BRITISH SOCIETY OF SOIL SCIENCE

soilmatters

VOLUME 1 – ISSUE 2 | DECEMBER 2021 | THE MAGAZINE OF THE BRITISH SOCIETY OF SOIL SCIENCE

FORMERLY 'THE AUGER'

Society Attends COP 26

OFFICIAL OBSERVERS TO THE UN CLIMATE CHANGE CONFERENCE

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ANNUAL CONFERENCE
A summary of Soil Health: From Principles to Practice

WCSS 2022
Join us next summer in Glasgow from 31 July - 5 August

ZOOM INTO SOIL
Overviews from our 2021 lunchtime webinars

NEW CORPORATE MEMBERS
Arcadis, ECT and ADAS have joined the Society!

Welcome to our newest members who have joined us between November 2020 and November 2021!

Early Career

Clement Aardweg
Olivia Azevedo
Sophia Bahddou
Ellie Barbrook
Fred Baring
Argha Basu
Roza Bilas
David Boldrin
Yolande Booyse
Karolane Bourdon
Erica Bower
Rose Boyko
Douglas Brown
Erik Button
Sharon Chebet
Joe Collins
Luci Corbett
Hazel-Roze Cubbage
Merve Demir
Emma Duley
Deevena Elias
Urhie Ewhoyerure Joseph
Rachel Fishman
Jessica Flack
Poppy Frater
Mollie Frost
Paul George
Kieron Harper
Maria Hernandez-Soriano
Mary Hodgson
Emily Howes
Md Dhin Islam
Josiah Judson
Samantha Kehoe
Joshua Kesselman
Juniper Kiss
Snezana Lee
Amy Lewis
Caitlin Lewis
Changjia Li
Bel Lovel
Geoff Lovett
Luigi Marfella
Emily Marr
Tinashe Mawodza
James McDonald
Amy Miller
Nancy Muringai
Maria Nolan
Bethany Norris
Dorcas Ojeade
Eleanor O'Neill
Rachael Osguthorpe
Will Pallier
Annette Raffan
Keeren Rajoo
Taco Regensburg
Flora Reid
Harriett Ricketts
Helen Ripley
Doyinsola Simbiat Sonoiki
Marios Stamatiou
Katy Stanton
Kevin Stott
William Tamblyn
Matthew Tarnowski
Jane Thatcher
Ffion Thomas
Imelda Uwase
Christina Van Midden
Alexandre Wadoux

Full

Lewis Bird
Lisa Cole
Adrian Crew
Felicity Crotty
Falah Hamad
William Hartley
Richard Hewison
Csilla Hudek
Frances Manning
Andrew May
El Abbas Doka Mohamed Ali
Gary McClean
Mark Nason
Junko Nishiwaki
Marcos Paradelo Perez
Philip Putwain
Carla Richmond
Jenny Rowbottom
David Royle
Binoy Sarkar
Daljit Singh
John Thompson

Technical

Rebecca Cornwell
Sebastian Graff-Baker
Jonathan Griffiths
Sally Hoare
Martin Hood
Zander Metcalfe
Michael Muir
Vaishali Phippen
Jason Winslow

Associate

Jude Allen
Philippe Baveye
Andrew Black
Kristy Blakeborough
Jim Brown
Lilian Cooper
Tracey Daley
Ute Davies
Elizabeth Edwards
Steve Fancourt
Dorothy Gilmour
Helen Glanville
Tracy Gleeson
Julian Gold
Russell Hayton
Mark Hemmant
Nicola Holden
Fei Jin
Tony Kernon
David Kilham
Alastair McDermid
John Miles
Christopher Molyneux
Charity Moore
Robert Murray
Ifeoluwa Oluwaponle
Tom Scrope
Kate Shirley
Mary Silk
Charles Siggs
Beth Speakman
Andy Spetch
Louise Tavasso
Arthur Taylor
Emma Thorpe
David Thring
Rachel Todd
Peter Wilhelmsen

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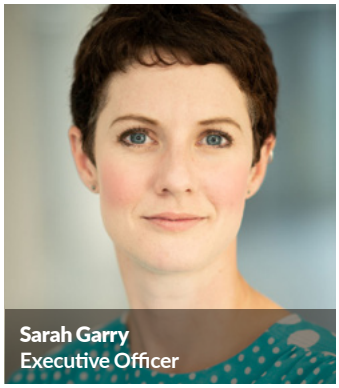
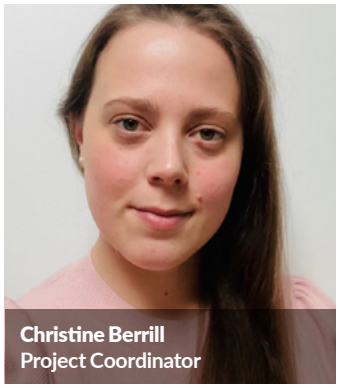


Sarah Garry
Executive Officer

Natalie Coles
Senior Administrative Assistant



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Cover: Sarah Garry attends the UN Climate Change Conference, COP26, in Glasgow.

Executive Officer Welcome

Welcome to our final edition of Soil Matters in 2021 in what has been an incredibly busy, but extremely productive few weeks for the Society. Our activities and initiatives have also meant that our strength in numbers continue to grow, with our highest number of individual members for many years, 850 at the last count (a 15% increase from this time last year) alongside our first three Corporate Members of the Society. This growth, combined with the positive feedback from our member survey (page 8), demonstrates that the Society's direction of travel is meeting members' needs.

Although we will publish our Annual Report in spring 2022, which will set out all of our key achievements during the year, as I reported in my welcome in the last issue, we are now collecting data which allows us to report on how we are meeting our mission to halt and repair soil degradation through knowledge-sharing.

We now know that our improved and tailored activities are having a better than anticipated impact, proving the value of the activities we are undertaking on behalf of our members:

- Our virtual Annual Conference (see page 14) was attended by over 120 delegates with 97% rating the speakers and their content as good or excellent and with 98% reporting that they had learnt something new as a result.
- The Early Careers Conference (page 22), which took place over three days and featured a number of oral and poster presentations and keynote sessions from Dr Binoy Sarkar, Professor Mark Fitzsimons, Dr Olaf Schmidt, Dr Helen Simpson and Phoebe Weston, an environmental journalist at The Guardian, was rated as very good or excellent by 100% of attendees.
- We have so far delivered seven Zoom into Soil sessions on topics as wide-reaching as the cultural aspects of soil (hosted by two artist colleagues) and Environmental Impact Assessments, a joint webinar with the Institute of Environmental Sciences. In our Soil Compaction session, 67% of attendees indicated that they would use the knowledge learnt as a result of the session in their future work.
- Our Editors have led our Soil Use and Management and European Journal of Soil Science journals to achieve increased Impact Factors: demonstrating the value members and external audiences place on the content within both publications.

In early November, we also launched our Science Note: Soil Carbon (page 7), bringing together our members' expertise to provide a clear, comprehensive overview of the science on soil carbon and setting out our recommendations based on the current science. This is a game-changer for the Society and clearly establishes our collective expertise and independence to governments, stakeholders and lay-people.

We continue to take your feedback on board to make sure the Society continues to change and adapt, and our member survey (page 8) doesn't just share the good, we also share the areas you have identified we need to improve. Here you will see that we have also set out what we plan to do in response to your feedback and ensure the Society continues to offer membership which suits the needs of current and future members.

On page 9, you can see more detail of our strategic plan for 2022 which understandably includes the World Congress of Soil Science at front and centre! The Congress will not only be our key activity next year, but also provides a real potential to create a lasting legacy for soil science. We are already developing key stakeholder relationships through both our arts programme, Our Living Soil, and our policy day at the Congress aimed at policy-makers and stakeholder organisations, which will be held on Tuesday 2 August. The intention is that these relationships last over the long-term and we provide clear outputs from the event which can be used well into the future, to provide benefit for those unable to attend. Further information on Congress activities and how you can get involved are available on pages 10 and 11.

I would like to finish by thanking all of our volunteers: Board, Council and Committee members for their support over the last 12 months. Without their continued enthusiasm and energy, we would not have been able to deliver the amount of quality activities which you will see in this magazine.

Wishing you all the best for the festive season and I look forward to working with you all in the new year.

Best wishes,

Sarah Garry
Executive Officer

"We now know that our improved and tailored activities are having a better than anticipated impact, proving the value of the activities we are undertaking on behalf of our members."

President's Welcome

"It was really useful for us to be present at COP26, and I would like to thank Sarah and Mark Nason, one of our Council members, for making the effort to support our presence in Glasgow over the two weeks."

Dear Members, I hope you are all well and looking forward to a break of some sort over the festive period.

I'm writing this as I sit in the Scottish Event Campus (SEC) in Glasgow at the end of a day at COP26. This is where we will be for the World Congress of Soil Science (WCSS) next summer, and it is great to see the venue full of activity and experience some of the aspects that our delegates will experience; the signage in the city centre, the journey to and from the venue, volunteers helping attendees find rooms, plenary speeches in the main halls, smaller meetings in the side rooms, a vibrant exhibition hall, the great (predominantly Scottish-sourced) food and not least the warm welcome from everyone you meet across the city.

Sarah and I also visited the SEC in late September, with fellow WCSS2022 Board Director David Manning and our Professional Conference Organiser Colette Black-Heaton, to meet the SEC and Glasgow Convention Bureau teams and sign the contract with the venue. Another conference was under way when we visited and again it was really encouraging to see the exhibition hall full of exhibitors and delegates taking in the science being presented in the auditoriums. We have had over 1900 abstracts submitted: a fantastic achievement and a really good sign that we will get the level of attendance we are hoping for. The team are continuing to work hard to keep all the workstreams moving forward in accordance with the programme, and I thank everyone involved for their continuing efforts and commitment.

Back to COP26. I hope that by the time you are reading this we have seen the draft agreement published by the UK Government part way through the second week of COP26 strengthened and agreed by all nations. There was a lot of discussion around regenerative agriculture and nature-based solutions and recognition by many that equal investment in mitigation and adaptation were absolutely critical to the long-term solution. As soil scientists we have a clear role in supporting the successful design and implementation of the solutions needed, and part of this will need us to raise our voice more loudly in the debates to come and support the drive to evidence-based policy and legislation.

It was really useful for us to be present at COP26, and I would like to thank Sarah and Mark Nason, one of our Council members, for making the effort to support our presence in Glasgow over the two weeks. Some new relationships were fostered and existing relationships strengthened and being present gave a much greater insight into the discussions and therefore what our role needs to be in the future. In September the Board held a facilitated strategy discussion session which is being followed up with further discussions around the detail of the strategy. It was clear that the strong science undertaken by our members and published in our two journals had to remain at the core of the Society, but it was also clear that we needed to use this to increase our impact and influence with evidence-based discussions. This aligns absolutely with the discussions at COP26 and the need to keep on promoting the importance of soil in relation to both climate change mitigation and adaptation.

