



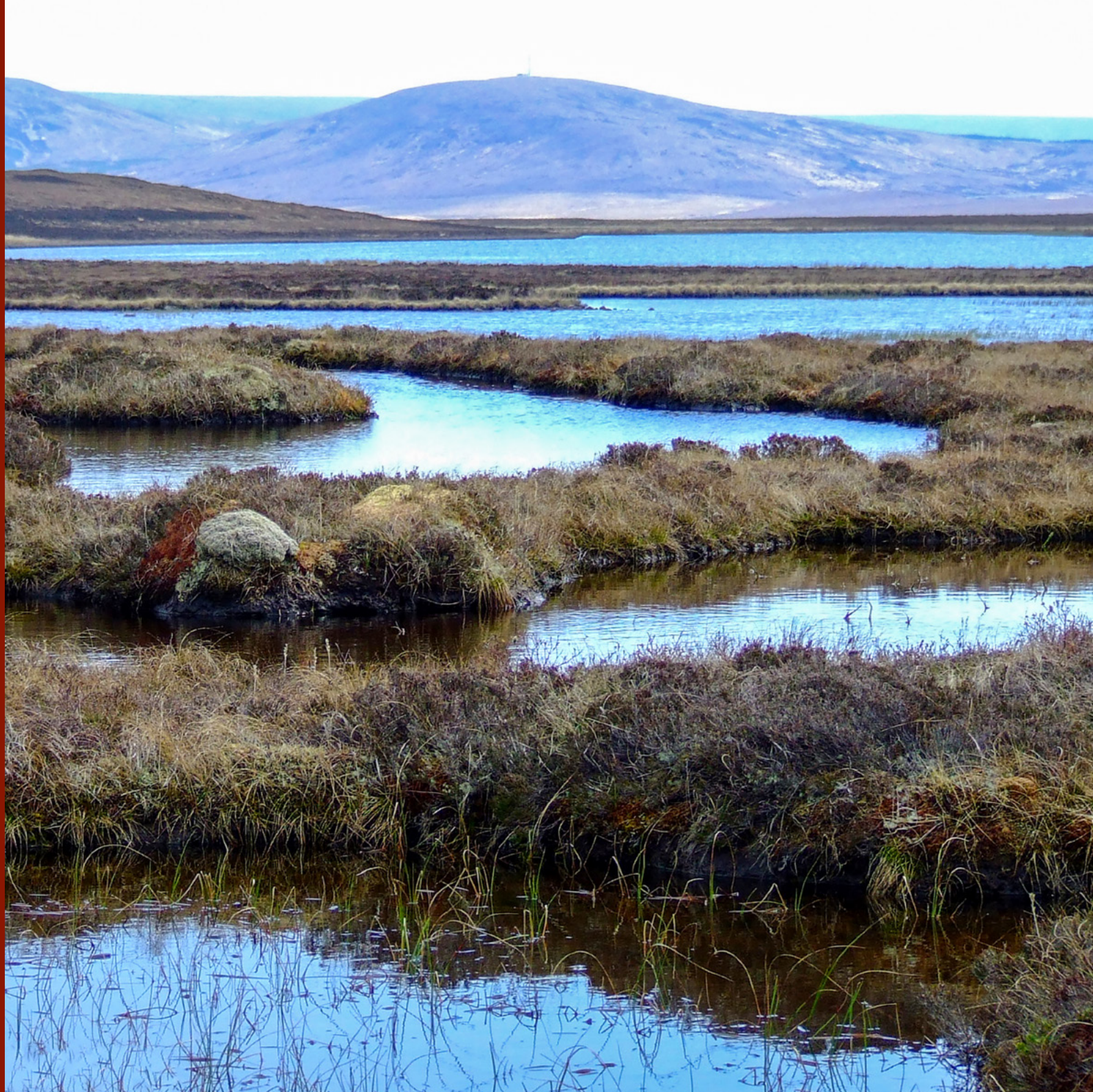
BRITISH SOCIETY
OF SOIL SCIENCE

Annual Report 2021



Contents

| | |
|--|----|
| Introduction from the Chairman..... | 3 |
| Introduction from the Executive Officer | 4 |
| Our strategy 2020 – 2025 | 5 |
| Our Year in Numbers | 6 |
| Seeking to publicise the key issues for the soil science community | 8 |
| Promoting change through knowledge exchange across all aspects of soil science | 10 |
| Hosting conferences and meetings focused on soils | 12 |
| World Congress of Soil Science..... | 14 |
| Supporting and encouraging the education of soil science..... | 16 |
| Inspiring the future generations of soil scientists | 18 |
| Ensuring high standards of professional practice for those working with soils..... | 20 |
| Leading on the social and environmental responsibilities of a contemporary society | 22 |
| About us | 24 |
| Our people | 25 |



Introduction from the Chairman

I began my welcome last year by commenting on the challenges which the pandemic had brought to the Society, and many of our members, during 2020. Although we all hoped that 2021 would bring an end to the pandemic, its continued presence has led to significant changes to the way our office team have been working and in that context, highlights how impressive our achievements have been during this last year.

Last year, I reported that we had implemented our 2020 – 2025 strategy and we continue to make significant progress against it. In late 2021, our Board met in London (and virtually) for a facilitated session to help identify the long-term vision for the Society. This work will be ongoing into 2022 but is an incredibly important step for the Society. Although we have big plans to highlight soil's importance to a wider audience, we are a small Society and need to make sure our annual activities are achievable and slowly, but surely, moving us towards our long-term goals.

During 2021, two long-standing Board members, Anna Becvar and David Hopkins, stood down from the Board. Both of whom had given six years as Society Trustees and I would like to express my sincere thanks to them for their contributions during that time.

