

December 2024

Dear readers, the newsletter team will be taking a winter break before returning with the next edition in January 2025. In the meantime, we would like to take this opportunity to thank you for your readership.

This newsletter provides links to published news articles, preserving the original title and summary line. Views or opinions presented are those of the original author(s) and do not necessarily represent the views of the Royal Society of Biology.

News

Top stories

[Huge deal struck but is it enough? 5 takeaways from a dramatic COP29](#)

COP29 is over, with developing countries complaining that the \$300bn (about £240bn) a year in climate finance they will receive by 2035 is a "paltry sum", writes BBC News.

[COP 16 concludes: UK back on the global stage urging action on nature recovery and supporting 30by30 goals](#)

According to this Government press release, progress was made on several fronts at COP 16, including on the protection of 30% of land and ocean by 2030 with the government publishing new criteria to meet domestic 30by30 targets in England.

[New deal for biodiversity from using nature's genetic information](#)

This Government press release reports on the conclusions of negotiations on Digital Sequence Information (DSI) at CBD COP16, and the development of the new Cali fund.

RSB news

[Science in the spotlight: Autumn Budget 2024 and debate in the House of Lords](#)

Science, technology, and innovation have recently been at the heart of the political agenda. The Royal Society of Biology was pleased to provide a briefing for a debate on the contribution of science and technology to the UK economy in the House of Lords, after some of the encouraging announcements in favour of research and development (R&D) in the Autumn Budget 2024.

RSB partners with Hachette Children's Group for new book series

The Royal Society of Biology (RSB) is delighted to announce its new partnership with Hachette Children's Group (HCG), in conjunction with the Royal Society of Chemistry (RSC) and the Institute of Physics (IOP), for a new education series: Your Expert Guide.

Another successful Biology Week hosted by the Royal Society of Biology

The 13th Biology Week hosted by the Royal Society of Biology saw people from across the UK and around the world taking part in events, competitions, and talks.

Evolution of the RSB's regional network

The Royal Society of Biology has announced a shift in its regional structure following a consultation process earlier this year, aiming to better support local and global engagement in the post-pandemic landscape.

Better biology and science education for all young people across the UK

The Royal Society of Biology has been preparing for curriculum and assessment reform across the UK. The RSB has published an expanded suite of documents to sit alongside its recommendations and framework for 5-19 biology curricula, and is pleased to announce the appointment of its new Curriculum Committee Chair – Professor Dudley Shallcross OBE FRSB.

Plant health and biosecurity

Reducing the impacts of climate and land-use on diseases

The UK Centre for Ecology & Hydrology (UKCEH) highlights a research project which is investigating how climate and land-use change, as well as government policies, will affect the spread of some diseases that pose a particular threat to humans, animals or plants.

Stopping plants from passing viruses to their progeny

The Global Plant Council highlights research which has discovered how plants keep viruses from being passed to their offspring, a finding that could ensure healthier crops. The discovery could also help reduce the transmission of diseases from mothers to human children.

Study shows treed borders around crops provide a base for pollinating, pest-eating hoverflies

Planting and maintaining a border of trees around agricultural fields may help hoverflies, which in turn may help crops, according to research highlighted by the Global Plant Council.

Plant breeding

RHS using AI to create knowledge bank of plants that benefit the environment

The RHS reports that it will use AI to help build a knowledge bank of cultivated plants for specific uses, such as pollination, pollution capture and water management, as it launches a new five year programme of work to commence in 2025.

A new piece in the grass pea puzzle – updated genome sequence published

An international research collaboration has completed the most detailed genome assembly to date of grass pea (*Lathyrus sativus*), potentially accelerating the modern breeding of this underutilised legume for climate-smart agriculture, according to the John Innes Centre.

New research aims to boost sustainable wheat nutrition through microbes

Niab reports that it is a partner in a new three-year, international, interdisciplinary research project focused on identifying genetic components that enhance wheat's capacity to benefit from soil microbes. This initiative aims to improve nutrient uptake, reduce environmental stress, and boost wheat production, especially in low-input farming systems.

CRISPR builds a big tomato that's actually sweet

This Nature News article highlights a study which shows that growing sweeter tomatoes is possible by editing just two of the fruit's genes.