With the award of permanent Observer Status to attend all future UN Climate Change Conferences as a Non-Governmental Organisation (NGO) we can continue to ensure this is clearly highlighted and continue to build partnerships to strengthen the message.

Thank you for your continued support across all our activities. It has been a really busy year for the Society and I am certainly looking forward to a break over Christmas and I would like to wish you all a Merry Christmas and best wishes for the New Year.

Dr Bruce Lascelles
President 2021 - 2022

New Board Members

We are delighted to confirm that at our AGM, members appointed Anirban Sarkar as Finance Trustee and Brian Westbury as Governance Trustee.

Anirban Sarkar is a finance professional with over 16 years of experience in financial services across strategy, planning, reporting and analytics. He is currently Head of Strategic Analysis at HSBC and responsible for financial analysis supporting Group Strategic Plan and driving an organisation wide project to transform planning and forecasting, making these more real-time and dynamic by leveraging modern technologies.

Brian Westbury is Academic Dean at the Faculty of Forensic and Legal Medicine and has qualifications in Dentistry, Law and Psychology. He has previously been a School Governor and is now part of the Senior Leadership Team and Board at the deanery.

We are delighted to have Anirban and Brian join us as trustees and would like to extend our warm welcome to the Society's Board.

A very big thank you also go to our outgoing trustees, Anna Becvar and David Hopkins for their support over many years.

Anirban Sarkar

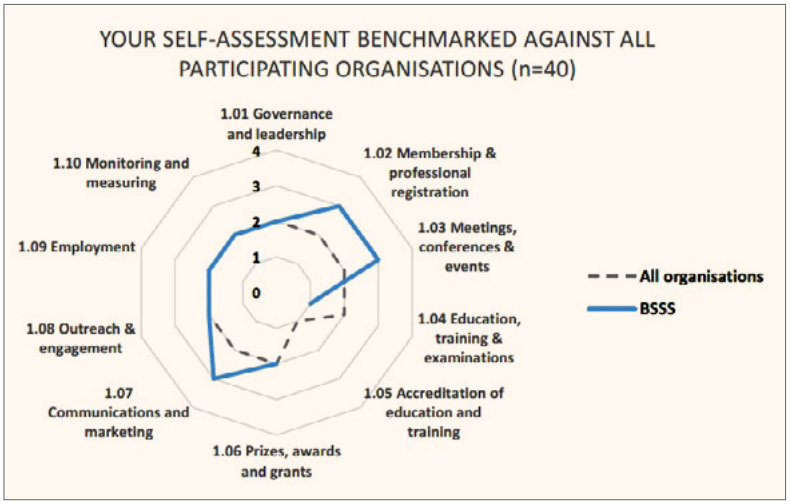
Brian Westbury

Science Council Diversity Report

Earlier this year, the Society were one of 40 organisations who participated in the Science Council's 2021 benchmarking exercise using Progression Framework 2.0. The framework is a self-assessment tool for organisations to score their performance for Equality, Diversion and Inclusion (ED&I) across ten key areas, including governance and leadership, membership, events, training and marketing.

We are pleased to report that the Society has improved on its self-assessment since the last exercise was carried out in 2017 and that we are inline or ahead of the other participating organisations when benchmarked against their results. The Society were commended for our progress on diversity and inclusion, with particular reference to our ED&I and Ethics policies.

The benchmarking exercise also highlighted areas for development and recommendations for action which we look forward to working on for the future.



AGM Minutes

Over 100 delegates joined online for the Society's 75th Annual General Meeting (AGM) on Tuesday 7 September.

Members voted in favour of the special resolution to update the Society's Articles of Association, including reducing the number of members required for a quorum at General Meetings, from 10% to 5%. Changes to the Society's Bye-Laws, which spanned all sections of the document, were also approved.

Members appointed new Council members and Committee Chairs in Kirsty Elliott for the Early Careers Committee, Lois Phillips for the Education Committee, Sacha Mooney for the Grants and Awards Committee and Iain Gould for the Midlands Soil Discussion Group as well as Mark Nason as an Ordinary Council Member.

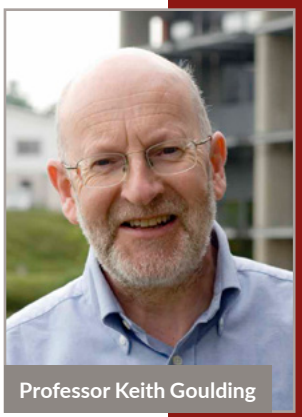
Congratulations to all those newly appointed and thank you to our outgoing Council members Dan Wardak, Jack Hannam, Bruce Lascelles and Andy Tye for their support over many years.

If you weren't able to attend, the video of the AGM and minutes are available on our website.

New Honorary Members

BSSS members voted overwhelmingly in favour of electing two new Honorary members:

- **Professor Keith Goulding** – A former President of BSSS, Keith has showed leadership and made enormous contributions in nutrient cycling, especially of nitrogen, phosphorus and potassium; nutrient losses from agriculture, especially nitrate leaching and nitrous oxide emissions; farm system studies; acid rain and soil acidification. These were recognised when he was awarded Highly Cited Scientist status by Clarivate in 2018.
- **Professor Margaret Oliver** – A former BSSS Council member and Editor-in-chief of the European Journal of Soil Science, Margaret has made outstanding contributions to soil survey through innovative sampling design, estimation and spatial prediction, especially in the application of geostatistical theory. She has provided new knowledge on radioactivity and pollutants in soil, and comprehensively reviewed current knowledge on role of soil on human health.



Professor Keith Goulding

Professor Margaret Oliver

Congratulations to both Keith and Margaret!

#GROUNDED

We are delighted to announce that #Grounded, the campaign we launched last year, has been shortlisted for two awards:

- **the 2021 Short Film Prize of the 11th edition of the International Environmental Film Festival on the theme Actions!: www.blogs.univ-tlse2.fr/fredd/?doing_wp_cron=1621955769.1739621162414550781250**
- **the Film Bahari (Indonesian Film Festival) awards for Short film: www.filmfreeway.com/FestivalFilmBahari.**

Watch the video here: www.soils.org.uk/grounded.

SCIENCE NOTE: SOIL CARBON

BRITISH SOCIETY OF SOIL SCIENCE

At the beginning of November to coincide with COP 26, we launched our first Science Note on the topic of Soil Carbon where our recommendations to governments included that long-term financial incentives are introduced to encourage sustainable soil management practices, particularly in a bid to store soil carbon.

Soils contain more carbon than in the atmosphere and vegetation combined and are therefore an essential carbon store. Increasing soil organic carbon content through sustainable soil management (or regenerative agricultural) practices, can improve soil health, the efficiency of food production and water quality. As carbon gains can be easily lost, affecting efficient soil usage, the note recommends that any incentives to support farmers and other land-owners to sequester carbon, are made over the long-term.

Sustainable soil management, often known as regenerative agricultural practices, includes reducing the amount of tillage, planting 'cover crops' to cover the soil throughout the year and between cropping plants and introducing organic material to existing soils. The note also encourages smaller land-owners and gardeners to introduce these practices on their land to increase the amount of carbon in their soil.

Further recommendations include protecting existing carbon stores in permanent grasslands, moorlands, peatlands, wetlands and woodlands and carefully considering the application of rock dust or biochar, to ensure they do not negatively impact on soil quality through pH change.

The *Science Note: Soil Carbon* is available as a technical, fully referenced document and as a short, summary document via: https://soils.org.uk/education/guidance-and-science-notes.

Thank you to Paul Newell Price who Chaired the task group established to deliver the note along with group members, M. Fernanda Aller, Anne Bhogal, Deborah Crossan, Lorna Dawson, Andy Gregory, Lewis Peake and David Tompkins for their contributions.

75th Birthday

The Society turns 75 next year and we are looking forward to celebrating in person with you! Taking place during the World Congress of Soil Science in Glasgow, join us at our Annual General Meeting on Tuesday 2 August 2022 from 7:00 – 9:00pm for a glass of fizz (or non-alcoholic alternative) and a piece of cake to celebrate.

Keep an eye out next year for our birthday merchandise available to purchase!

Membership Renewals

Memberships for 2022 are now due for renewal and an invoice has been sent to members by email.

This year, the Society has implemented a small increase in membership fees, which have not been increased for four years. We hope you will agree that membership of the Society still represents excellent value for money.

Member Type	2022 Rate
Associate and Early Careers	£35
Technical	£40
Full	£60
Fellow	£80

To access your renewal invoice and process your membership payment, please log in to the members' area of our website to pay via PayPal. Payment can also be made by bank transfer.

We have recently moved our direct debit process to GoCardless to support a safer and more efficient management of payments. If you would like to pay your membership fee by annual direct debit, this will be collected on **15 January 2022** and please contact us via admin@soils.org.uk to arrange this.

We would like to take this opportunity to remind you of the Code of Conduct for members which outlines the obligations of membership, professional conduct and practice and standards of conduct for all Society members. By continuing your membership of the Society, you are agreeing to meet and abide by this code: https://soils.org.uk/about-us/governance/code-of-conduct-members/.

Thank you in advance for your continued support and we look forward to the exciting year ahead!

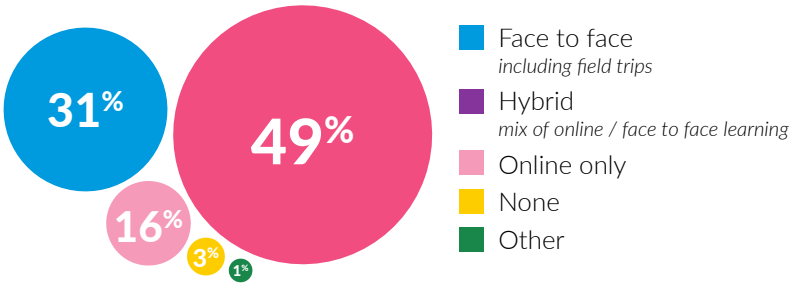
PayPal GOCARDLESS

Member Survey Results

During Summer 2021, we distributed a survey to members and non-members, collecting responses to help better understand members' needs and guide future strategy. The purpose was to hear from respondents on the types of work they undertook with soils, and training which they felt would be helpful to enhance their or their employees' understanding of soil science.

With the data collected and presented in a supporting document, it will be used to guide future membership offerings and training courses to help deliver the training that those working with soils require.