I am however delighted to welcome Anirban Sarkar and Brian Westbury as Finance and Governance Trustee respectively. Both joined Board in late 2021 with Anirban bringing a wealth of financial investment expertise from HSBC, alongside Brian who has been a Trustee for charities, a pension scheme and Dean of a medical faculty.

Our members supported changes to our Articles of Association and Bye-Laws at the AGM in September, which were required to elect Anirban and Brian. As the Society's visibility increases, having non-member Trustees with the skills we need to help properly govern and manage the Society as a company and charity, is incredibly important.

Despite the continued turbulence in the financial market, our finances have remained healthy and our audited 2021 financial report will be available later in the year. Our conservative investing has meant that although we expect the report to show lower income from those sources than usual, we have achieved our income targets and made significant savings on expenditure mainly due to increased efficiencies in the office and a reduction in face-to-face meetings and travel.

As we enter 2022, we recognise that the challenges surrounding the pandemic will continue. As we will be hosting the World Congress of Soil Science this year, we continue to work closely with the charitable organisation set up to deliver the Congress, to make sure we offer the best possible Congress within the parameters we have. This will include delivering a hybrid congress to ensure as

much equity as possible; providing our colleagues, particularly those in the global south, who may be unable to travel due to Covid or for financial reasons, with the opportunity to attend a congress where they have been previously unable.

2021 has further enhanced our reputation as the organisation which represents both professionals and non-professionals in soil science and I am incredibly proud of our volunteers, staff and members who have helped us to achieve this. The support of all, but particularly our volunteers, continues to be inspiring.

I look forward to welcoming you to Glasgow in 2022.

Dr Bruce Lascelles

Chair of the Board of Trustees 2021 - 2022

2021 has further enhanced our reputation as the organisation which represents both professionals and non-professionals in soil science and I am incredibly proud of our volunteers, staff and members who have helped us to achieve this.



Introduction from the Executive Officer

Having undertaken a complex change programme for the Society when I started in post in 2020, 2021 was much more about delivery; focusing on organising opportunities to share the latest soil knowledge and information with members and stakeholders. As you will see from 'Our Year in Numbers' (page 6 - 7), this has included organising 26.5 training hours for members, sending 27 email updates, responding to five consultations and representing members as a Non-Governmental Organisation at COP 26.

For the first time in 2021, we also began to evaluate the impact of our activities, to help our Board and Council understand how to best meet our mission to halt and repair soil degradation through knowledge-sharing. We asked attendees at each of our training sessions whether they would use the knowledge learnt in their future practice. Over the course of all of our activities, the average was 59%.

Using this information, we now know that the improved and tailored activities we began offering in 2021 are having a better than anticipated impact, proving their value for our members and beneficiaries. As a result of 2021's increased activity, the Society's visibility has improved and we surpassed 850 members; a 10% increase on our membership numbers this time last year and our highest ever number of members.

As the Society grew, we were also able to welcome a third member to our small team. Christine Berrill joined the Society as Project Coordinator, specifically to support the delivery of the World Congress of Soil Science and related outreach activities.

We continue to strive for excellence however and in late 2021, shared the results of our member survey. We have chosen to share some of the negative, as well as positive comments with members; demonstrating that we have heard your comments and detailing how we plan to address them.

As the pandemic has continued into 2021, our Council, Board and committees continued to meet online, with the exception of one face-to-face Board meeting in September. As we enter 2022, the

pandemic has permanently cemented a new way of working into our operations. Our Zoom into Soil sessions have provided us with an audience which would not have been accessible two years ago, and as a result has increased our global reach, the number of quality activities we are able to offer and reduced our carbon footprint.

2022 will see the reintroduction of travel into our diaries as we hope many of you join us for the World Congress of Soil Science in Glasgow from 31 July – 5 August. We will be paying particular attention to the environmental impact of the Congress and will be working closely with our suppliers to limit this impact, communicate our activities to delegates and encourage them to do the same.

I hope that the 2021 Annual Report clearly demonstrates the impact which our activities are having and the progress we are making against our strategic goals. As I end my welcome, I would like to extend a well-deserved thank you to our staff and volunteers for their hard work. Without them, we simply would not have achieved the amount we did during 2021.

As always, we continue to welcome your feedback on the work we are doing, where we can improve and how we can continue to share our soil science knowledge with both the scientific and non-scientific communities.

We look forward to working with you in 2022.

Sarah Garry
Executive Officer



Our Zoom into Soil sessions have provided us with an audience which would not have been accessible two years ago, and as a result has increased our global reach, the number of quality activities we are able to offer and reduced our carbon footprint.

Our strategy 2020 – 2025

Our mission alongside a seven-point, five-year strategy focuses our efforts and activities:

The British Society of Soil Science (BSSS) is the UK's leading body in the area of Soil Science with a global reach. We strive to secure the future of soils by promoting an enhanced understanding of the critical importance of soils in delivering the U.N. Sustainable Development Goals and supplying knowledge, through our science, to support efforts to halt and repair soil degradation. We aim 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. We achieve our mission through the creation, dissemination and translation of knowledge. Specifically:

- 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.

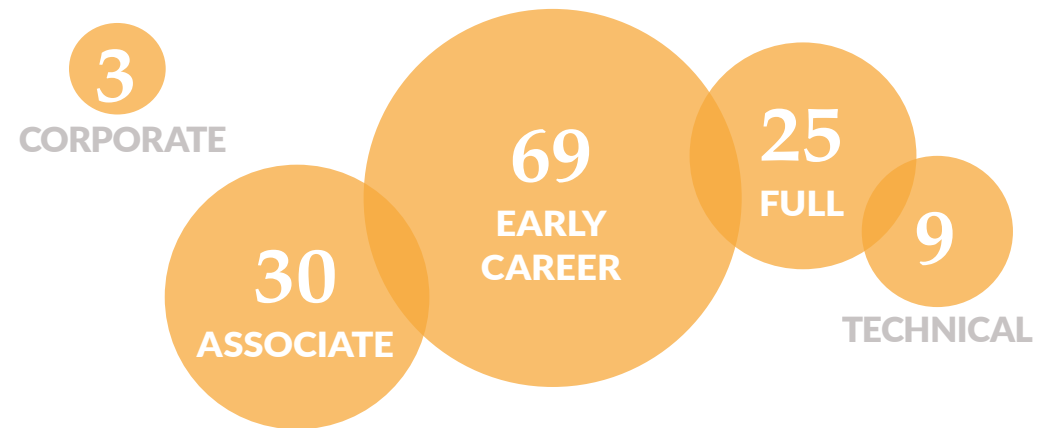
Our Council set out a number of key actions and activities to support us on our journey to achieve our strategy.



