>Ordinary Member</i> | Mr Xavier Portall |

Council positions were proposed by Margaret Oliver and seconded by Patricia Bruneau.

As this was Ian Brown’s last AGM as Executive Officer the President formally thanked him for his services to the society over the past six years.

16 Any other business

There was no any other business items raised.

The meeting was formally closed at 19.05

Professional Registration

with the Science Council and its benefits

Professional registration with the Science Council provides independent recognition of your achievements and maintaining the exact standards required to join the global community of professional scientists.

Registered professional scientists are recognised for their competence, ability and integrity and serving the public interest. They are committed to keeping their skills and knowledge up to date through continuing professional development (CPD).

Registration is a voluntary means of demonstrating your professionalism, and involves being held to account by your peers for your abilities and adherence to ethical standards.

The society is a licensed Registrant body for Chartered Scientist (CSci) and currently has over 40 members registered.

Chartered Scientists represent the best professional scientists working in the UK and abroad. They demonstrate effective leadership, using their specialist knowledge and broader scientific understanding to develop and improve the application of science and technology by scoping, planning and managing multifaceted projects.

So what are the benefits of registration, Ian Brown spoke to some of the current members who hold Chartered Scientist status to find out more...

What was your reason for becoming a Chartered Scientist?



Working in the private sector, you need to be, and be seen to be, the best. Completing extra levels of attainment through chartered membership really does help you stand out. There are many other qualifications you can achieve in your career and these are all important, but Chartered Scientist, as certified by the Science Council, who were granted a Royal Charter, does feel a little bit special. **(Dr Leila Froud)**

I had a sense that Chartership was a way of acknowledging quality and a commitment to continued learning in a more general way than having a PhD. I felt that this would be a useful addition to my professional profile that would imply a sense of confidence in me for people that did not already know me. **(Dr James Garrett)**



Working in the criminal and civil law sector as a forensic soil scientist, it was important that I had achieved chartered status to provide independent evidence of regular assessment for suitability in terms of my professional expertise, experience and continual professional development. The annual external review that is carried out provides that customer assurance. **(Professor Lorna Dawson)**

How has it helped you develop your career?



I have been a Chartered Scientist for 5 years. The key benefit comes from the recognition that Chartered status has in industry. This has helped me relate to other professionals as well as providing confidence in my ability and experience to clients and potential customers. *(Dr Becky Wheeler)*

As a practising consultant soil scientist it is important that my competency is scrutinised and accredited by an independent authority which is recognised by my peers, clients and authorities. Accreditation has given confidence to those relying on my appointment and judgement. *(Dr Neil Humphries)*



Being a Chartered Scientist and submitting Continual Professional Development (CPD) returns challenges me to keep up-to-date with current research and its application and to regularly assess my competence against professional standards. It enables me to continue to prove my ability to deliver cutting-edge, professional research information and advice and so market my services. *(Professor Keith Goulding)*

What advice would you give to anyone thinking about becoming a Chartered Scientist?

Chartered status is particularly relevant to any soil scientist undertaking consultancy work and I would recommend the qualification to any BSSS member working as a consultant. *(Malcolm Reeve)*

Encourage your employer to allow you to attend CPD events. This will benefit you as an individual, but it will benefit your employer too — as you will become a more accomplished/well-rounded expert, which will greatly improve the image, and hence help promote, the business or organisation you are working for. *(Rob Askew)*

Often when we start in our careers especially these days we are unsure of our direction of travel. Chartered status not only demonstrates our achievements in our own field but demonstrates a wealth of transferable skills to other less obvious areas. Secondly in an increasingly competitive market when we are in competition with other professions such as engineers we are equally up to satisfying the needs of the customer. *(Clive Rahn)*



The merger of IPSS and BSSS and the subsequent changes to classes of membership, chartered status is now open to a much wider group of soil scientists including those heavily involved in teaching and fundamental research. BSSS members from the university sector and Research Council-funded research centres have not traditionally seen as much need for chartered status. However I am of the view that as BSSS members we should all view and project soil science as a profession. If we do that, the standing of soil science will be enhanced and the public's perception of our field of science will be enhanced. The acquisition of chartered status as evidence of individual professional standing and the discipline this requires in continuing to develop professionally through the CPD requirement should be seen as part and parcel of our collective effort to enhance the professional standing of our branch of science. *(Dick Thompson)*

Final comment from the PPC chair

So, make your new year's resolution to become registered as a Chartered Scientist with the BSSS and use the opportunity to look back on CPD activities in the past year and plan future needs. To support this, the society will be holding the process administration fee at £25 till the end of January 2020. The application form is very straightforward and we're always willing to help individuals through the process — please get in touch with the office at an early stage. *(Dr Thomas Aspray)*





Tony Scott (left) receives a commemorative plaque from Simon Gilbert (World Meteorological Organisation, right) at the Rothamsted Weather Station, March 2019.