Format of Future Training

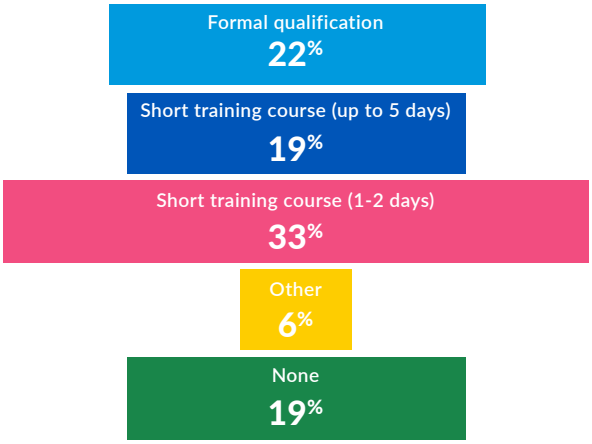


In your words...

"I think BSSS has done particularly well with adapting virtual technology to enable workshops, conferences and other events to be beamed to the far corners of the world. Keep this up!"

Interest in Further Soil-Related Qualifications

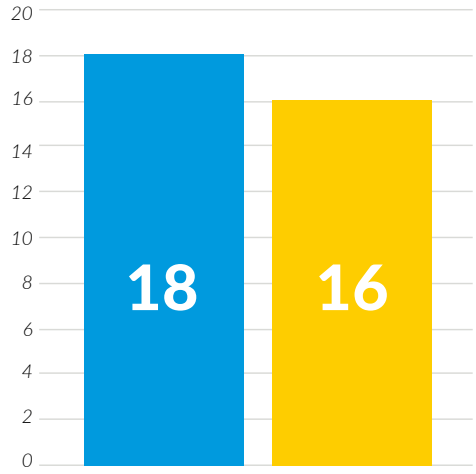
All respondents under the age of 35 expressed interest in obtaining a further soil-related qualification, with a formal qualification such as a Postgraduate Certificate or Diploma proving the most popular. For respondents over the age of 35 who would be interested in a further qualification, a 1 - 2 day training course was most preferred.



In your words...

"It would be great if there were either more resources, signposts to resources or more training and events to continually develop practical soil science within industry. Especially for members who have transferred from academia to industry."

Interest in Becoming a Chartered Scientist (CSci) or Chartered Environmentalist (CEnv)



In your words...

"No interest in CSci or CEnv as it is not really valued or relevant in academia."

BSSS RESPONSE: The Society has 42 Chartered Scientist (CSci) members and it is interesting to see that members responding to this survey are interested in becoming a CSci. We are working more closely with the Science Council to help existing members, particularly those who work for CSci Employer Champions, to provide them with the tools they need to become CSci accredited.

Our Professional Practice Committee is reviewing the opportunity to offer Chartered Environmentalist based on members' feedback.

See the full results at: www.soils.org.uk/wp-content/uploads/2021/11/BSSS_Member-Survey-Final-Version.pdf

Society Strategy 2022

In early 2022, we will publish our Annual Report, setting out the achievements and impact which the Society had during 2021. An ideal opportunity to see how members' support has helped us to provide valuable professional information to you, and wider stakeholders.

Our Council met on 2 December and approved our 2022 strategy: agreeing the operational activities that we will undertake to best deliver our mission in the year ahead.

The strategy is guided by seven principles which Council agreed to implement from 2020 – 2025. These are:

1. Seeking to publicise the key issues for the soil science community
2. Promoting change through knowledge exchange across all aspects of soil science
3. Hosting conferences and meetings focused on soils
4. Supporting and encouraging the education of soil science
5. Inspiring the future generations of soil scientists
6. Ensuring high standards of professional practice for those working with soils
7. Leading on the social and environmental responsibilities of a contemporary society.

2022 activities will include:

- Developing further guidance and Science Notes on high-profile topics to support members
- Deliver short videos to promote the importance of soil to a wider audience
- Continuing to deliver the Zoom into Soil webinars
- Supporting awarding organisations in the development of the proposed Natural History GCSE and the T Level in Agriculture, Land Management and Production
- New members only pages on the website – providing a secure area to store details of discounts and benefits for members, alongside member only resources and documents
- A bi-monthly email update exclusively for our Early Career members
- Introducing a new Award to recognise the input our members and volunteers make to the Society.

GLASGOW22
22ND WORLD CONGRESS OF
SOIL SCIENCE

Our main focus during 2022 will be the World Congress of Soil Science and further information is available on pages 10 and 11. Activities surrounding the World Congress will include:

- Delivering the Soil Judging competition, including opening up the training element to those not attending the competition but who are interested in obtaining practical soil skills
- Enter a UK team into the Soil Judging Competition
- A Gala Dinner
- Day, Pre- and Post-Congress tours
- A specific policy day, focused on bringing governments and stakeholders together to focus on practical implementation of the science
- The Our Living Soil arts programme
- Outreach activities at the Glasgow Science Centre
- A networking event for Early Career members and the AGM
- A range of promotional merchandise to celebrate the World Congress and Society's 75th anniversary.

Further to being awarded permenant Observer Status, Council will also consider the outcomes from COP 26 and what our engagement with COP 27 in Egypt should be.

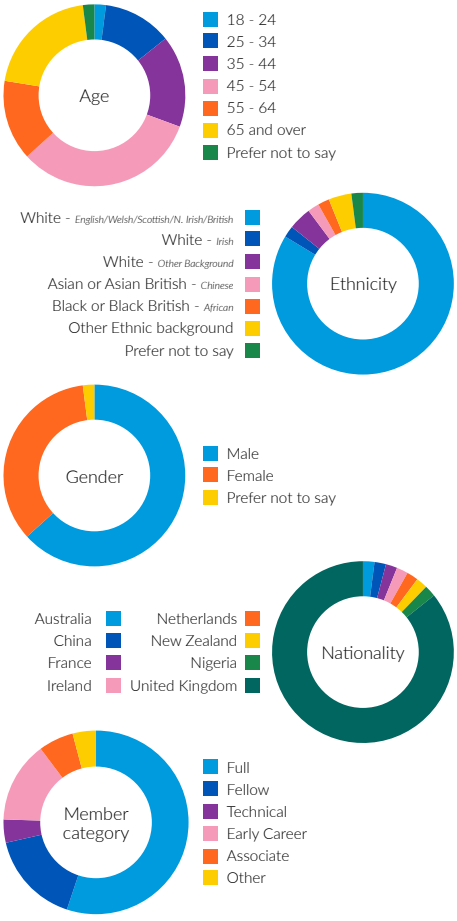
We are always on the look-out for enthusiastic members to join our committees and help us to implement our strategy. Details of our committees are available on page 30 and if you are interested in finding out more about any of them, please contact exec@soils.org.uk.

WINNERS

Member Survey Competition Winners

Thank you to everyone who completed our member survey over the summer – we had a fantastic response from both members and non-members! Congratulations to Izzy Lloyd and Laura Moreno who were selected at random to win a £25 gift card each.

Member Analysis



Join us at WCSS 2022

The British Society of Soil Science (BSSS) is delivering the WCSS22 at the SEC in Glasgow in summer 2022 on behalf of the International Union of Soil Sciences (IUSS). As we descend into the final days of 2021, developments and planning for the WCSS22 continue at pace; the turning of the year brings us into the final stages of delivery and the finish line begins to come into sight after years of dedicated effort from behind the scenes! 2022 promises to be an exciting year for soil science and there is plenty for everyone to engage with. Read on for details of what you can expect from the WCSS22!

With the end of November came the deadline for the submission of abstracts for poster and oral presentations, this marked a significant milestone in the planning and preparation of the Congress and with over 1900 abstracts received we have been ecstatic with the support shown by the soil science community. We will be responding to all applications early in 2022, keep an eye on your inbox! Details of the programme and finalised lists of speakers will be promoted early in the new year once the abstracts have been reviewed.

The main registration portal for the Congress, which doubles as the facility for booking satellite activities such as the tours programme, is now up and running. The deadline for early bird registrations is **15 March 2022**, and we would encourage anyone interested in attending to visit www.22wcss.org.uk for details. We are also now starting to release regular updates and information through our social media channels. If you would like to keep up to date with the latest information from the Congress, make sure to follow us on Twitter @worldsoils2022 and share our updates with your own network.

Volunteering

As the programme for the WCSS22 continues to emerge, we are looking for dedicated, enthusiastic individuals who are willing to spare some time both at the Congress itself and to support the wider programme. WCSS22 puts people at the heart of what they are hoping to achieve, and volunteers will form a core part of this. There will be a variety of roles on offer, both supporting the core programme and additional activities such as the soil judging. No two roles, nor two days will be the same, in what will be a dynamic and exciting event. In return we are offering a range of benefits, including access to the Congress programme. We welcome applications from all and if you have any specific requirements to allow you to volunteer at the event, please state this in your application. To apply please submit your CV and a short covering letter to wcss22@soils.org.uk.

Fringe Events

Some sponsors and partners for WCSS22 have now been confirmed; meaning we are starting to look towards how to make the most out of these relationships, and to how we may collaborate with other like-minded organisations. The shape these relationships may take will vary dependant on the objectives of our partners, as well as our own and those of the IUSS, but we are encouraging conversations to work out where these opportunities may lie.

Fringe events are important for making sure there is diverse range of voices at our Congress, beside the core programming. If your organisations is interested in hosting a Fringe event at the Congress, please review the application form here: www.22wcss.org/conference/fringe-events. If you would like to have an informal conversation about potential opportunities prior to applying, please contact wcss22@soils.org.uk.

Soil Judging

Details for the accommodation, meal plan, and prices for the soil judging competition have now been confirmed. The hotly contested competition will be based at the stunning University of Stirling campus in central Scotland, with accommodation and catering provided on site and included in the cost of the ticket. With education and training delivered by experts in the field, this is not an experience to miss!

Bruce Lascelles, President and Chair of the WCSS Working Group

In early 2022, we will be releasing details of how Early Careers members can be involved in the UK team! Keep an eye on your emails for further information.

For those based outside the UK, the ticket price for a team of four is £3,500 and tickets for additional participants, such as coaches, can be purchased for £875. You can find out more details of the competition here: www.22wcss.org/additional-activities/soil-judging or contact us with queries, or to apply, on wcss22@soils.org.uk.

OUR LIVING SOIL

The arts and culture aspect of the World Congress, Our Living Soil, has taken a great leap forward with the confirmation of funding for the workshops being hosted by our Glasgow partner Propagate. The funding from the Heritage Lottery Fund means that community workshops in Glasgow have the green light, and we can begin planning in earnest. Connecting with local communities is a key part of the Congress and we are delighted the future of this project is secure!