Our Year in Numbers

- » 736 people attended our seven **Zoom into Soil** webinars
- » Almost 4,000 people had watched **Zoom into Soil** webinar content online
- » 725 people had watched the **Annual Conference** content online
- » Our **#Grounded video** continued to generate interest with over 1,300 views during 2021 and nominations for a number of international awards
- » 1 new **Society Fellowship** was awarded
- » 2 new **Honorary members** – Professor Keith Goulding and Professor Margaret Oliver
- » 42 **Chartered Scientists** – compared to 47 in 2020
- » 27 **email updates** sent to members and stakeholders
- » 26.5 number of **training hours** delivered
- » 64 **news items** on our website
- » 5 **consultations** responded to
- » 1 **UN Observer Status** granted for UN Climate Change Conferences and Calls for Evidence
- » 2 editions of **Soil Matters** published
- » 49 **external soil-related events** promoted
- » A 53% **average increase** in usage across our **social media** channels, and a new Twitter account for our Early Career members

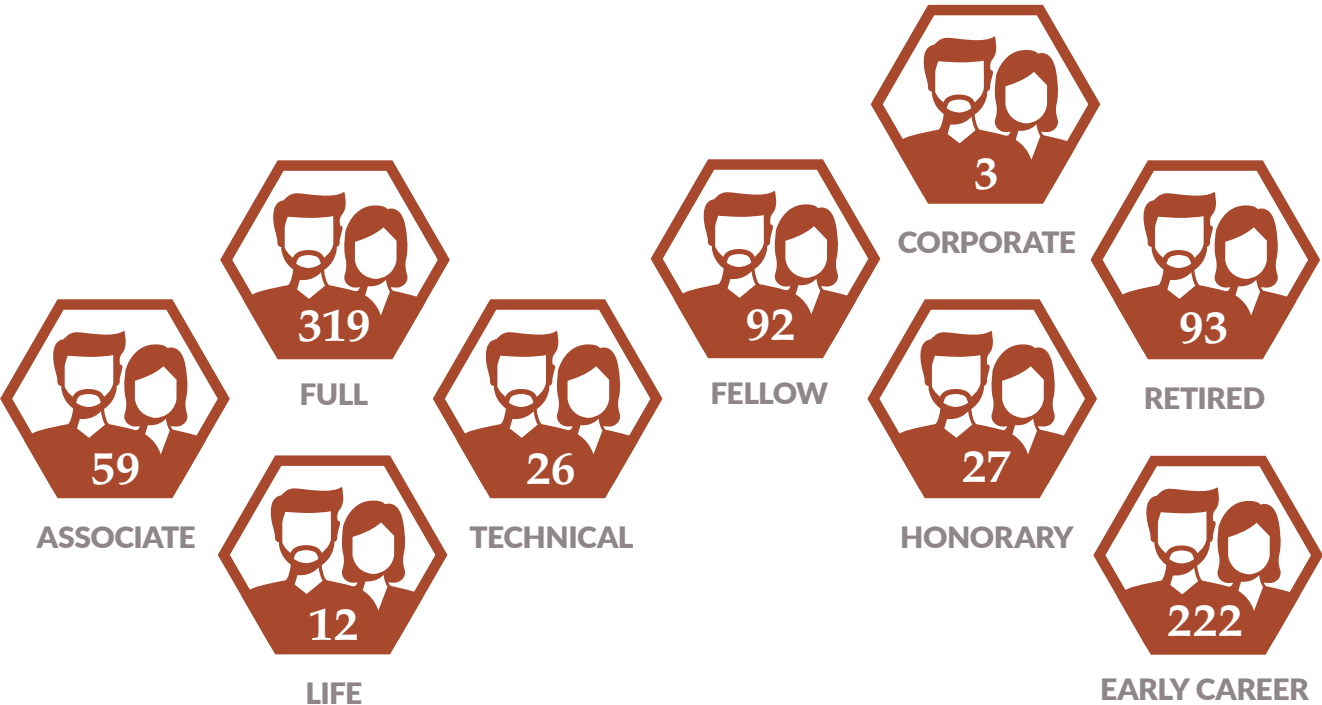
During 2021, BSSS welcomed **136 new members**: twice as many as 2020!