Special recognition for Rothamsted's weather station

Rothamsted was recognised by the World Meteorological Organisation in 2017 for being one of the few sites in the UK where weather has been recorded for more than 100 years. To mark this achievement, Simon Gilbert of the UK Meteorological Office came to Rothamsted on 20 March 2019 to present a framed certificate and a plaque to Tony Scott, who is the latest in a long line of Rothamsted weather recorders. Tony said,

"Weather recording, at what is known as the Rothamsted Weather Station, was set up by our founders, Lawes and Gilbert, when they became interested in the amount, and the chemistry, of rain that fell on an acre of land. In 1872 they took their interest in the amount of rainfall and its impact on arable crops to wanting to know how much rain water percolated through bare soil."

For this purpose, Lawes and Gilbert built three drain gauges each 'one thousandth of an acre' in size to match the rain gauge and to depths of 20 inches, 40 inches and 60 inches. Later, cylinders with pen recorders were fitted so that the rate of drainage could be measured as well. Today, these gauges are the oldest pieces of equipment still in use at the recording station. Weather recording at Rothamsted has in fact an even longer history.

The earliest records were made by Lawes' ancestor, Sir John Wittewronge, who, for five years from 1684, kept a weather diary. The Rothamsted weather records, are freely available via Rothamsted's Electronic Archive (e-RA).

Continued 175th birthday items...

To coincide with the landmark celebrations last year, a new display case has been made with samples of the 175th wheat crop grown on the Broadbalk experiment. The display case visually shows the effect of organic and inorganic fertilisers on crop yield and it will soon be located close to other case created for Rothamsted's 150th (1993) and 100th (1943) birthdays. Related to this, the guidebook to the Rothamsted Long-Term Experiments was updated in a project led by Dr Andy Macdonald. The book is available at: <https://www.rothamsted.ac.uk/long-term-experiments>

The new display case containing samples of the 175th wheat crop grown on the Broadbalk experiment, showing the effect of organic and inorganic fertilisers on crop yield.



International conference marks centenary of appointment of 'Father of modern statistics'

The 7th Channel Network Conference of the International Biometric Society met at Rothamsted in July, marking the 100th anniversary of the appointment of Sir Ronald Fisher as statistician at Rothamsted. Fisher was appointed in 1919 to assess what useful information could be extracted from the huge amounts of data amassed from the Rothamsted long-term experiments. Fisher devised and developed the concepts for the design of experiments and small-sample data analysis that are still taught and used the world over. For more information on the conference, see: <https://biometricsociety.org.uk/events/cnc2019>

Fisher's 'Millionaire calculator', purchased for £200 soon after his appointment in 1919 (equivalent to six months of his own salary!).

News *from Rothamsted Research*

Global Long-Term Agricultural Experiment Network (GLTEN) officially launched

Farms of the future must adapt to the global challenge of providing a nutritionally balanced diet to a growing population whilst promoting sustainable and fair socio-economic development. This can only be achieved through the optimisation of food production systems. Finding these alternative ways of farming sustainably requires an understanding of how land-use management impacts the environment over extended temporal and geographic scales. Around the world, there are many long-term agricultural experiments (LTEs) that have been running for several decades. Mining these resourceful LTEs' datasets can potentially improve our capability to refine our decision-making framework for future farming.

In October 2019, the Global Long-Term Agricultural Experiment Network (GLTEN) was officially launched with the aim of establishing and supporting a collaborative network within the international agricultural science community.

Co-ordinated from Rothamsted Research, the GLTEN is supported by over 50 LTEs across the world which represent diverse and contrasting climatic regions and environments, as well as multiple crop systems and land management schemes.