Arts will form a major part of our activities during the Congress with exhibitions expected from the Scottish Potters' Association and the Barn Gallery.

We are also discussing hosting activities at the Glasgow Science Museum during the Congress, to provide families on their summer break with the opportunity to learn more about soil. This is a fantastic opportunity for those interested in science education to volunteer!

For more information about what is happening, and to keep up to date with news, have a look at the OLS website at www.ourlivingsoil.art.

Tours

Booking for all tours is now open on the WCSS22 website. Whether you are interested in exploring the many varied soil types found in Britain, or in getting out and about in Glasgow, there is something of interest for everybody.

www.22wcss.org

Facebook: @WCSS2022 www.facebook.com/WCSS2022 Twitter: @WorldSoils2022

The Society Attends COP 26:

The Biggest Climate Change Conference of Our Time

For the first two weeks in November 2021, Society President *Bruce Lascelles*, Council Member *Mark Nason* and Executive Officer *Sarah Garry* attended COP26 negotiations in Glasgow, on behalf of the Society.

The Society received Observer Status to attend COP26, meaning that we were able to access the 'blue zone', the area of the conference for governments and heads of state. As an Observer Organisation, along with 2,500 others, we are able to attend to observe official meetings and some negotiations and hold leaders to account.

During the course of COP26, our provisional attendance was altered to provide us with permanent Observer Status, allowing us to attend and input into all future UN Climate Change Conferences (COP's) as a Non-Governmental Organisation (NGO).

During COP 26 and into the future, our key asks for international governments are to prevent, halt and reverse the degradation of soils by:

- protecting and enhancing existing carbon stores in permanent grasslands, moorlands, wetlands and woodlands
- supporting the adoption of regenerative and sustainable soil management practices to increase soil carbon sequestration and thus improve soil health and resilience and the provision of financial incentives for these schemes
- supporting and funding soil research and its dissemination
- supporting global recognition and accreditation of soil scientists
- ensuring global reinforcement of soil regulation.

In return, we believe the Society's role continues to be in striving to secure the future of soils by promoting the critical importance of soils in delivering the UN Sustainable Development Goals and supplying knowledge, through our science, to support efforts to halt and repair soil degradation.

COP Outcomes

During our two weeks at COP, we:

- promoted our new *Science Note: Soil Carbon*
- supported IUSS' position paper on the interlinkages between soil and climate change
- participated in the SHE Changes Climate panel on Gender day
- attended the Macaulay Lecture with keynote speakers Christiana Figueres and Nicola Sturgeon
- developed new relationships with a host of stakeholders including the Landscape Institute, and
- outlined key activities at COP26 which will affect our members in a series of blogs, available on our website.

Governments are discussing annual reporting of climate pledges, which if passed will make every annual COP conference an important milestone for the review of climate change: https://www.bbc.co.uk/news/world-59231477.

We will continue to make a positive difference in the sustainable management and long-term security of soils that is critical to solving the environmental and societal challenges we face today and will use our new NGO status to promote the importance of soil in climate change mitigation to national and international governments.

Over the next few months, the Society Council will consider the outcomes achieved by attending COP26 and consider what, if any, approach we will take to COP27.

UN CLIMATE CHANGE CONFERENCE UK 2021

IN PARTNERSHIP WITH ITALY

We will continue to make a positive difference in the sustainable management and long-term security of soils that is critical to solving the environmental and societal challenges we face today and will use our new NGO status to promote the importance of soil in climate change mitigation to national and international governments.

Details of the next UNFCCC COP27 are still to be announced and it is expected to take place in November 2022 in Egypt.

Annual Conference

Soil Health: From Principles to Practice

Over 100 delegates joined us online for the Annual Conference on Tuesday 7 September. The Society's flagship event, this year on Soil Health, saw speakers Professor Jim Harris, Elizabeth Stockdale, Professor Dr. Matthias Rillig, Dr Felicity Crotty and Dr Rattan Lal, as well as sponsor Arcadis, outline their research on soil health.

We received our best ever event feedback with 97% of survey respondents rating the content as good or excellent and 97% also rated the speakers as good or excellent! A very big thank you to our speakers and all those who attended on the day.

A New Look at Soil Health

By Professor Jim Harris

Soil health is a phrase which was first used in print in the early 20th Century but was widely adopted by the scientific community in the 1990's as a portmanteau term to capture and explain the effects of differing land use and management approaches which were either beneficial or degradative to a number of soil characteristics. It has proved a powerful tool in conveying to a lay audience, and is found in National and International fora, programmes, agreements and long-term plans. However, many public bodies turned to the scientific community which coined the term with calls for the measurement of "soil health" – preferably as single number for ease of use and cost of implementation of monitoring.

Professor Jim Harris discussed how we need to move from solely measuring characteristics directly, to measures of soil system organisation which are dependent on the biology shaped by physico-chemical factors and their interactions and interdependencies, capturing complexity, function and emergent properties, and ask the question *"are soils really a system"*?

Developing scorecards for soil health with farmers - promoting understanding and discussion of soil function

By Elizabeth Stockdale

Farmers and growers have often not waited for soil science but have taken the initiative to understand the health of their own soils and to develop on-farm approaches to optimise soil biology and health. Within a five-year cross-sector programme of research and knowledge exchange (AHDB and BBRO, Soil Biology and Soil Health Partnership, 2017-2021), Elizabeth and her team worked with farmers and growers to maintain and improve the productivity of UK agricultural and horticultural systems through better understanding of soil biology and soil health.

In her presentation, Elizabeth discussed the steps taken, and challenges faced, in the development and testing of a rotational soil health scorecard for routine use on farm. A logical sieve approach was used at first to reduce the list of 45 potential indicators to 8 (pH, routine nutrients (P, K, Mg), organic matter, microbial activity, nematodes/ earthworms, visual assessment of soil structure (VESS)) for evaluation during the programme. Stakeholders were involved to develop a 'traffic light' giving a visual overview of the status of each indicator by drawing on existing knowledge to delineate the categories. Soil health monitoring from existing medium- and long-term trials and on-farm was used in parallel to validate and optimise the scorecard and to evaluate the overall approach.

How multiple factors of global change affect soil processes and biodiversity

By Professor Dr. Matthias Rillig

Soils are crucial for understanding effects of factors of global change. Global environmental change is inherently a multi-factor phenomenon including a wide range of very different stressors, yet the

Professor Jim Harris

Elizabeth Stockdale

Professor Dr. Matthias Rillig

Dr Felicity Crotty

Panel Discussion

Our first four speakers took part in a comprehensive and fascinating panel discussion, expertly chaired by Dr Daniel Evans. Catch up on this and all of our speakers' presentations via our YouTube channel: www.youtube.com/watch?v=xxqx1iLTv0I&list=PL1MnnrWVUv1n0hQKuT54_7PJZEZSwMyE1.

simultaneous impact of more than two such drivers is rarely studied in experiments. Professor Rillig's experiments showed that the number of factors/ stressors acting on soils is an important aspect to consider, highlighting that it is crucial to limit the impact of an ever-increasing number of stressors on soils.

Using soil biology to assess soil health

By Dr Felicity Crotty

Soil biodiversity and abundance can act as an indicator of soil health, with a functioning biodiverse soil food web exemplifying a healthy soil which is able to deliver ecosystem services. Soil quality and soil health have been used frequently and interchangeably within the scientific literature, but only something alive can be considered healthy, thereby we are already (unconsciously) acknowledging the importance of soil biology when we talk about soil health. In agricultural practice, earthworms are often used as the emblem of soil health. They are ecosystem engineers, having an impact on the whole soil environment through bioturbation and mixing of plant litter and the cycling of nutrients. Earthworm numbers can decline through poor agricultural management. Therefore, assessing earthworm numbers and how they change with practice is an important measure of soil health.

Felicity's presentation discussed recent projects that have monitored soil biology and how fauna are impacted by changing agricultural practices.

Dr Rattan Lal

President's Lecture: Returning Land to Nature by Producing Just Enough from Less

By Dr Rattan Lal

From 1961 to 2020, the world population increased 2.5 times from 3.2 to 7.8 billion but global cereal production increased 3.3 times from 880 Mt to 3 Bt. Simultaneously, the N fertilizer use increased by a factor 9.2, P by 5, K by 4.2 and irrigated land by 2.4. Of the 5 b ha agricultural land, 3.5 b ha is for raising animals, 70% of water withdrawn is for irrigation, and 30 - 35% of greenhouse gas emissions are from food production systems. Degradation of one-third of agricultural soils has increased the yield gap. While 30 - 50% of food produced is wasted, 700 million people are under-nourished and 2 billion are malnourished. Thus, food production and consumption systems must be designed to protect, restore, manage, and return some land to nature. The strategy is to restore soil health, improve soil organic matter, reduce food waste, adopt prudent consumption systems, produce just enough of nutrition-sensitive food, and return some land to nature.

From the delegates:

"Really excellent range of speakers, covering really useful and informative aspects of soil health. Thank you very much indeed."

"Lal and Harris are always inspirational - and to have both in one conference - fantastic. Thank you!"

"Great speakers, topical issues covered, good quality of sound and visuals, brilliant timekeeping and plenty of time for questions. Enjoyed it."

"Great range of speakers, very thought-provoking and impactful. Thank you!"

"This was my first conference and AGM, and I can say It has been a wonderful experience and has given me a little bit of an insight into my PhD project idea."