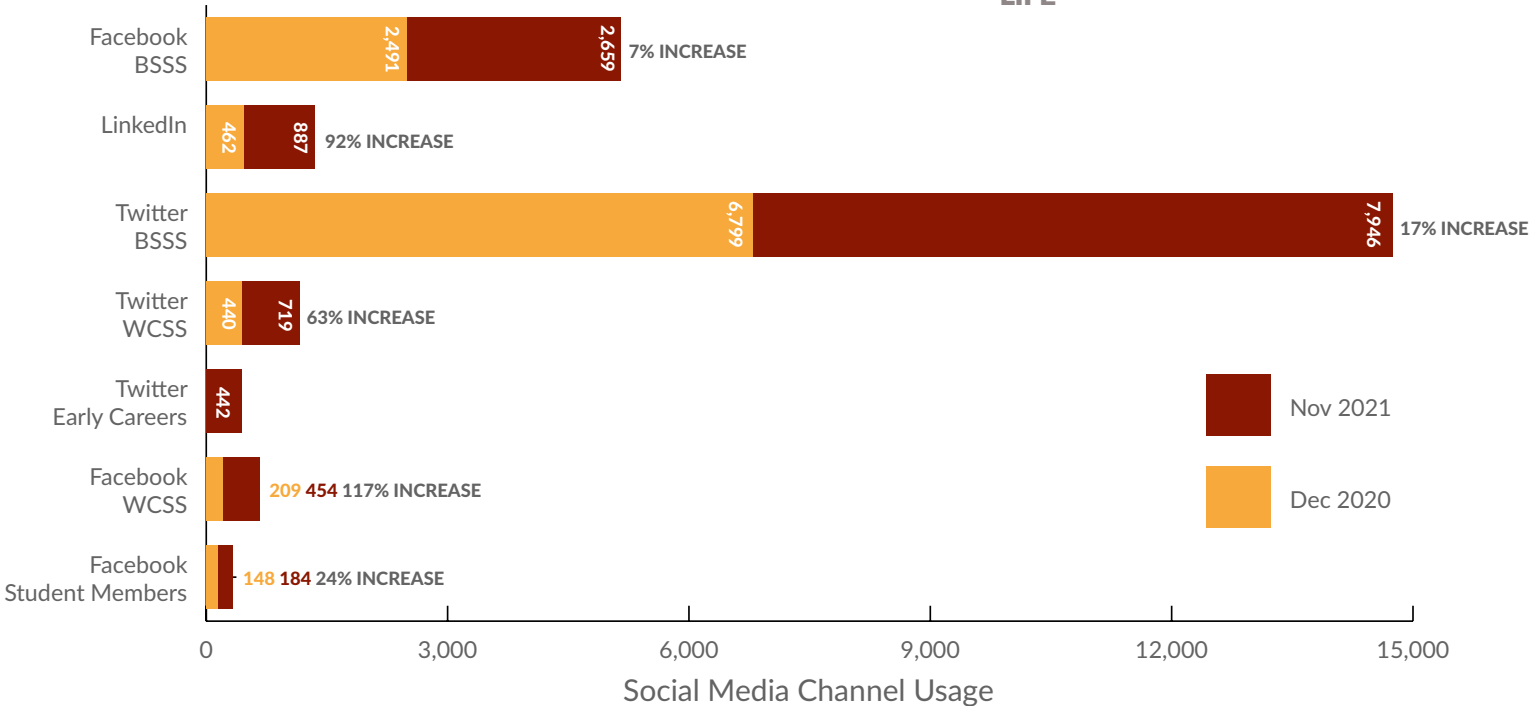
BSSS members stretch far and wide across the globe with members in 37 countries. At the end of 2021, 66.3% of our members were male, 33.1% female, 0.1% gender non-conforming and 0.1% transgender with 0.4% preferring not to say. Amongst our Early Career members, 40.9% were male, 52.3% female, 0.4% gender non-conforming and 0.4% transgender with 6% preferring not to say.

At 31 December 2021, BSSS represented **853 members**, the highest number of members in the Society's history and a **10% increase on members at the end of 2020 (776)**.

The Society also welcomed Corporate Members for the first time.



Social Media Channel Usage:



Seeking to publicise the key issues for the soil science community

Our Strategy said:

We will raise the profile of the important soil issues via our two prestigious journals (European Journal of Soil Science and Soil Use & Management), our bi-annual members' magazine (*The Auger*), our new website, an enhanced social media presence and by hosting regional, national and international conferences. We will actively engage with the media by responding quickly to enquiries, providing factsheets and policy notes ensuring we are acknowledged as the UK's leading authority on soil science.

What we set out to achieve:

- » Develop a strategy for the journals to comply with the emerging Open Access agenda
- » Ensure our journal authors are widely featured in *The Auger* and at our events
- » Ensure the impact of the grants we awarded are promoted via *The Auger*
- » Encourage corporate engagement with *The Auger* to ensure it provides all types of soil science news
- » Publish further guidance notes on topics to meet our members' needs.

Our Achievements:

Journals

- » Continued to actively monitor the open access agenda and negotiated a one-year contract extension to publish our two journals with Wiley
- » Promoted both journals across our members' email updates and *Soil Matters* publication (formerly *The Auger*)
- » As 87% of members were already receiving their journals electronically, made the decision to offer both journals online only from 2022, to limit our environmental impact
- » Delivered a number of virtual special issues including the cross-journal special, virtual issue, *STARS: Innovations in Soil Science to Address Global Grand Challenges*
- » Re-designed and renamed our members' publication *Soil Matters* (formerly *The Auger*) and issued two editions
- » Chose to participate in the free Weston Communicating Climate programme for charities, which provided communications and public speaking training to our staff team and President
- » Featured in magazines and newspapers discussing soil health including *Breathe* magazine, the OCR blog and Environmental Education magazine
- » Promoted our grant and award winners in a new web page with case studies online and in *Soil Matters*.

Guidance and Publicity

- » Produced new guidance notes: Applying for a CSCS Card (February) and Soil in Construction (March)
- » Produced our first comprehensive Science Note on Soil Carbon which sets out the academic research concerning soil carbon, which is used to define clear recommendations to governments. This clearly established our collective expertise and independence to governments, stakeholders and lay-people

Our Impact

- » The 2020 Impact Factors were 4.949 for the *European Journal of Soil Science* (3.742, 2019; a 32% increase) and 2.950 for *Soil Use and Management* (1.690, 2019; a 75% increase)
- » Our guidance and science notes webpage received over 1,500 views during 2021 with over half of those viewers visiting the Society website for the first time.