Our online portal, GLTEN-Metadata Repository, is committed to making the LTE metadata collection available online under a FAIR Data Principle (findable, accessible, interoperable, and re-usable). With the support of the GLTEN-members, the online portal provides tools for identification, assessment, and retrieval of LTEs Metadata, and facilitates the discovery and further interrogation of LTE datasets.

You are welcome to join us and engage in this ambitious initiative. Further details can be found at <http://www.glten.org> or by emailing glten@rothamsted.ac.uk.



New study on abattoir waste fertiliser

Tegan Darch led a recent study into the effectiveness of a fertiliser derived from abattoir waste as compared with rock phosphate fertiliser. In experiments growing grass or wheat, in either soil or sand, the abattoir-derived fertiliser either matched or surpassed rock phosphate fertilisers in terms of both yield and nutrient content of the plants. The results suggest using abattoir waste in this way could make an important contribution to phosphorus fertiliser needs in the UK and beyond. The study neatly echoes the origins of Rothamsted, where Sir John Bennett Lawes first created 'superphosphate' by dissolving animal bones in sulphuric acid in the 19th Century. The study can be found at: <https://doi.org/10.1371/journal.pone.0221647>.

Director to leave Rothamsted

Prof Sir John Beddington, Chair of the Board of Trustees of Rothamsted, and Prof Melanie Welham, Executive Chair of BBSRC, paid tribute to Prof Achim Dobermann who announced recently that he is to leave as CEO and Institute Director at the end of 2019, after 5 years in post. We wish Achim well for the future.

👤 **Andy Gregory**



Conferences

Congratulations go to Alison Carswell who attended the International Fertiliser Society conference in Cambridge in December 2018 and won best poster prize for "An assessment of the wider costs of three nitrogen fertilisers" (authors: A.M. Carswell, R. Shaw, J. Hunt, A.R. Sanchez-Rodriguez, K. Saunders, J. Cotton, P.W. Hill, D.R. Chadwick, D.L. Jones, T.H. Misselbrook).

The Askov Long-Term Experiment:

Celebrating the first 125 years



Established in 1894, The Askov Long-Term Experiment on Animal Manure and Mineral Fertilizers (Askov-LTE) is one of the very few agricultural experiment with treatments continued beyond 125 years. The inspiration was the field experiments initiated during 1843–1856 at Rothamsted.

The Askov-LTE allows a direct comparison of incremental and corresponding rates of N, P and K applied in animal manure or mineral fertilizers. Another unique feature is the layout with four replicate blocks (fields), each block with treatment replicates, allowing proper statistical analysis of treatment effects.

Records of crop yields stretch back to 1894 while systematic sampling and archiving of soil at 4-year intervals began in 1923. Archiving of crop samples began in 1949. With an extensive backlog of results from routine analyses of soils, crops and climate, and results from specific projects, the Askov-LTE continues to provide a unique and cost-effective research platform for studies in widely different research areas.

Invited speakers from the UK and Germany and 70 invited guests from across Denmark celebrated the 125 years of the Askov-LTE on 11 June 2019 at Askov Experimental Station. The Rector of Aarhus University, Prof. Brian Bech Nielsen, opened the celebration by stressing the experiment's role in facilitating high-quality international research as witnessed by the impressive output of scientific publications. Prof. David S. Powlson, Rothamsted Research, delivered the key note on long-term field experiments in global research, after which he presented to the Rector a special congratulation certificate on behalf of the Director of Rothamsted Research.

Then followed contributions by Prof. Amy Bogaard (Institute of Archaeology, University of Oxford, UK), Senior Researcher Jan Dolfing (School of Engineering, Newcastle University, UK), Prof. Roland Bol and PhD student Yajie Sun (Institute of Bio- and Geosciences, Forschungszentrum Jülich, Germany), and finally PhD student Johannes L. Jensen (Department of Agroecology, Aarhus University). The speakers demonstrated how the Askov-LTE supports studies on pre-historic manuring practice, the appearance and longevity of antibiotic resistance genes, decadal scale accumulation of uranium applied in fertilizers and lime, and the N legacy of long-term additions of manure and mineral fertilizers.

A selection of posters, manned by researchers from Department of Agroecology and presenting further studies based on the Askov-LTE, inspection of equipment used for daily management of experimental plots, and a guided field tour ended the day. To remember the day for the next 125 years, every participant had a souvenir, a small sealed bottle with soil kept unfertilized since 1894.

What a great day.