In Case You Missed It

Contributions and future priorities for soil science: Comparing perspectives from scientists and stakeholders

Available as an Early View and written by Cimpoiasu, Dowdeswell-Downey, Evans, McCloskey, Rose & Sayer, the special issue article explains that soil functioning is critical for the operations and performance of multiple industries, businesses and municipalities and that soil scientists need to actively engage with these bodies to orientate research goals towards stakeholder needs. Using an online questionnaire distributed to 192 organisations, the authors assessed whether the current and future research priorities of soil science match the needs of four major industrial and environmental sectors: agriculture, ecosystem services and natural resources, waste management, and water management. They conclude that soil science may hold unexplored potential in several industrial and environmental sectors and call for improved research communication and greater stakeholder involvement to shape the future soils research agenda and ensure the sustainable use of soils across multiple areas of society.

https://onlinelibrary.wiley.com/doi/10.1111/ejss.13162

Greater, but not necessarily better: The influence of biochar on soil hydraulic properties

Published in EJSS 72:5, Rabbi, Minasny, Salami, McBratney & Young perform a meta-analysis to capture the variations in change in hydraulic properties of arable soils after application of different rates of biochar. They acknowledge that biochar is recommended as a soil amendment for its positive influence on soil hydrological properties, which results in improved soil fertility and crop yield. Although there has been a large amount of research in the last decade conducted in field and laboratory conditions on the effect of biochar on the hydraulic properties of soil, reported results in the literature are substantially inconsistent. Their meta-analysis revealed that high biochar rates (>50 t ha−1) compared to low rates (<20 t ha−1) significantly improved dry bulk density in sandy and clay soils in field and laboratory experiments but field capacity only improved in laboratory experiments on sandy soils. The authors discuss possible reasons for this and conclude that the current evidence does not support the notion that the application of biochar improves soils' available water capacity.

https://onlinelibrary.wiley.com/doi/10.1111/ejss.13105

Soil phosphorus over a period of agricultural change in Scotland

Tweedie, Haygarth, Edwards, Lilly, Baggaley & Stutter tested the hypothesis that P forms and functions in agricultural soils have changed over a period of 50 to 70 years of agricultural change using topsoils from 35 agricultural sites in North East (NE) Scotland compared at 'original' and 'resampled' timepoints. Yield increases by use of phosphorus (P) fertiliser has been a defining aspect of last century's agriculture but in many countries P inputs are now being regulated to avoid ecological damage and improve agricultural sustainability. The authors' study represents a long and important period of changing drivers acting on soil P change with potential to improve understanding future soil P trajectories. The value of archived historical soils samples is shown, if care in interpretation of storage implications is made.

https://onlinelibrary.wiley.com/doi/10.1111/ejss.13179

Sewage sludge biochar increases nitrogen fertilizer recovery: Evidence from a 15N tracer field study

In the recently published SUM 37:4, de Figueiredo, Wickert, Neves, Coser & Paz-Ferreiro consider that sewage sludge-derived biochar (SSBC) could improve nitrogen (N) use efficiency (NUE) and reduce the use of mineral N fertilizers in agriculture but that information on the residual effect (after stopping amendment) of SSBC on NUE is scarce, but necessary, to evaluate how often biochar should be applied to agricultural crops. In their study, the residual effect of SSBC produced at different temperatures on NUE of corn, by using the 15N isotope tracer, was investigated. Results of the current study indicate that SSBC is able to improve the N use efficiency, even two years after amendment, and consequently, it may reduce the use of mineral fertilizers in agriculture.

https://onlinelibrary.wiley.com/doi/10.1111/sum.12672

Does mixed vs separate sheep and cattle grazing reduce soil compaction?

Published in SUM 37:4, Jordan explains that soil compacted by grazing livestock results in an increase in overland flow following rainfall and is thought to be one of the key factors contributing to increased severity of UK winter flooding in recent years. Practical farm-scale changes in livestock management that lead to improvements in water flow regulation therefore need to be identified. The author's pilot study aimed to assess the impact of (i) changing stocking composition, and (ii) temporary grazing exclusions, on soil natural capital quality on a sheep and beef cattle farm in Northumberland, England. The study indicates that rapid improvements in soil physical properties can be achieved through realistic changes to livestock management and concludes that if this finding can be confirmed over multiple grazing seasons, this potentially offers a straightforward means to enhance soil health on grazed land in the UK, improving delivery of water flow regulation and other ecosystem services.

https://onlinelibrary.wiley.com/doi/10.1111/sum.12659

The effect of field application of food-based anaerobic digestate on earthworm populations

In their article featured in SUM 37:3, Rollett, Bhogal, Scullion, Nicholson, Taylor & Williams acknowledge that there has been limited work on the effects of digestate applications on earthworm populations with most focus on the short-term effects of digestate from manure or crop-based feedstocks, not from food wastes. To address this gap in current knowledge, the objective of their study was to assess the impact of repeated food-based digestate applications on earthworm populations/biomass in both the short term (c. 6 months after digestate application) and longer term (2 years later) in comparison with other commonly used inputs (manufactured nitrogen-N fertilizer, compost and livestock manures). This multi-site field experiment has shown that the application of food-based digestate at application rates above current good practice can have a short-term, negative impact on earthworm numbers under certain conditions.

https://onlinelibrary.wiley.com/doi/10.1111/sum.12615

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"Science and agriculture: promoting beneficial symbiosis"

Written by Dr Hannah Bowley

What is the point of research? Hopefully to find out something new, then disseminate that information to improve understanding and capability in that (research!) field. Soil science is often practically orientated, but information is not always shared effectively with communities who can best apply the knowledge (e.g. farmers); or the data provided (e.g. in journal articles) can be insufficient for future applications. A recent paper written by a soil chemist, an agricultural consultant and a public health specialist explores how we can more effectively plan and communicate our research by considering collaboration with end-users. The focus is on soil science in UK agriculture, with practical examples and ideas.

https://link.springer.com/article/10.1007/s10653-020-00608-0

Photo credit: Philip Wright

Sandy loam showing the benefit of gentle loosening to alleviate compaction: not all comparisons have to be 'all or nothing'

Online Only

From January 2022, the European Journal of Soil Science (EJSS) and Soil Use and Management (SUM) will be moving to online only formats.

Led by our Environmental Policy, and with over 13% of our members already accessing one or both journals online, our Publications Committee agreed to cease printing hard-copy journals to provide a more sustainable output which will provide members with quicker, easier access to the latest articles.

UK Members who would like to continue accessing hard-copy journals can receive both EJSS and SUM at an 83% discount on the usual price for all 2022 issues. To order your print copies of the journals or to request a price for non-UK delivery, visit the Sheridan webstore;

www.ondemand.sheridan.com/pages/wiley-home.

ECR Special Virtual Issue

Following on from the Zoom into Soil webinar held in June which celebrated the work of Early Career Researchers (ECRs) in Soil Science, we are delighted to announce that a special virtual issue has been published in the European Journal of Soil Science.

Early Career Researchers are the present and the future of soil science, but often find themselves "trapped" between conventions and preconceived notions on the one hand, and the expectation of excellence, novelty, and innovation on the other. This makes for somewhat of a precarious position as ECRs attempt to establish and propel their careers. Too often, the space to develop new ideas is hindered by the hypercompetitive environment that characterises scientific research. For soil science to have a sustainable societal impact, we need to nurture ECRs, remove barriers and develop supportive networks to boost creativity. This Virtual Issue aims to spotlight the work of early career researchers from a myriad of sub-disciplines within soil science and empower them as the next generation of soil scientists.

https://onlinelibrary.wiley.com/journal/13652389

Zoom into Soil series

Zoom into Soil: Soil Compaction

Offering a brief insight into the broad topic of soil compaction, July's Zoom into Soil webinar explored some of the physical processes underpinning soil compaction, its management, problem prevention and remediation. Presenters Dr Lynda Deeks, of Cranfield University, and Dr Bruce Lascelles, President of BSSS and UK Director for Land Management at Arcadis, touched on topics relevant to many professional fields, but primarily focused on compaction management for agriculture and construction.

Dr Deeks opened her presentation by defining the terminology for talking about compaction, making the distinction between densification and consolidation, after which she progressed into describing the mechanical processes underpinning soil structure. Consolidation is often considered separately to compaction within professional soil circles. For Lynda's interpretation, they were combined to better recognise not simply compaction from pressure, but also the impacts of the behaviour of water within the soil profile. This approach illustrated why soil type impacts behaviour under certain conditions, a point from which Lynda navigated the audience to the conclusion that dependant on situation compaction may be both beneficial, or detrimental, to its intended anthropical purpose.


Dr Lynda Deeks


Dr Bruce Lascelles

Following on from this scientific exploration of the topic, Dr Lascelles delved into the implications of soil compaction for the construction industry. Bruce began by detailing how the early management of soils is key to preventing issues and that it should be accounted for in the planning stages, as per guidance from both Defra and BSSS itself. In construction, controlling soil compaction to utilise the mechanical characteristics of a particular material may be necessary for achieving project aims, one example given being to increase soil strength under structures such as roads. Conversely, Bruce also shared an example from a project in Wales where compaction was carefully controlled and minimised, to allow for the successful relocation of ecologically valuable grassland. When asked, Bruce highlighted the development of reduced-pressure machinery and other sympathetic practices, as used in the Welsh case, as results of a step change in attitudes within the construction industry, but a need for further guidance was outlined.

Both Lynda and Bruce put forward methods for managing soil compaction and remediating where necessary. Methods such as mechanical intervention, e.g. tilling and removing soil layers, and bioengineering, e.g. cover crops and fallow periods, were discussed. Soil compaction is a wide-ranging topic and the presenters are to be commended for explaining the mechanics, outlining the management implications, detailing prevention methods, and providing scientific and practical solutions within the time span of the webinar: certainly one worth a watch!

www.soils.org.uk/videos/zoom-into-soil-soil-compaction-2

All of our past Zoom into Soil webinars are available on our YouTube channel: **www.youtube.com/user/BritishSocietyofSoil**

For details of upcoming webinars, head over to our events calendar at **www.soils.org.uk/events.**

BSSS/IES Join Webinar:

The role of EIAs in Promoting Healthy Soils

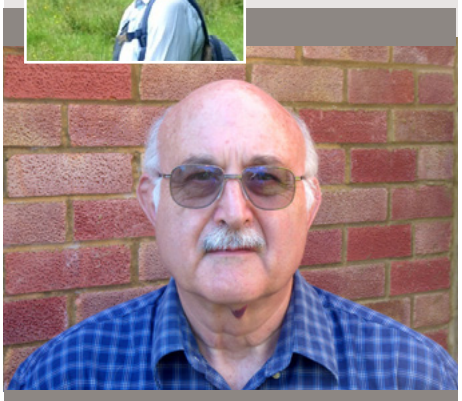
Held in collaboration with the Institute of Environmental Sciences, the virtual panel discussion explored how Environmental Impact Assessments (EIAs) can promote and support soil health.

There is increasing recognition of the vital role of healthy soils in promoting healthy ecosystems and biodiversity. Soils provide myriad ecosystem services; healthy soil is a fundamental component of producing the food we eat, supporting nutrient cycling, sequestering carbon, regulating the water cycle etc. and is therefore essential to sustaining plant and animal life. The impact of new developments on soil quality, in terms of land use changes and soil displacement, must be determined and mitigated against. Soil health must, therefore, be incorporated into EIAs in an effective way.