Agriculture

Government provides certainty to horticulture and poultry businesses

This Government press release reports that government has announced a package of measures to provide certainty and stability to farmers and growers in the UK's horticulture, poultry and sheep sectors, including the allocation for the Seasonal Worker visa route for 2025.

Hutton awarded £1M to revitalise UK's raspberry industry

The James Hutton Institute reports on a project which has received funding from UK Research and Innovation's (UKRI) Innovate UK programme to focus on improving the sustainability of raspberry production in the UK.

How to climate-proof crops: scientists say the secret's in the dirt

This Nature News article discusses the benefits that regenerative agriculture can have on soil health and food security.

The power of certifications in the modern agri-food sector

Writing for the Global Plant Council, this Wikifarmer blog discusses the role certifications in the agricultural sector can play in areas such as sustainability and food safety.

Food security

Driving innovative solutions to improve health and nutrition

Innovate UK and BBSRC have announced a £2.5 million investment for 13 projects to drive the design and development of innovative food and beverage products, reports UKRI.

Opinion: Why farm productivity matters

Writing for Niab, Professor Mario Caccamo discusses the need to promote farming productivity in order to keep pace with demand, whilst also reducing environmental impacts.

Biodiversity and conservation

Special Representative for Nature appointed in landmark first

The UK government has appointed Ruth Davis OBE as the first Special Representative for Nature, reports this Government press release.

Alarm call as world's trees slide towards extinction

BBC News reports that the latest extinction red list shows more than a third of species are facing extinction in the wild.

One in three plants call islands home: Many at risk

Science Daily highlights research showing that islands are home to around one in three of the world's plant species, with many of these facing risks from habitat loss, climate warming and invasive species.

England's national parks facing financial peril due to budget cuts, say CEOs

The Guardian reports that England's national parks face a 12% real-terms cut to their budget which would lead to mass redundancies of wardens and the closure of visitor centres and other facilities.

How do herbarium specimens help save plants from extinction?

This Kew Science article discusses the role herbarium specimens can play in plant conservation.

Forestry

Government launches Tree Planting Taskforce to oversee planting of millions of trees across our four nations

This Government press release reports that a new Tree Planting Taskforce has been launched to oversee the planting of millions of trees across the UK.

Study linking climate change to increased burning is 'game-changer' for understanding wildfire risks

The UK Centre for Ecology & Hydrology (UKCEH) reports on a study showing that climate change has significantly increased the amount of land burned by wildfires across the world.

Japan-style 'tiny forests' are taking root in British cities

Writing for the Conversation, Hanyu Qi and Nicola Dempsey, PhD Candidate and Senior Lecturer at the University of Sheffield, discuss the Miyawaki forest method, which involves planting a diverse mix of densely packed native woodland trees that grow quickly in small areas.

Planting trees in the Arctic could make global warming worse, not better, say scientists

An international group of scientists argue that tree planting at high latitudes will accelerate, rather than decelerate, global warming, reports Science Daily.

Efforts under way to save endangered Aspen trees

An initiative to save one of Scotland's most endangered species of tree has been launched in the Cairngorms National Park, reports BBC News.

Business and industry

[New Crop Innovation Centre officially opened by Secretary of State for Scotland and First Minister](#)

The James Hutton Institute reports that the new centre will futureproof crop production and enhance food security for the UK and beyond.

Sustainability

[Trees cool better than reflective roofs in vulnerable Houston neighborhoods](#)

Science Daily highlights a new tool aiming to identify solutions to keep different neighbourhoods cooler during extreme heatwaves.

Opportunities

[Plant Health Professional Register](#)

Those working in plant health are encouraged to apply for the RSB's [Plant Health Professionals Register](#), which was created in partnership with Defra to recognise individuals with skills and experience that align with the current [Plant Biosecurity Strategy for Great Britain](#). You are also invited to join our [Plant Health Professionals LinkedIn network](#) where you can explore and share job opportunities, events and more.

[Nominate your lecturer for the Higher Education Bioscience Teacher of the Year Award](#)

Do you know an inspiring bioscience lecturer? Students can now [suggest](#) one of their lecturers for the Royal Society of Biology's HE Bioscience Teacher of the Year Award. [Visit the award web page for further information](#) about the award. **Deadline 10th December**

[Call for nominations IPBES spatial planning assessment](#)

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), an intergovernmental body and the world's foremost authority on the science of biodiversity and ecosystem services, is calling on experts and fellows to take part in a new assessment focused on integrated biodiversity-inclusive spatial planning and ecological connectivity. Further details can be found in the relevant notification (for [experts](#), and for [fellows](#)). Please note the **deadline for applications is 10th January 2025**.