- **Bent T. Christensen**, *Professor, Aarhus University*
David S. Powlson, *Lawes Trust Senior Fellow,*
Rothamsted Research

BSSS at Open Farm Sunday 2019

As with previous years BSSS got involved with LEAF Open Farm Sunday in order to promote soils in our neighbourhoods.

The Scottish, Midlands, South Eastern and South Western regional groups showcased our love of soils at some great locations and the interest and engagement from the public was fantastic.

All of us who attended and helped out had a great time and feedback was overwhelmingly positive.

If you would like to promote BSSS at a local farm near you in 2020, please contact events@soils.org.uk

Below is some feedback from each of our events...

The James Hutton Institute, Dundee *Matt Aitkenhead and Gillian Stirton*

The James Hutton Institute's Mylnefield Farm near Dundee was visited by over 1600 people during Open Farm Sunday. The Farm is right next to JHI's Dundee site and so visitors were free to explore and participate in several activities including tractor rides and tasting bread made from beans, and also climb into the soil pit with Matt Aitkenhead and learn about soil! The threatened rain never materialised and although it was a bit windy everyone had a good time. A lot of ice-cream was consumed, which is a measurable indicator of success, and the map of Scotland carved out of the landscape was definitely worth a visit. We're already looking forward to next year, although for 2020 I may take a change of shoes – the inside of my car is still filthy!



▲ Dr Matt Aitkenhead

◀ A chance to get your hands dirty...





Neil Fuller

Bedfordia Farms, Milton Earnest MK44 1YU

www.bedfordiafarms.co.uk

Neil Douglas Fuller

The Open Farm Sunday event at Bedfordia was a huge success. The farm staff were fabulous, the weather was glorious, the soil profile was exceptional and generated huge amounts of interest from all age groups. The BSSS goodies went down a treat, in fact they ran out by lunch.

The event attracted over 2400 visitors, many of whom spent time in the soil pit looking at roots and counting earthworms, and raised over £5,500 to support air ambulance and five local schools. Lots of interest on the day about how soil becomes food and what farmers can do to help soil mend the planet. The children thoroughly enjoyed getting their hands dirty and really engaged with the idea that “healthy soil equals healthy people”. Lots of lively debate about climate change, the value of food and how we can lighten our Carbon footprint, and quite a few requests for follow-up visits to schools too.

It was great to be able to showcase the superb work the farm is doing to achieve sustainable soil management goals, and the benefit this brings to the local community. I would thoroughly recommend to any of the membership to get involved, and have already signed up for the next event.

BSSS at Open Farm Sunday 2019

Park farm Thorney nr. Peterborough, 7 Park Farm, Sandpit Road, Thorney, Peterborough, Cambridgeshire, PE6 0SY

Lizzie Sagoo, Kate Smith and John Williams

Thank you for your help and materials sent for Open Farm Sunday. We had a great weekend (Park Farm opened on Sat & Sun). We had a soil pit, buckets of different types of soil and all the materials you sent. Everything you sent was taken – the posters were particularly popular with adults (spoke to several teachers, a child minder, school governor and a couple of parents who home educate who all thought the posters were great). The little furry bugs were a bit hit with the children!

The farm have asked us to go back again next year.



▲ Lizzie Sagoo, ADAS

▼ John Williams, ADAS



G's Fresh, Barway, Ely, Cambridgeshire, CB7 5TZ

<https://www.facebook.com/gsofs/>
Tom Sizmur

Well over 6000 visitors came to G's farm in Barway, Cambridgeshire for a fun packed day full of activities covering all aspects of food and farming. Soil Scientists from the University of Reading and University of Leicester managed the 'soil zone' where visitors could see the soil beneath their feet in the interactive soil pit, dig for and identify earthworms, and test the pH of the various different soil types around the farm. After participating in the activities, children were given an edible jelly worm, and more than 500 of these were handed out throughout the day (although we can't guarantee that some didn't have more than one each). The day was fun and engaging for both the visitors and researchers.