Dr Eleanor Reed and Chris Stapleton explored:

- How are soils currently covered by EIAs?
- The importance of healthy soils and why they should be included in EIAs
- How can we support professionals to incorporate soil health into environmental statements?

https://soils.org.uk/videos/eias/


Chris Stapleton (above) and Dr Ealeanor Reed (inset)

Zoom into Soil: Our Living Soil

Jude Allen and Isla Robertson, the team behind Soil Voices (www.ourlivingsoil.art/introducing-soil-voices) presented their exciting oral history and audio drama projects focusing on soil! It was an opportunity to hear more about the 2022 World Congress of Soil Science's (WCSS) art/science programme which links two major international conferences, COP26 and WCSS, and hopes to inspire a deeper public understanding of the importance of soils. The event was open to anyone with an interest in soil and welcomed a slightly different theme to usual.

Jude is currently working on an oral heritage project seeking to preserve oral history relating to soils. She is interviewing scientists, farmers, and laypeople, exploring their connection to the soil through past, and current, relationships, narratives, and recollections. Storytelling is key to engaging people with their environment and these recordings will form a basis for engaging with people for years to come. Many shorter clips are available on YouTube and on the Soil Voices global map: www.soilvoices.org/map.

Isla is producing an exciting original audio drama called 'Digging Deeper'; the thrilling story of Ella, a young girl who hears a voice from across the moors. Based around the theme of soils, Digging Deeper weaves bog bodies, modern farming conflicts, and soil stories through time together in a deeply engaging tale. The webinar provided an opportunity for delegates to hear a clip from Digging Deeper as well as hearing examples from the Soil Voices map and a clip of Drying Out, a soil play written by the students of Kings Kids Village School in Nairobi and Churston Grammar School in Devon.

Jude and Isla encouraged attendees to bring a cup of soil and a pen and paper with them as they invited us to rethink our relationship to and engagement with soil on a sensory and emotional level!

https://soils.org.uk/videos/zoom-into-soil-our-living-soil-2/

Isla Robertson (above) and Jude Allen (below)

Finding Your Soil Voice – what do you feel when you look/see/smell soil?

"Uplifted"
"Warm"
"Calm"
"Be careful"
"Soils always whisper: save me"
"Not soil, it's soul"
"Soil is life"
"It releases my stress"
"Organic, nutritious"
"Smells dusty, feels gritty and grainy"
"Random, irregular, fibrous"
"Grainy, damp, cold, sandy"
"You need me"
"Peaty"
"Remarkably clean"
"Real"
"Squelchy"
"Sounds like: a softer version of a saw through timber"
"Grounded"

BSSS Award Winners

BSSS is proud to sponsor a prize and trophy for a number of awards within academic institutions, which are presented to students based on criteria set with each one.

We are delighted to announce the following award winners for 2020-21 who have each received two years' Society membership as part of their prize.

Kennedy Nyangoni - Best Student in Soil Science at Royal Agricultural University

Bel Lovel - Undergraduate Award at Lancaster University

William Tamblyn - Undergraduate Award at Harper Adams University

Samantha Kehoe - Postgraduate Award at Harper Adams University

Jessica Flack – for achieving the highest average grade across the MSc Environmental Management and MSc Environmental Pollution 2020-2021 cohort at University of Reading

Harriett Ricketts (main image) - Most Promising Soil Scientist at Cranfield University

The Colin Stansfield Award at Myerscough College has not been awarded this year due to the pandemic.


Bel Lovel


Samantha Kehoe


Jessica Flack

Outstanding Society Contribution Award

Volunteers are essential to the running of the Society, and we could not achieve what we do without them! It is with great pleasure that we will be awarding an Outstanding Society Contribution Award during our AGM at the World Congress of Soil Science next year. The award will recognise the valuable work undertaken by all of our volunteers, whilst highlighting the outstanding contribution provided by one or more members. If you would like to nominate a member for this award, please keep an eye out on our website for the nomination form which will be available in early January.

External Events

Groundswell

Groundswell provides a forum for farmers and anyone interested in food production or the environment to learn about the theory and practical applications of Conservation Agriculture or regenerative systems, including no-till, cover crops and re-introducing livestock into the arable rotation, with a view to improving soil health.

As the first face-to-face event since the pandemic started, the Society were delighted to attend this year's Groundswell from 23 to 24 June at Lannock Manor Farm, Hertfordshire. Our stand was next to a soil pit where two-year multi-species herbal ley was growing.

A big thank you to Dick Thompson and Bob Jones who volunteered on the stand discussing the soil pit and soil map, kindly loaned by Cranfield University, and providing their expert knowledge to attendees.

Contamination & Geotech Expo

From 22 to 23 September, the Society exhibited as a main partner at the Contamination & Geotech Expo in Birmingham. Covering all aspects of land, water, and air contamination, insight and learning were high on the agenda with the seven specialised zones and a seminar programme full of expert led CPD accredited sessions, panels, and demonstrations. The show zones included Hazardous Materials, Land Remediation, Geotechnical and Geoenvironmental, Clean Air Technology, Spill Response, Wastewater, and Nuclear Decommissioning and Remediation.

Early Careers Conference

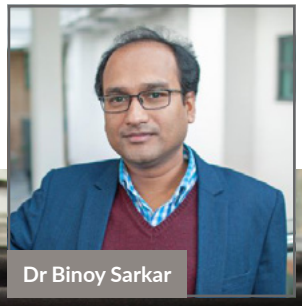
Our Early Careers Committee delivered an excellent and comprehensive programme for the Early Careers Conference, Soils: Past, Present and Future, sponsored by Arcadis, which took place from Monday 11 to Wednesday 13 October. Featuring invited speakers and key workshops as well as oral and poster presentations from Early Career members, the conference was a fantastic opportunity to learn, discuss and network!

Soils: Present

Particulate plastics in the soil-plant system: Recent research advances and future potentials

By Dr Binoy Sarkar

Particulate plastics pose a global environmental concern due to their widespread occurrence, distribution and severe ecosystem risks. As compared to aquatic systems, the fate, transformation and impact of plastic pollution are less explored in the terrestrial environment. Soil can be one of the main storage places of particulate plastics, conferring significant impacts on soil physio-chemical properties, microbial and other biological activities and plant performances. Particulate plastics can act as hot-spots and carrier of various organic and inorganic contaminants, posing direct and indirect risks to the safety of agricultural products. A few reports suggest that particulate plastics, especially nanoplastics, could directly be taken up via plant roots and/or interfere with plant essential nutrients uptake phenomena. Soil properties and various biotic and abiotic environmental factors on the other hand influence the fate and transformation of particulate plastics and their associated contaminants in the soil-plant system.



Dr Binoy Sarkar

Dr Sarkar presented an overview of current research advances and challenges in the analysis, fate, transformation and potential mitigation strategies of particulate plastics in the terrestrial environment. He identified knowledge gaps and future research prospects in this area.

Soils: Future

Creating the Earth – Fabricated Soil

By Professor Mark Fitzsimons

Soil degradation is a critical and growing global problem. Increase in the world population has added to pressure on soil, and its natural capital faces continuing decline. Within the European Union (EU), the legislative framework on waste management is provided by the EU Waste Framework Directive. The Directive sets the following waste hierarchy to be applied as a priority order in member states: prevention, preparing for reuse, recycling, other recovery and disposal. As such, disposal to landfill is the least favoured option meaning that a large amount of biodegradable waste must be diverted from landfills to other organic waste management practices. Artificial soils offer a potential route for the recycling of waste materials and their associated capital, within the terrestrial environment, and potential mixtures of large volume mineral and organic green waste have been evaluated for high (horticulture/agriculture) and low (amenity/restoration) value markets. Professor Fitzsimons' presentation assessed the feasibility of new soils composed from these materials and considered the opportunities and challenges ahead.

Writing About Soils: How to Get People's Attention When Writing About Soil

By Phoebe Weston from The Guardian

The Guardian journalist, Phoebe Weston, presented her guide on how to make people listen when writing about soil, how to get the attention of journalists and how to deal with them when you do. With ideas on how to make people care about soil, advice from colleagues and her own personal writing suggestions, Phoebe gave a fascinating insight into the world of journalism as well as important tips on writing good press releases and how to use Twitter to promote your work.

Phoebe Weston

Professor Mark Fitzsimons

Congratulations!

A very big well done and thank you to all those members that delivered an oral presentation or presented a poster over the three days!

Congratulations to Imelda Uwase who won the Spade Award for the best oral presentation and Caitlin Lewis who won the Trowel Award for the best poster presentation.


Dr Olaf Schmidt

Writing About Soils for Different Audiences

By Dr Olaf Schmidt

Dr Olaf Schmidt, Deputy Editor of the European Journal of Soil Science, presented an Editor's view of the process of writing for and getting published in a peer-reviewed journal, explored writing about soils for practitioners and the skills required by researchers to reach such an audience and increase dissemination and impact of soil research. The question and answer session at the end of Dr Schmidt's workshop also allowed delegates to gain some fantastic advice and tips on dealing with rejection of manuscripts and taking your first steps as a reviewer.


Dr Helen Simpson

Skills for Soil Scientists in Industry

By Dr Helen Simpson

In this skills workshop, Dr Helen Simpson from Wardell Armstrong gave an overview of what soil scientists at Wardell Armstrong do, the skills that are required, advice on gaining skills, and tips for tailoring a CV for industry. The question-and-answer session sparked fantastic conversation and Helen gave insight into many different areas of working in industry: from soil carbon becoming a bigger element of what Wardell Armstrong do, to the travel-to-desk ratio.

Recordings of each presentation and useful resources will be shared with members in early 2022.

Talking About Soil: Legacy Resources


Chris Snowden


Dr Ashish Malik

On 21 July, the Early Careers Committee hosted Talking About Soil, a guide to presenting research in an engaging way to academic and non-academic audiences.

Chris Snowden, a STEM Communicator and Public Engagement Professional, introduced different concepts to consider when creating an engaging experience. From picking the audience, to the importance of the language used and the power of stories and passion to get an audience to care (plus many more tips!).

Presenting soil research to an inter-disciplinary academic audience can be challenging. Dr Ashish Malik shared his experience on how to effectively communicate soil research to peers in the field and gave a behind-the-scenes insight and top tips for creating a presentation.

Talking About Soil provided delegates with an opportunity to meet their Early Career Committee, sharing their thoughts and feedback, as well as networking with other members. Two useful resources were created following this workshop and will be available for members on the website early next year.

Change to Early Career Membership

BSSS is delighted to confirm that an important update has been made to the Early Career (EC) membership category.

The EC category will now cover a member from year one of undergraduate study to five years post-qualification with no maximum duration imposed. This update has been implemented to fully support our Early Career members whilst they gain the five years professional experience needed to transition into Full membership.

With this in mind, we have created a guidance document on the categories of membership available and what is required to transition from one to another: https://soils.org.uk/wp-content/uploads/2021/11/Membership-Category-Transition.pdf.