[Royal Society of Biology travel grants](#)

AMRSB and early-career MRSB members of the Royal Society of Biology can now apply for a travel grant of up to £1,000 to support future travel in connection with biological study, teaching or research. Learn new lab and field techniques, gain professional development skills, and network with academics with the support of a travel grant. Visit the [website](#) for further information and to read reports from [previous grant recipients](#). The deadline for applications is **Friday 24th January 2025**.

T-level placement resource

T Level in Science is a new qualification that's helping to develop the workforce of the future. It's designed to help students gain hands-on skills and work experience – and part of that is a work placement. This resource is aimed at employers and explains how T Level Science students can help you secure the skilled, committed workforce your business needs. It also addresses concerns employers may have about taking on a placement, offers science-specific examples from existing placements, and explains how a placement could work in your organisation. [**Download the resource today!**](#)

Consultations

UKRI seeks your views in 2024 stakeholder perception survey

UK Research and Innovation (UKRI) is asking various communities, from business to civil service, research and academia, or any other group, to provide feedback that will help them address issues, tailor activities and measure progress over the coming years.

Closes: 19 December 2024

RSB Policy Resource Library online

The RSB has created a searchable, digital library of more than 800 statements, responses, briefings and other policy resources produced by the RSB and our Member Organisations across the biosciences. This collection is freely and openly accessible to everyone, including members and non-members, through the [**mySociety portal**](#) (no registration necessary).

Events

Priorities for the new UK Government: Stewarding the natural environment

12 December 2024

18:15 – 19:30

UCL Institute of Archaeology, London, WC1H 0PY

Jointly hosted with the Department of Political Science and UCL Policy Lab, this discussion will be followed by a drinks reception and a chance to network. Tickets are free, but limited and available [**here**](#).

Natural Capital Initiative Summit 2025 - Prioritising wellbeing: evidence needs for action

Wednesday 19 February 2025

09:00 - 17:00

City Hall, Kamal Chunchie Way, London, E16 1ZE

This one-day conference is hosted by the [Natural Capital Initiative](#) (NCI), a partnership between the Royal Society of Biology (RSB), James Hutton Institute, and the UK Centre for Ecology and Hydrology (UKCEH). The aim of the NCI is to support decision-making that results in the sustainable management of our natural capital, facilitating cross-sector dialogue between people from academia, policy, business and civil society. The Summit and resulting report will determine what further evidence is needed to help achieve sustainable management of natural capital, with a focus on underpinning several of the United Nations Sustainable Development Goals (UN SDGs). Book your ticket via the [event page](#).

Plant Biology Education: Creating a Vision for the Future

7 January 2025 – 8 January 2025

University of Lancaster

This collaborative meeting aims to build a strong, inclusive community of plant biology educators across the UK and beyond. This meeting has a primary focus on plant biology teaching in Higher Education, but will also be of interest to high school/college biology teachers and those delivering plant biology education and training in professional contexts. The meeting will focus on nurturing the next generation of plant biologists, recognising the critical role plant science plays in tackling global challenges. By fostering collaboration and sharing best practices, educators in higher education can develop a shared vision for the future of plant science education in the UK. This includes exploring ways to attract a diverse range of talent, prepare students for a variety of careers, and integrate cutting-edge technology into the higher education curriculum. Ultimately, this collaborative effort will work towards a future filled with well-equipped plant biologists ready to solve the pressing issues facing our planet.

Modelling Plant Stem Cells: Evolution, Development and Regeneration

18 May 2025 - 21 May 2025

Fanhams Hall, Ware, Hertfordshire SG12 7PZ

This four-day workshop, organised by the Company of Biologists and led by experts in plant biology from Utrecht University and the Sainsbury Laboratory, offers an in-depth exploration of the evolutionary and developmental mechanisms driving plant stem cell plasticity. Through a combination of theoretical and practical sessions, the workshop will focus on experimental and computational modelling approaches to understanding plant stemness.

And finally...

Australian-led project to grow plants on the moon scheduled for takeoff in 2025

The Guardian reports that an Australian-led project to grow plants on the moon has secured a ride on a lunar mission scheduled for takeoff in 2025.



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