**Highlights**

- There is an urgent need to reduce atmospheric carbon dioxide (CO₂) concentrations.
- Supporting natural and agricultural systems to sequester carbon (C) can help achieve this.
- Many soils have the capacity to sequester C from the atmosphere, however the process is slow, easily-reversible and time-limited.
- The greatest and most rapid soil C gains can be achieved through land use change (e.g. conversion from arable land to grassland or woodland), but this can have implications for food production and the displacement or exporting of emissions.
- Increasing soil organic C contents through sustainable soil management (SSM) practices can improve soil health, the efficiency of food production and the delivery of multiple public goods and services.
- Where financial incentives are developed to encourage SSM practices and sequester C it is essential that funders provide ongoing support to these schemes.
- Given the uncertainties around the amount of additional C that can be sequestered in future, and the ease with which C gains can be lost, it is essential that the carbon stores in existing permanent grasslands, moorlands, peatlands, wetlands and woodlands are protected.

Introduction

Recent reports from the Intergovernmental Panel on Climate Change (IPCC) highlight how human activity is changing the climate in unprecedented and sometimes irreversible ways.

The reports make it clear that action to tackle climate change is an urgent priority. The 26th United Nations Climate Change conference (COP26) is due to take place in Glasgow in November 2021, and is seen as critical for establishing a robust path to future zero or negative emissions of greenhouse gases (GHGs) at a global scale. There is an urgent need to reduce fossil fuel emissions to near zero, while supporting natural systems to sequester and store carbon (C). Soils contain more C than in the atmosphere and vegetation combined and are therefore an essential carbon store. Under certain conditions with careful management they can act as an important carbon sink.

Increasing the amount of C stored in soil is beneficial from a climate change mitigation perspective, but how much C can be stored in this way?

This science note aims to:

- Set out the importance of C in soils, how it behaves, and the role it plays in supporting soil functions, delivering vital public goods and services, and helping societies adapt to and reduce the rate of climate change.
- Raise awareness of the main issues surrounding soil C and the actions that governments, communities and individuals can take.

Carbon sequestration

A net transfer of carbon (C) from the atmosphere to land (either into soil or vegetation).

Carbon store

A medium that stores C. Over a given period of time, the amount of C in the store may be increasing, decreasing or static.

Carbon sink

Any reservoir or medium that over a given period of time accumulates and stores more C than it loses.

Carbon source

Any reservoir or medium that over a given period of time loses more C than it accumulates.

CASE STUDY

Science Note: Soil Carbon

At the beginning of November to coincide with COP 26, we launched our first Science Note on the topic of Soil Carbon. 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:
www.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.

In 2022, we will:

- » Introduce a journals hub landing page – providing better visibility to our journals
- » Review *Soil Matters* to see whether it still meets members' needs
- » Increase our visibility on social media – increasing our reach
- » Deliver more guidance and Science Notes on high-profile topics
- » Respond to relevant UK and international consultations.

Promoting change through knowledge exchange across all aspects of soil science

Our strategy said:

We will seek to support knowledge exchange in soil science through targeted engagement with industry, policy makers, government and educators. We will promote soil science across a range of disciplines using our website, social media and newsletters, with reference to the appropriate scientific research published in our Journals. We will make the latest knowledge available to a wider community audience and provide a forum for debate and to develop new partnerships. We will also monitor government progress in developing new policies and ensure we feed into this process.

What we set out to achieve:

- » Develop further content to support the #Grounded series and introduce different aspects of soil health to the general public
- » Provide additional content on our website including educational resources and an introduction to the wide-range of careers available working with soil
- » Prepare for COP 26. We recognise the significance of the conference and the impact which any policy decisions will have for the world around us. We will work with the Science Council to demonstrate a strong, scientific community response to climate change challenges
- » Retain our membership of other professional and scientific associations which will allow us to have a strong voice in policy debate. This includes the International Union of Soil Science, Science Council, Parliamentary and Scientific Committee and the Royal Society of Biology.

Our Achievements:

- » Our #Grounded campaign was nominated for two international awards:
 - » the 2021 Short Film Prize of the 11th edition of the **International Environmental Film Festival** on the theme Actions!
 - » the **Film Bahari** (Indonesian Film Festival) awards for Short film.
- » Updated our website to provide an overview of the types of careers available in the soil science sector, added to the Frequently Asked Questions page and introduced a blog series, featuring the latest topical updates from our Council, executive and Corporate Members
- » Attended COP26 and highlighted the importance of soil in climate change mitigation (see case study)
- » Supported CIEEM, CIRIA, IEMA, Institute of Quarrying and the Society for the Environment in the production of guidance notes and communities of practice
- » Retained our membership of and contributed to a number of membership bodies and joined the Society Publishers' Coalition (SocPC) to support our journals activity

Our Impact

- » 1,300 views of our #Grounded video, highlighting the importance of soil to the environment
- » Growth in our social media channels, a 53% average increase across all channels when compared to 2020, providing us direct access to over 13,000 individuals and organisations

In 2022, we will:

- » Deliver a series of short videos to promote the importance of soil to a wider audience
- » Agree how the Society should engage with COP 27
- » Exhibit at Contamination Expo

CASE STUDY

COP 26

For the first two weeks in November 2021, Society President Bruce Lascelles, Council Member Mark Nason and Executive Officer Sarah Garry attended COP 26 negotiations in Glasgow, on behalf of the Society.

The Society received Observer Status to attend COP 26, 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 COP 26, our provisional attendance was altered to provide us with permanent Observer Status, allowing us to attend 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.

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: 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.

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



Hosting conferences and meetings focused on soils

Our strategy said:

We aim to grow participation in our regional and annual meetings. We will act to develop communication pathways with a wide range of stakeholders and use our meetings to foster debate in the latest scientific and practical issues in soil science. Working with the International Union of Soil Sciences (IUSS) and other international societies, we are committed to delivering the best possible World Congress of Soil Science in Glasgow in 2022 and ensuring this provides a comprehensive legacy for the Society and its members.