If you are a current EC member, please provide an update to admin@soils.org.uk on your current study or career position to ensure your membership renews correctly. For those members who are now ready to move into full membership, please email your CV to nataliecoles@soils.org.uk.

ANNOUNCEMENT: Early Career Newsletter

Look out for the launch of the Early Career Newsletter in February 2022! Published every two months, the newsletter will present the latest news, job opportunities, grants and important information specifically for our Early Career members.

Career Interview

Name: Kirsty Elliott **Job Title:** Principal Soil Scientist **Organisation:** Wardell Armstrong

A day in the life of...

That depends on the day but can broadly be split into field/office.

In the field, I could be working anywhere in the UK, from rural to urban, and fieldwork will generally involve some travel and site visit to investigate soil profiles and characteristics.

Whereas in the office I will be working on data analysis, writing project reports, project management, and having client and project meetings.

How does your job fit within Soil Science?

I provide consultancy services in relation to soils for a range of clients. This includes soil resource surveys, preparation of soil management plans, environmental impact assessments or more specific tasks to meet the needs of the client.

Why is this an interesting area to work in?

I get to work in industry where policies relating to soils are put into practice. We also get to work with a range of clients across the country in a wide range of locations meaning I see a spectrum of different soils.

Why Soil Science?

I can blame my university lecturers Davey Jones and Dave Chadwick for this, they made soils such an interesting topic to study. We still have a lot to learn about the complex nature of the soil environment, every site is different and there is always something new to learn or discover.

What did you study?

After school I did an undergraduate master's in environmental science at Bangor University, followed by, after a period of work, a PhD in Soil Science at the University of Sheffield.

What has your career path been so far? How did you begin your career?

Well, I can't say I ever imagined I would be where I am now! When I left school, I chose to continue studying something I enjoyed, environmental sciences, and have kept that mentality throughout. During work and study, I tried to gain a range of experience in this sector, from volunteering with the national trust, working in wastewater treatment, doing scientific outreach and learning how to be a researcher. My career now is based on my interest of practical science application and my interest in soil.

What is the best thing about your job?

Working on a range of projects, where I get to practically implement all of the things I have learned and continue learning as policy and research develops.

What skills, abilities and personal attributes are essential to success in your job/this field?

The key skills I use most days are: field soil assessment, report writing, and up to date soils in policy knowledge. Other useful skills are multitasking and time management as we often have several jobs on the go at once with deadlines to keep track of.

What advice would you offer to young people interested in a career in soil science?

Gain as much experience as you can through work, study, and volunteering. Work out which areas interest you most, and don't be afraid to send speculative CVs or apply for jobs where you might not tick all the boxes (yet!).

Can you recommend other journals, magazines or professional associations

When I left school, I chose to continue studying something I enjoyed, environmental sciences, and have kept that mentality throughout. During work and study, I tried to gain a range of experience in this sector, from volunteering with the national trust, working in wastewater treatment, doing scientific outreach and learning how to be a researcher.

which would be helpful for professional development?

BSSS is definitely a good place to start, and they have a lot of resources for their Early Career members. Twitter is also a great place to find opportunities for free webinars, events, jobs, PhDs and other people working in similar areas. Farming Today on BBC Radio 4 has great coverage of farming issues, which often relate to soils.

If you could do it all over again, would you choose the same path for yourself? If not, what would you change?

I think so, I have enjoyed my journey to where I am now, and I am fortunate to be working in an area that I enjoy and find interesting.

Introducing the Ecological Continuity Trust

A 'Champion' for Long-term Ecological Field Experiments

ECT is a unique ecological research charity working across the UK to support long-term ecological field experiments (LTEs) and monitoring. Formed in 2008 in response to the loss of LTEs across the UK, our vision continues to be the development of a network of LTEs that involve genuine ecosystem manipulations in the real world and true replication for statistical purposes. This includes safeguarding existing high-quality experiments and data, as well as facilitating new experiments.

We aim to ensure that experimental field ecology is at the heart of evidence-based policymaking, sustainable land use, and biodiversity improvement in a time of environmental change, thereby contributing to both science and society. ECT currently maintains a national register of 36 active LTEs across 37 sites in all four nations of the UK, with a further 30-plus LTEs registered as either post-treatment recovery studies (i.e. monitoring only), inactive or closed. These cover habitats ranging from grassland to woodland to upland peat bog and freshwater catchments, and experimental treatments ranging from land management techniques to manipulations simulating the effects of changing climate.

Many of the sites on our register have been running continuously as field experiments for decades and, in a couple of cases, for over 100 years (Park Grass and Palace Leas). Several include soil science research, such as the Hillsborough LTS, Colt Park Meadows and Buxton Climate Change Impacts Laboratory experiments running for 51, 32 and 28 years respectively. They are valued for this purpose because the soils have remained largely undisturbed over decadal timescales whilst the above-ground manipulations have been maintained.

Taken alongside other LTEs in ECT's network, these experiments illustrate two general points that are vitally important for policymakers to appreciate. Firstly, there is no substitute for experimental evidence and secondly, short-term results cannot be extrapolated to long-term trends. Long-term datasets have shown that annual changes, or even apparent 'trends' of up to three years' duration can be noise in the data. In other words, short-term changes may align with, or be completely at odds with, the true long-term trend. Only when an LTE has run its course on decadal timescales do we genuinely attain an understanding of what is really going on. This has enormous implications for rational, evidence-based policymaking.

www.ecologicalcontinuitytrust.org

Written by Ben Sykes BSc(Hons) MSc MRSB, Executive Director of Ecological Continuity Trust

Corporate Membership

Earlier this year, we launched our Corporate Membership scheme and are delighted to welcome three new members to the Society: Arcadis, Ecological Continuity Trust and ADAS!

Becoming a Corporate Member of BSSS demonstrates to your staff and customers that you care about soil and are building a collaborative partnership to help safeguard our soil for the future. Join us and help make a positive difference in the sustainable management and long-term security of soils that is critical to solving the environmental and societal challenges we face today.

PACKAGE DETAILS

What is included?

- Corporate Membership Scheme certificate
- Acknowledgement, link and blog opportunities on BSSS website
- Use of *"Corporate Member of the British Society of Soil Science"* and a specifically designed logo
- Access to BSSS' two scientific journals for one nominated contact
- Members' e-newsletters
- One ¼ page advertisement in *Soil Matters* (formerly *The Auger*)
- 20% discount on additional advertising in *Soil Matters*
- Free unlimited job advertisements on the BSSS website
- Members' discount on BSSS conference and event tickets (unlimited when booked through the company)

Membership Fees (based on annual turnover)

Up to £250k	£399 +VAT
£250k – £1m	£599 +VAT
£1m – £5m	£799 +VAT
> £5m	£999 +VAT

A discount on the membership fee will be offered to charities or not-for-profit organisations.

BOLT ONS

Options	Fee
1. 10% discount on any World Congress of Soil Science 2022 sponsorship opportunities (including arts, tours and exhibition)	£300 +VAT
2. Sponsorship of an Early Career members' event	£500 +VAT

The bolt-ons are offered at a reduced fee to Corporate Members who will also be given priority for booking.

Welcome to new Corporate Members

Arcadis

Arcadis is the world's leading company delivering sustainable design, engineering, and consultancy solutions for natural and built assets with more than 27,000 people, in over 70 countries, dedicated to improving quality of life.

With sustainability at the heart of everything Arcadis do, their focus is on maximizing their impact aimed at improving quality of life. The solutions they develop address important societal challenges around resilience, places, and mobility. Leveraging data and technology, Arcadis have the capabilities and services to meet client demands driven by global trends such as urbanization, climate change, digitalization, evolving stakeholder expectations and potential unforeseeable events.

Ecological Continuity Trust

The Ecological Continuity Trust is a unique ecological research charity working across the UK to support long-term ecological field experiments (LTEs) and monitoring. Formed in 2008 in response to the loss of LTEs across the UK, their vision continues to be the development of a network of LTEs that involve genuine ecosystem manipulations in the real world and true replication for statistical purposes. This includes safeguarding existing high-quality experiments and data, as well as facilitating new experiments.

ADAS

ADAS is the leading agricultural R&D and consultancy business in the UK, with over 80 specialisms including soil science, crop physiology, crop protection, nutrition, horticulture, sustainable supply chains, ecology, economics, policy, modelling, informatics, GIS, web/software development and chemical regulatory compliance. Their team of professionally qualified soil scientists have the scientific and technical expertise to translate the results from field-based research and desk-studies into practical solutions for Government, regulators and land-based industries.

The Latest Society News

The BSSS Blog has launched! We hope that the platform for Corporate Members and key partners to promptly publish high quality soil-related content will help to educate, inspire and inform.

The first blog, *Sustainable futures over the next decade are rooted in soil science*, was written by Dr Dan Evans from Cranfield University and discusses the major progress made in soil science over the past decade, particularly around five grand challenges: climate change, food security, water security, urban development, and ecosystem biodiversity.

BSSS President Dr Bruce Lascelles, Executive Officer Sarah Garry and Council Member Mark Nason shared their experience of COP26 in:

- Farming for the Future: Climate Change and Agriculture - https://soils.org.uk/blog/farming-for-the-future-climate-change-and-agriculture-today-at-cop26
- Our Asks at COP26 - https://soils.org.uk/blog/our-asks-at-cop-26
- Restoring Scottish Peat to Combat Climate Change - https://soils.org.uk/blog/restoring-scottish-peat-to-combat-climate-change-an-update-from-cop26
- Nature and Land Use Day - https://soils.org.uk/blog/nature-and-land-use-day-an-update-from-cop26
- Gender: An Update From COP26 - https://soils.org.uk/blog/gender-an-update-from-cop26

Ben Harris, Sustainability and Climate Change Director at Arcadis, has provided insight into why COP26 is a key moment in time. With estimations that global warming will likely reach 1.5°C by 2040, he explains that COP26 could be our last chance to limit warming and take responsibility to reduce our emissions. The built environment is fundamental to this and has a critical role to play in mitigating climate change and is central to building resilience against climate extremes that are already upon us. Read his blogs *Why is COP26 such a key moment in time?* and *It's time. We must act now*: https://soils.org.uk/blog/why-is-cop26-such-a-key-moment-in-time and https://soils.org.uk/blog/its-time-we-must-act-now.

The Ecological Continuity Trust (ECT) introduces us to the opportunities for soil scientists to carry out experiments at its 37 UK sites in their blog, *Introducing ECT – A 'Champion' for Long-Term Ecological Field Experiments*. ECT maintains a national register of 36 active long-term experiments and several include soil science research, covering habitats including grassland, woodland and upland peat bog and experimental treatments including manipulations simulating the effects of changing climate. Their blog focuses on five studies which investigate the impacts of simulated climate change treatments on varying habitats.