Tegan Darch

Farrington's Farm, Home Farm, Main Street, Farrington Gurney, Bristol BS39 6UB

Tegan Darch

The event went really well and was certainly popular – around 1200 people arrived at the farm over the day! The farm had dug us a huge soil pit that the kids could get down into, which proved a great draw, as did the angle and spade! They'd dug the soil pit in a different place to last year, and a great profile was evident. Many of the younger kids just wanted to explore an unknown environment, but with the older ones we highlighted the importance of soils for water and nutrient provision for plants, and discussed the diversity of organisms living in the soil. We also took some coloured soils for the kids to make stuff to take away, and we'd run out of tubes by midday. But they still loved hearing about why the soils were different colours, and how it related to other things they knew about (e.g. iron). A lot of visitors left with a copy of the "Wilf the Worm" comic

Farringtons asked whether we'd go back there again next year.

We were also contacted by two farms in Northamptonshire on the back of a very popular tweet by our member Lizzie Sagoo. Unfortunately we were unable to find any volunteers to go to these farms, but we sent them lots of BSSS goodies which they were very grateful for.

There is a demand for soil knowledge at these events, especially for enthusiastic real life soil scientists to stand in a pit and talk about soils.

Our members (you) can play a big role in educating the public and this is a real driver of the society.

Please do let us know if you would be up for helping next year as we will always need more volunteers!

World Congress of Soil Science 2022 Glasgow

*On the 4th November 2019 we hit a landmark in the timeline to the World Congress in Glasgow – just 1000 days until the start of the Congress. We used that as an opportunity to launch our **logo**, which was designed by our Professional Conference Organisers, Speakeasy, based on ideas and concepts we set out and refined through a good number of iterations.*

Closer to the event we will share more details of what we feel the logo represents. But we would be happy to hear feedback now from all members on your thoughts on the logo and how it resonates with you.

In our launch communication we highlighted how, at a time of global concern for our planet and its growing population, managing our soils sustainably has never been as important. 90% of our food comes from soil, as does all of our timber and other fibre. Soil, and the ecosystems it supports, have a huge role in mitigating against climate change, is a vast reservoir of biodiversity, plays a significant role in flood management and contains key evidence of past civilisations. Our understanding of the importance of these functions is developing rapidly and the Congress provides the ideal setting to discover the international state of the art in these critical global issues and an opportunity to connect across all who work with and rely on soils.

The development of the scientific programme is continuing. **We have set out initial ideas for themes for the Plenary Sessions as follows:**

- Soils and food security;
- Soils and their contribution to human health;
- Soils and biodiversity;
- Soils and their contribution to multifunctional landscapes;
- Soils and their role in climate change mitigation and adaptation; and
- Soils, human evolution and societal well-being.



Our aim is to recruit engaging speakers with expertise outside soil science but where they can offer perspectives of the role of soils relative to their key expertise in these global themes. I would encourage you to get in touch with the Division Vice Chairs if you have ideas on themes, content or speakers. **As a reminder the Vice Chairs are:**

Division 1 Soils in space and time:

Matt Aitkenhead / Jack Hannam

Division 2 Soil properties and processes:

Paul Hallett / Leo Condron

Division 3 Soil use and management:

Bob Rees / Tom Aspray

Division 4 The role of soils in sustaining society and the environment: Christine Watson / Lorna Dawson

Contact details for the Vice Chairs can be found on the IUSS website (<https://www.iuss.org/organisation-people/people/>).

Working Group Members

David Manning

Ian Rugg

Jack Hannam

John Hollis

Peter Gregory

Sacha Mooney

Wilfred Otten

Willie Towers



We are collaborating with the Centre for Contemporary Arts and the Natural World (CCANW) and a collective of artists on developing a **programme of arts and cultural events** in the lead up to the Congress. With our support, CCANW have just submitted a bid to Creative Scotland for the early stages of an ambitious two-year art/science programme focussed on the importance of soils to humanity's future. This will also seek to link COP 26 (the United Nations climate change summit, to be held in Glasgow in November 2020) and the World Congress and will include:

- An art/science engagement programme for school children;
- An artist residency at Holyrood Park and ASCUS (art and science not for profit organisation) and exhibition at Summerhall (vibrant cultural village in the heart of Edinburgh);
- A one-day innovative symposium in Summerhall at the opening of Edinburgh Science Festival;
- Soil/art themed workshops will be held at Garvald (Scottish charity) for people with learning disabilities;
- A concluding activity in central Glasgow involving the creation of an impactful artwork / performance during COP26; and
- Research and planning for a second phase of activities across the whole of Scotland leading to the World Congress in 2022.

If successful a large funding application will be submitted next year for the subsequent phase.