What we set out to achieve:

- » Extend the *Zoom into Soil* series with free, monthly events including sessions highlighting the latest research from our journals *European Journal of Soil Science (EJSS)* and *Soil Use and Management (SUM)*
- » Deliver virtual events from our Regional Groups, offering an opportunity to share local knowledge and network with colleagues from the same region
- » Offer a face-to-face, two-day Annual Conference and Gala Dinner in September in Glasgow (Covid restrictions dependent)
- » Send quarterly emails to our stakeholders and donors, to raise the profile of the Society and highlight our achievements over the previous quarter.

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

Our Achievements:

- » Seven free to attend *Zoom into Soil* sessions, which were also made available on our YouTube channel after the event. These included sessions on topics such as soil organic matter, compaction, an EJSS session on Early Career Researchers and a family-focused session on soils in art and culture
- » A half-day, virtual online Annual Conference on Soil Health, exclusively for members
- » Delivered virtual conference and AGMs for our Midlands Soil Discussion Group and South West Soils Discussion Group
- » Co-organised the *Managing Soils for Survival* conference alongside SCI's Agri-sciences group and CHAP
- » Delivered presentations to the Serbian Soil Science Society's Annual Conference and the Agri-Tech 4.0 Crops, Seeds and Soil Conference

- » Delivered a new quarterly stakeholder newsletter to demonstrate the achievements of the Society to a wider audience

Our Impact

- » Our virtual Annual Conference 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.
- » In our *Zoom into Soil: Soil Compaction* webinar, 67% of attendees indicated that they would use the knowledge learnt as a result of the session in their future work
- » An average of 62.5% attendees across the seven *Zoom into Soil* webinars would use their knowledge learnt in their future work
- » Over 730 people attended our seven webinars and have been watched again by almost 4,000 viewers on [YouTube](#)

CASE STUDY

Annual Conference and AGM

We were unable to host an in-person Annual Conference in 2021 due to the pandemic and the event took place virtually, allowing 120 members from the UK and internationally to attend.

The Society's flagship event, this year on Soil Health, sponsored by Arcadis, featured:

- » Professor Jim Harris, *A new look at soil health*
- » Elizabeth Stockdale, *Developing scorecards for soil health with farmers – promoting understanding and discussion of soil function*
- » Professor Dr. Matthias Rillig, *How multiple factors of global change affect soil processes and biodiversity*
- » Dr Felicity Crotty, *Using soil biology to assess soil health*
- » President's Lecture: Dr Rattan Lal, *Returning land to nature by producing just enough from less.*

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.



"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!"

In 2022, we will:

- » Host face-to-face Regional Group events and meetings
- » Continue our *Zoom into Soil* series, partnering with external organisations as relevant
- » Map our stakeholders and raise awareness of our events via these networks

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

World Congress of Soil Science

The World Congress of Soil Science 2022 (WCSS 22) is a leading international soil science conference, held every four years in different countries and attended by over 3,000 soil scientists from around the globe. The next Congress is being organised by the British Society of Soil Science on behalf of the International Union of Soil Sciences.





The Congress theme, '**Soil Science – crossing boundaries, changing society**' will focus on the link between soil and society, with sessions covering soil systems, soil processes, soil management and how we interact with and use soils around the world. There will be opportunities for specialist workshops and discussion sessions across a wide range of soil disciplines. The core programme is supported by tours and a cultural and arts programme for delegates and the wider public to explore our diverse environment and culture.

In late 2020, we established a separate charity, **the World Congress of Soil Science 2022**, with full responsibility for delivering the event and its legacy.

The Society and its Board continue to support the Congress by providing funding towards the delivery of the event and providing in-kind resources in the way of executive and volunteer support and undertaking communications activity.

Congress Achievements:

- » Over 1,900 abstracts were received by the November deadline date, far exceeding the 500 anticipated
- » Registration for the scientific congress opened in September 2021 with early bird registrations available until 15 March 2022
- » Registration launched for the pre- and post-congress and day tours, alongside bookings for the gala dinner
- » Volunteering opportunities opened for applications in autumn
- » Organisations were encouraged to apply to host their fringe events during the Congress, with successful applicants notified in early 2022
- » A coach was chosen to support the UK team in the Soil Judging Competition, an event open to international teams with the award presented at the World Congress Opening Ceremony
- » The Our Living Soil website created and the first two quarterly emails distributed to a subscription list of those interested in soil art and culture



Bruce Lascelles
President and Chair of the WCSS Working Group

In 2022, we will:

- » Host the *World Congress of Soil Science* including an arts, soil judging competition and training programme, tours and outreach programme

Supporting and encouraging the education of soil science

Our strategy said:

We will support the education of soil science across a wide range of individuals and age groups. We will provide information and resources to teachers, farmers, agronomists, growers, industry and land managers and the public via grants, outreach events, training courses and teaching materials.

What we set out to achieve:

- » Work with Awarding Bodies, including OCR, to influence plans for the proposed Natural History GCSE and with City & Guilds via its Employer and Industry Board for land-based industries
- » Continue to support LEAF with its Open Farm Sunday events, both virtually and face-to-face where possible
- » Attend external events including Groundswell and Contamination Expo to raise the profile of soil science as a discipline
- » Review our existing educational resources and update these where required.