ECT has a number of opportunities available for soil scientists to undertake research on any of its 37 UK sites. If you are interested in discussing the research opportunities available please contact nataliecoles@soils.org.uk for more information.

ECT's latest blog, *Harnessing Virtual Reality to Communicate the Science Behind LTEs*, introduces us to the ECT headsets, how they came about and how they are used to combat the challenge of bringing science conducted at a distant, remote and often inaccessible ecological field site to a wider audience.

Grants

BSSS is dedicated to promoting the study and profession of Soil Science as well as supporting and encouraging excellence within the discipline. To achieve this, we offer several grants:

Members

- **Early Career Conference Grant**
  Available to BSSS Early Career members to help fund attendance at conferences applicable to their research field. During 2022, we will be prioritising applications to attend the World Congress of Soil Science. Value of up to £500.
- **Public Engagement Grant**
  Available to BSSS members to undertake public engagement activities communicating soil to diverse audiences. Value of up to £250.
- **David S Jenkinson Fellowship Grant**
  Available to support early career postdoctoral scientists from the UK to travel and collaborate with an overseas organisation. Suitable for Society Members who are UK residents and employed. Value of up to £5,000 annually.
- **Brian Chambers Soils Fund**
  Career development funding to help early career scientists and practitioners develop skills and knowledge needed to manage soils effectively in modern farming systems, essential for the future sustainability of agriculture. Value is based on application (normally between £250–£2,500).

Non-Members

- **Innovation Grant**
  Suitable for teachers of Primary, Secondary and Higher Education Institutions to encourage development of innovative ways of incorporating soil science into lessons. Value of up to £500.
- **Field Equipment Grant**
  Suitable for Primary, Secondary and Tertiary Institutions to purchase field equipment to aid in the instruction and understanding of soil science. Value of up to £1,000.

The British Society of Soil Science Interdisciplinary Grant for Early Career Researchers and Professionals

GENEVA Eurosoil 2021

For this year's Eurosoil, which took place virtually from 23 to 27 August, the Society offered the opportunity to access €5,000 funding to support an interdisciplinary project related to the United Nations Sustainable Development Goals. The grant was open to PhD students, post-doctoral researchers without a permanent position, and non-academic early career soil professionals and participants had to be registered to attend Eurosoil 2021.

Four high-quality applications were received for the grant and following review by a panel of Eurosoil organisers, the winning project was *SDG engagement: A dirty matter* submitted by Christina van Midden, Nicolas Beriot, Michael Löbmann and Tanvi Taparia. The winners propose to develop a board game to raise awareness and communicate the challenges associated with the Sustainable Development Goals (SDGs) and demonstrate soil-based solutions to them.

The game will aim to teach players to not only understand soil multifunctionality but also utilise these complex functions to mitigate the associated challenges. They hope to highlight the strong links, feedbacks and trade-offs that exist between the SDGs and suggest collaborative and interdisciplinary solutions that preserve environmental health as well as socio-economic needs.

Congratulations to the winning team and we look forward to playing the board game!

Awarded Grants

The following grants have been awarded during 2021 and we look forward to sharing the outcomes of each project with you in due course:

- **Early Career Conference Grant** - £50.41 to Joseph Martlew to attend Eurosoil 2021
- **David S Jenkinson Fellowship** – £5,000 to Dr Daniel Evans for *Stabilizing Carbon at the Rock–Soil interface: impacts of climate and wildfire* at the University of California in September 2022
- **Public Engagement Grant** - £250 to Nim Kibbler for *Get to know your soil* at Forth Rivers Trust to develop an online repository of simple-to-do soil explorations and tests that farmers and land managers can carry out to learn more about their own soils
- **Field Equipment Grant** - £623.61 to Nicholle Bell for outdoor camera equipment to create a series of field work 'how to' videos that will cover a range of protocols from core sampling to preserving samples for RNA extraction, document field sites and sampling events for future projects and bring the field to the classroom by demonstrating key learning outcomes via field videos.

Early Career Conference Grant Update

The Early Career (EC) Conference Grant supports EC members with the costs of attending relevant national and international conferences. During 2021 and 2022, this grant will prioritise EC members attending the World Congress of Soil Science 2022 in Glasgow. Applicants who have applied to deliver either a poster or oral presentation will be considered, and awards may be approved in principle before confirmation of your presentation is received.

Deadline: 28 February 2022.

https://soils.org.uk/grants-awards

Dates for your Diary

The following 2022 dates are subject to change and will be confirmed within the regular member newsletters. Please pencil these in your diary for now and keep an eye out for any changes!

Details of all events listed can be found at:

www.soils.org.uk/events

If you would like to advertise an event on our website, please email details to **admin@soils.org.uk**

1 January
Chartered Scientist CPD submissions open

12 January
Zoom into Soil (online)

15 January
Membership renewals due

31 January
Society Board Meeting

2 February
Zoom into Soil (online)

2 March
Zoom into Soil (online)

15 March
WCS22 Early Bird Registration Deadline

17 March
Society Council Meeting

31 March
Chartered Scientist CPD submissions close

6 April
Zoom into Soil (online)

28 April
Society Board Meeting

4 May
Zoom into Soil (online)

23 July
WCSS22 Regular Registration Deadline

26 July
Soil Judging Competition and Pre-congress Tours

27 July
Soil Judging Competition and Pre-congress Tours

28 July
Soil Judging Competition and Pre-congress Tours

29 July
Soil Judging Competition and Pre-congress Tours

30 July
Soil Judging Competition and Pre-congress Tours

31 July
World Congress of Soil Science 2022 including Welcome Reception, Glasgow

1 August
World Congress of Soil Science 2022, including Early Career networking event

2 August
World Congress of Soil Science 2022 including AGM, Glasgow

3 August
World Congress of Soil Science 2022 including Gala Dinner, Glasgow

4 August
World Congress of Soil Science 2022 including Closing of the Scientific Programme

5 August
One-day and Post-congress Tours

Why become a Chartered Scientist?

Through the Science Council, the British Society of Soil Science is licensed to award Chartered Scientist (CSci) to our members. Read below to find out the benefits of becoming registered.

Transdisciplinary recognition

Becoming professionally registered through the Science Council reflects the trans and multidisciplinary nature of science, engineering and technology. Chartership as a scientist reflects the wide variety of sciences and their practice, independent of discipline. If you work across a number of sectors and disciplines of science, Chartership allows you to demonstrate your wide skill set and competence as a professional scientist.

Be the one that stands out

What can you do that no one else can?

Applying for professional registration allows you to see how far you've come in your career. The reflective nature of filling out your competence report gives perspective on the skills you use everyday, and how they are integral to your work and employer.

For example, Chartered Scientists demonstrate effective leadership, have specialist knowledge and improve the application of science and technology by scoping, planning and managing multifaceted projects. How do you do this in your everyday work?

Join a community of professionals

When you become Chartered, you are among a community of scientists representing the best professional scientists working in the UK and abroad. Becoming Chartered allows you to be recognised for your high-quality work and strong skill set in science.

www.soils.org.uk/education/chartered-scientist

Your Council and Committees

Trustees

Bruce Lascelles
President

Sacha Mooney
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Jack Hannam
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Tom Aspray
Professional Practice Committee Trustee

Anirban Sarkar
Finance Trustee

Brian Westbury
Governance Trustee

Committees

Early Careers Committee
Chair: Kirsty Elliott

Education Committee
Chair: Lois Phillips

Grants and Awards Committee
Chair: Sacha Mooney

Professional Practice Committee
Chair: Mike Palmer

Publications Committee
Chair: Sacha Mooney

World Congress of Soil Science 2022 Working Group
Chair: Bruce Lascelles

Regional Groups

Midlands Soil Discussion Group
Chair: Iain Gould

Northern Soil Network
Chair: position vacant

Scottish Soil Discussion Group
Chair: Sarah Buckingham / Nikki Baggaley (maternity cover)

South East England Regional Group (SEESOIL)
Chair: Leila Froud

South West Soils Discussion Group (SWSDG)
Chair: Lynda Deeks

Welsh Soil Discussion Group
Chair: position vacant

Council

Bruce Lascelles
Trustee and Chair

Nikki Baggaley
Scottish Soil Discussion Group Chair (maternity cover)

Sarah Buckingham
Scottish Soil Discussion Group Chair

Robert Cochrane
Ordinary Council Member

Lynda Deeks
South West Soil Discussion Group Chair

Jenni Dungait
Editor, European Journal of Soil Science

Kirsty Elliott
Early Careers Chair

Leila Froud
South East England Soil Discussion Group Chair

Sarah Garry
Executive Officer

Iain Gould
Midlands Soil Discussion Group Chair

Jack Hannam
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Deyi Hou
Editor, Soil Use and Management

Sacha Mooney
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Mark Nason
Ordinary Council Member

Mike Palmer
Professional Practice Committee Chair

Lois Phillips
Education Committee Chair

Xavier Portell-Canal
Ordinary Council Member

Vacancies

Our members are able to post unlimited, soil science related job advertisements free of charge on our website www.soils.org.uk and in *Soil Matters*.

Advertising is available for non-members at the nominal fee of £75 + VAT. For further information or to list your vacancies, please contact admin@soils.org.uk.

#WCSS22

GLASGOW22

22ND WORLD CONGRESS OF SOIL SCIENCE

31 JULY - 5 AUGUST 2022

REGISTER TODAY!

Early Bird Registration Deadline
15 March 2022

Bursary and Concession rates available

Visit www.22wcss.org for more information

BRITISH SOCIETY OF SOIL SCIENCE

About us

Promoting the study and profession of soil science

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www.soils.org.uk

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@BritishSocietyofSoil

What we do

The British Society of Soil Science (BSSS) was founded in 1947 and is an established international membership organisation and charity committed to the study of soil in its widest aspects. The society brings together those working within academia, practitioners implementing soil science in industry and all those working with, or with an interest in soils.

Research on soils and enhanced understanding and engagement with soils is essential for agricultural, landscaping, construction, remediation, conservation and archaeological projects, as well as policy direction on critical topics such as climate change.

We promote research and education, both academically and in practice, and build collaborative partnerships to help safeguard our soil for the future. This includes hosting the World Congress of Soil Science 2022 in Glasgow, where those with an interest in soil science can meet to discuss the critical global issues relating to soil.

Anyone with an interest in soil is welcome to become a member. Membership starts from £35 for Associate members, with Full membership, which allows the member to use the designation *M I Soil Sci*, for £60 per annum.

To find out more visit the BSSS website:

www.soils.org.uk

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