The **tour programme** continues to be advanced. The Netherlands and Ireland are now progressing the development of tour itineraries and we are starting to add detail to proposed tours in the UK. We probably have more ideas that we can deliver — one option we are looking at is to create virtual tours to supplement the physical tours we are running which will form part of the legacy of the Congress and which can be used as a template to develop further virtual tours for areas we have not been able to visit.

There remains much to do but I am confident we are moving forward well, and I would like to thank the World Congress of Soil Science Working Group for their continued efforts and dedication. Please get in touch if you have any ideas for the Congress or can offer support.

📍 **Bruce Lascelles,**
WCSS 2022 Working Group Chair

NEXT STOP — GLASGOW 2022



World Congress of Soil Science 2022
in Glasgow, Scotland UK • 31st July — 5th August



Further info...

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 April 2020. Please send in plain text format and images as separate high resolution files.

Annual General Meeting

The next Society Annual General Meeting is on Tuesday 1st & Wednesday 2nd September 2020.

Council Meeting

The next meeting of Council will be on Thursday 19th March 2020.

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)

In the next Issue:

THE Auger

JUNE 2020

- Meet the new Executive Officer...
- Meet the new Regional Group Chairs...
- My Life as a Soil Scientist...

Book Review

Managing the Triad

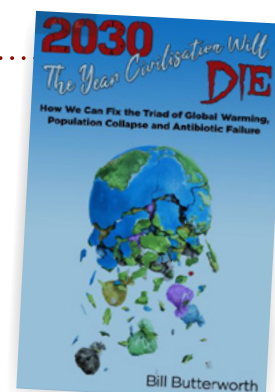
This book is not about global warming and whether it is taking place, nor how fast it is and what effects it will have. Nor is it about population growth. Nor is it about running out of effective vaccines and antibiotics.

Those issues, in isolation, are covered in great depth by many other sources. This book brings the three together, considering the possibility of the triad becoming critical at the same time. Experts disagree on exact dates, but the most likely period this will happen to us is some time between 2030 and 2040 if we are lucky, a little earlier if not!

If and when this three-fold tipping point occurs, there will only be a short period before a major collapse in global population, a humanitarian disaster on a scale of unprecedented magnitude.

This book is not designed to scare or frighten the reader, but to help them consider the true risk of this upcoming catastrophe. Once understood, it then details a powerful solution available to us with current technology: the global Bio-Active Carbon Sink.

● Bill Butterworth





Augering on...

DIARY DATES 2020

Council Members 2020:

| | |
|---|---------------------------------------|
| 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: | Dr Deyi Hou |
| Professional Practice Committee Chair: | Dr Tom Aspray |
| Professional Practice Committee past Chair: | Mrs Anna Becvar |
| Professional Practice Committee Chair Elect: | Dr Mike Palmer |
| Treasurer & Trustee: | Anna Becvar (covering) |
| Governance Secretary & Trustee: | Professor David Hopkins |
| HR Trustee: | Professor David Hopkins (covering) |
| Chair of Education Committee: | Dr Jacqueline Hannam |
| Midlands Regional Group Chair: | Dr Andy Tye |
| Northern Regional Group Chair: | Dr Manoj Menon |
| Scottish Regional Group Chair: | Dr Sarah Buckingham |
| South East Regional Group Chair: | <i>to be confirmed</i> |
| South West Regional Group Chair: | Dr Leila Froud |
| Welsh Regional Group Chair: | Mr Ian Rugg |
| Early Career Representative: | <i>to be confirmed</i> |
| Ordinary Members: | Dr Eleanor Reed Dr Leila Froud |
| Executive Officer: | <i>to be confirmed</i> |

Diary Dates 2020:

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

19th March 2020

Council Meeting
London

7th June 2020

Open Farm Sunday

10th June 2020

Council Audio Conference

24th to 28th August 2020

Eurosoil
Geneva, Switzerland

1st September 2020

Council Meeting
Glasgow

2nd & 3rd September 2020

Annual Conference
Glasgow

16th & 17th September 2020

Land Remediation Expo
NEC, Birmingham

2nd December 2020

Council Audio Conference

5th December 2020

World Soils Day

British Society of Soil Science

Building 42a, Cranfield University,
Cranfield, Bedfordshire MK43 0AL

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a Registered Charity No. 1134456.

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 reduce 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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