Our Achievements:

- » Joined the verification panel of the T Level in Agriculture, Environment and Animal Care to support City & Guilds in developing a qualification which provides suitable focus on soils
- » Joined the City & Guilds Employer and Industry Board in Forestry, Arboriculture and Habitat Management
- » Continued to support OCR with the proposal for a Natural History GCSE, with our Executive Officer providing a blog to support the campaign
- » Attended Groundswell in June and Contamination Expo in September to highlight the importance of soil health to farmers and decontamination experts, respectively
- » Curated the best soil information on the web into handy resources for teachers, helping them to deliver soil-related education to primary or secondary aged children
- » Promoted the scientific work of our members across our social media channels, alongside soil-focused articles and documentaries aimed at the general public
- » Supported the Soil Voices project to deliver an online, soils oral history
- » Promoted the UN-organised World Soil Day on 5 December





17



In 2022, we will:

- » Deliver outreach events at the Glasgow Science Centre to support the World Congress of Soil Science
- » Support the development of the Natural History GCSE and T Level in Agriculture, Land Management and Production
- » Promote the Public Outreach Grant for Society members

Inspiring the future generations of soil scientists

Our strategy said:

We will continue to support the development of early career (EC) members working in soil science. We will fund a biennial conference dedicated to ECs and give them prominence at our Society Annual meeting. Through our education committee, we will support teachers and engage in community projects to inspire the next generation of soil scientists.

What we set out to achieve:

- » The delivery of an Early Careers Conference
- » Review the terms of our grants to ensure they remain accessible to members, particularly as virtual event attendance becomes the norm.

In 2022, we will:

- » Implement a bi-monthly newsletter for EC members
- » Deliver the Interdisciplinary grant at the World Congress of Soil Science
- » Deliver a networking event for Early Career practitioners and researchers at the World Congress.

Our Achievements:

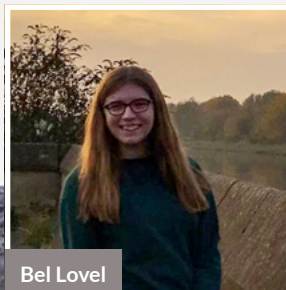
- » Delivered the three-day virtual Early Careers Conference, including oral and poster presentations and key note lectures
- » Delivered the *Talking about Soil* webinar, exclusively for Early Careers members to help them present their research in an engaging way to scientists and non-scientists
- » Updated the EC Conference grant to ensure it is accessible to all Early Career members and began to prioritise applications to those attending the World Congress of Soil Science
- » Introduced the *British Society of Soil Science Interdisciplinary Grant for Early Career Researchers and Professionals*, which was awarded at Eurosoil 2021
- » Updated our Early Careers membership category to provide all EC members with

appropriate time to gain the professional skills required to move into the full membership category, and produced a guidance note to help them make the transition.

Our Impact:

- » The Early Careers Conference which was attended by over 40 members was rated as very good or excellent by 100% of attendees, with 80% indicating that they would use the knowledge gained as part of their future practice
- » Grew our EC membership from 190 in 2020 to 219 in 2021, a 15% increase
- » Awarded the Spade Award for the best oral presentation to Imelda Uwase and the Trowel Award for the best poster presentation to Caitlin Lewis.

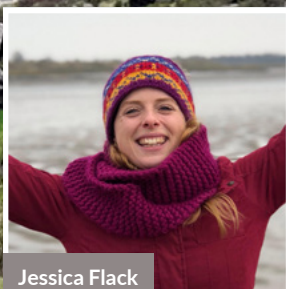
Main image:
Harriett Ricketts



Bel Lovel



Samantha Kehoe



Jessica Flack

CASE STUDY

Award Winners and Grant Recipients

We are 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. The 2020-21 award winners 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 – Most Promising Soil Scientist at Cranfield University

The Colin Stansfield Award at Myerscough College was not awarded in 2021 due to the pandemic.

Grant recipients

The following grants were awarded in 2021, supporting members and organisations to develop soil science skills. Outcomes from the projects will be shared with members in 2022.

» **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

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

– 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.

Ensuring high standards of professional practice for those working with soils

Our strategy said:

We will provide dedicated training courses such as our Working with Soils series, as well as industry focused events in support of Continued Professional Development, providing high professional standards and assisting with maintaining Chartered Scientist registration.

What we set out to achieve:

- » Continue to work with the Science Council, supporting the Employer Champion programme, highlighting the benefits of Chartered Scientist registration and working with them to review our members' CPD
- » Review how our *Working with Soils and Agricultural Land Classification* courses are delivered
- » Ensure our Equality, Diversity and Inclusion policy is embedded into our membership and renewal processes.

Our Achievements:

- » Reviewed 55 new membership applications and 1 new Science Council registration
- » Undertook an annual review of Chartered Scientist members' CPD, all of which met the standards required by the Science Council
- » Maintained a strong working relationship with the Science Council and received permission to continue delivering Chartered Scientist for a further two-year period
- » Approved one new Society Fellow
- » Committed to review in 2022, the Fellow application process, to ensure members understand the skills and experience needed to secure Fellowship status
- » Delivered our virtual *Agricultural Land Classification* course in November
- » Launched a Corporate Member category, to provide organisations with the opportunity to demonstrate their support of the Society
- » Participated in the Science Council's 2021 benchmarking exercise using Progression Framework 2.0. The self-assessment tool for Equality, Diversity and Inclusion indicated that the Society has improved its score since it was last carried out in 2017 and we are in line or ahead of other organisations when benchmarked against their results.

Our Impact:

- » Increased our membership from 776 in 2020 to 853 in 2021, a 10% increase and the Society's highest ever number of members.



CASE STUDY

Honorary Members

Using the Honorary Membership function awarded within the Society Bye-Laws, Professors Goulding and Oliver were overwhelmingly elected at the AGM. This award demonstrates the impact which the individuals have had within soil science and specifically in supporting the Society to achieve its objectives.

» 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

In 2022, we will:

- » Undertake an annual review of CPD returns
- » Support IUSS with the development of international competence standards
- » Deliver an Agricultural Land Classification virtual course.

Leading on the social and environmental responsibilities of a contemporary society

Our strategy said:

We will provide leadership in the areas concerning the socio-economic responsibilities of a modern Society. We will ensure all members have equality of opportunity, irrespective of age, race, disability, sex, religion or other protected characteristics. We will ensure our activities are planned with issues of equality, inclusion and diversity at the forefront of all decision making and that we act environmental responsible and achieve carbon neutrality where possible.

What we set out to achieve:

- » Update the Terms of Reference for our Council and all other committees
- » Ensure our approved policies are implemented into the working practices for all committees. For example, ensuring we have diverse presenter representation at our meetings, events and in our journals and that good governance is in place for both our membership and grants and awards processes
- » Update our Code of Conduct and Disciplinary Procedures
- » Work to understand and reduce the Society's carbon impact.

Our Achievements:

- » Updated Terms of Reference to reflect the need for diverse representation across all of our committees
- » Agreed two new policies: Complaints and Safeguarding. The policies outline our commitment to operate a fair and inclusive Society which is transparent in its complaint handling, and our commitment to ensure any children or vulnerable adults participating in our activities are protected from harm
- » Updated our Code of Conduct to apply to all categories of members, including Corporate Members
- » Updated our Articles of Association, to outline the process for Trustees' election and resignation and decrease the percentage of members required to make a quorum at General Meetings
- » Updated our Bye-Laws to set out the committee structures, membership process and disciplinary procedures
- » Welcomed two new Trustees from outside our membership, bringing a wealth of external governance and finance experience
- » Carried out a member survey to better understand members' needs and expectations from the Society
- » Committed to 'blind review' grant applications from 2022 onwards to limit the potential for unconscious bias.





CASE STUDY

Updating our Articles of Association and Bye-Laws

It had been over 10 years since the Society had updated its Articles of Association, which were unanimously approved for amendment by members. The changes to the Articles included reducing the number of members needed to constitute a quorum, from 10% to 5%, removal of the reference to the merger between the Institute of Professional Soil Scientists (IPSS) and the Society over ten years ago, and greater clarity over the election of Board Trustees.

The updated Bye-Laws included changes to each section, and introduced a new section on Membership, setting out the categories of membership and the rules which members are bound by. The updated Bye-Laws clarified the election process for Society Trustees and Council and the role of the Presidential team.

The updated documents support the Society's aim for a clear and transparent governance process.

In 2022, we will:

- » Agree our long-term Society vision and key performance indicators (KPIs)
- » Introduce members only pages on the Society website
- » Ensure we continue to have up to date Terms of Reference and policies
- » Award an Outstanding Volunteer Contribution Award
- » Develop quality Society and World Congress merchandise and arrange sale.

About us

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 including; managing soils sustainably, preserving its ecosystem, and mitigating against climate change.

Anyone with an interest in soil is welcome to become a member and attend our conferences and webinars, receive complimentary access to our two scientific journals, the European Journal of Soil Science and Soil Use and Management and a host of other benefits.

Join us on social media:



@BritishSoilScience
@soilunderfoot
@WCSS2022



@Soil_Science
@WorldSoils2022
@ECSoil_Sci



@britishsocietyofsoilscience



@british-society-of-soil-science



@BritishSocietyofSoil



Our People

Our Trustees

Bruce Lascelles
President 2021/22

Sacha Mooney
Past President

Jack Hannam
Incoming President

Tom Aspray
Professional Practice Committee Trustee

Anna Becvar
Finance Trustee (until November 2021)

David Hopkins
Governance Trustee (until November 2021)

Anirban Sarkar
Finance Trustee (from November 2021)

Brian Westbury
Governance Trustee (from November 2021)

Our Executive Office

Sarah Garry
Executive Officer

Christine Berrill
Project Coordinator (from May 2021)

Natalie Coles
Senior Administrative Assistant

Our Council

Bruce Lascelles
Trustee and Chair

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 Committee 2021
Chair

Leila Froud
South East England Soil
Discussion Group Chair

Sarah Garry
Executive Officer

Iain Gould
Midlands Soil Discussion Group
Chair

Jack Hannam
Trustee

Deyi Hou
Editor, Soil Use and Management

Manoj Menon
Northern Soil Network Chair

Sacha Mooney
Trustee

Mark Nason
Ordinary Council Member

Lois Phillipps
Education Committee Chair

Xavier Portell-Canal
Ordinary Council Member

Thank you to the following
members who also served on
our Council during 2021:

Andy Tye
Midlands Soil Discussion Group
Chair (until March 2021)

Daniel Wardak
Early Careers Chair
(until July 2021)

Our Committees

Our committees are led and managed by our volunteers who deliver the strategy of the Society through the groups. Thank you to all of our volunteers who give their time to our various committees in 2021.

The Chair of each Committee is also a member of the Society Council.

Early Careers Committee
Chair: Kirsty Elliott (from August 2021)
/ Daniel Wardak (until July 2021)

Education Committee
Chair: Lois Phillipps (from
September 2021) / Jack Hannam
(until September 2021)

Grants and Awards Committee
Chair: Sacha Mooney (from
September 2021) / Bruce Lascelles
(until September 2021)

Professional Practice Committee
Chair: Mike Palmer

Publications Committee
Chair: Sacha Mooney

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

Our Regional Groups

We operate six Regional Groups to meet the needs of our members in different parts of the country. Each of the Regional Group Chairs is also a member of the BSSS Council and implements the Society's strategy, regionally.

Midlands Soil Discussion Group
Chair: Iain Gould (from March
2021)/ Andy Tye (until March 2021)

Northern Soil Network
Chair: Vacant / Manoj Menon (until
September 2021)

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

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

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

Welsh Soil Discussion Group
Chair: Vacant



**BRITISH SOCIETY
OF SOIL SCIENCE**

Contact us

British Society of Soil Science

Building 42A, Cranfield University
Cranfield
Bedfordshire
MK43 0AL

email: admin@soils.org.uk
phone: + 44(0) 1234 752983

www.soils.org.uk

The British Society of Soil Science is a limited company, registered in England and Wales No. 7110309 and a Registered Charity No. 1134456.