

Plant Science Newsletter a monthly round-up of policy headlines and stories

## August 2024

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**

#### Government launches rapid review to meet Environment Act targets

The Government has announced a rapid review of the Environmental Improvement Plan (EIP) to be completed by the end of the year to deliver the UK's legally binding targets to save nature.

## **RSB** news

#### Results of Signs of Spring citizen science project

More than 3,700 individual submissions were made to the inaugural Signs of Spring Survey launched in 2024 by leading environmental education charity the Field Studies Council (FSC) in partnership with RSB. This has contributed to a new data set which will be used to track changes in UK biodiversity.

#### Winner of School Biology Teacher of the Year Award 2024 announced

The winner of the Royal Society of Biology's School Biology Teacher of the Year Award 2024 is Dr Ali Bune, Subject Leader for Biology and whole school Literacy Coordinator, Bishop's Hatfield Girls' School, Hatfield, Hertfordshire.

## Plant health and biosecurity

#### Devastating crop pathogens can be found by sequencing the air

Farmers can be warned about the appearance of potentially devastating crop pathogens in near real-time, thanks to technology that collects and sequences the air around their fields, reports the Earlham Institute.

# Combined effects of plastic pollution and seawater flooding amplify threats to coastal plant species

This Science Daily article highlights a study suggesting that two of the planet's more pressing environmental stressors have the potential to alter the growth and reproductive output of plants found right along the world's coastlines.

#### Stem cracks in conifers – report it via TreeAlert

Writing for Forest Research, Rubén Manso, Senior Scientist, explains why Forest Research is asking forestry professionals across Britain to report stem cracks using TreeAlert, the online tree health reporting tool.

## **Plant breeding**

#### Study shows the more you know about GMOs, the more you accept them as safe

The Global Plant Council highlights the results of a survey showing that the more people know about gene editing, the more likely they are to feel it is safe to use in agriculture and medicine.

#### Modern wheat has a diminished beneficial root microbiome

Rothamsted Research reports on a study showing that, in contrast to ancestral wheats, modern wheat varieties grown with inorganic fertiliser show markedly fewer beneficial root bacteria compared to their unfertilised counterparts.

## Agriculture

#### Government to restore stability for farmers as confidence amongst sector low

According to this Government press release, the Government has announced its commitment to introduce a new deal for farmers to address low confidence and provide stability for the farming sector.

#### Wildlife boosted by England's nature-friendly farming schemes, study finds

New government research has found that butterflies, bees and bats are among the wildlife being boosted by England's nature-friendly farming schemes, reports the Guardian.

## **Food security**

#### Two-fifths of British berry growers could go bust by end of 2026, study finds

The Guardian highlights a study showing that two-fifths of British growers of strawberries and raspberries could go out of business by the end of 2026 amid rising costs and poor pay from supermarkets.

#### Brexit delays to seed imports could hit crop production, say growers

Vegetable growers in the UK have said crops could be adversely hit this year after post-Brexit border changes resulted in delays to seed imports, reports the Guardian.

## **Biodiversity and conservation**

#### Streetlights may make tree leaves tough and hard for insects to eat

This New Scientist article highlights research showing that urban trees lit by streetlights tend to have tougher leaves that are eaten less by insects than trees that see dark nights.

#### Successful environmental projects benefit nature and people, study finds

Developing 'integrated' plans which achieve the goals of capturing carbon, restoring biodiversity and finding ways to support the livelihoods of the people who live near and in the forests is the key to their success, reports the Guardian.

# A tiny new plant species reaffirms the "miraculous" survival of Western Ecuador's ravished biodiversity

The Global Plant Council reports that a new 5 cm-high plant species has been discovered on the western Andean slopes of Ecuador in an area where scientists once believed a rich diversity of native plants and animals had been totally destroyed.

#### Scottish bog gets world heritage status

After an almost 40-year campaign, one of the most intact and extensive blanket bog systems in the world has been awarded world heritage status, reports BBC News.

### **Forestry**

#### Our changing woodlands now look a shade different

Surveys by the UK Centre for Ecology & Hydrology (UKCEH) have captured how Britain's broadleaf woodlands have changed dramatically over the past 50 years, due to disease, lack of management, climate change and an increase in deer numbers.

#### Wales plants just 12% of woodland target

Forestry experts have said that a 'dismal' lack of tree planting in Wales is failing the country's economic and environmental future, reports BBC News.

#### Measuring how people value trees and woodland

Newly published research explains a measure to identify the social and cultural values people have for trees and woodland in England. This can support local authorities, charities and other organisations in making decisions about how to manage trees, reports Forest Research.

#### Mature trees offer hope in world of rising emissions

BBC News highlights research showing that older trees are able to accelerate their rates of absorbing planet-warming emissions, demonstrating the importance of protecting and maintaining mature forests for tackling climate change.

## **Sustainability**

#### Key Scottish sectors warned of doubling of drought events by 2050

Key Scottish industries are being encouraged to do more to adapt to climate change after researchers found that the number of water scarcity events in Scotland could double by 2050, reports the James Hutton Institute.

#### Gardeners' climate change insights sought as RHS adapts its own plant collections

The Royal Horticultural Society (RHS), University of Sheffield and University of Reading want to hear how climate change is affecting the plants in people's gardens as they combine forces to help future proof them.

### **Other news**

#### New research networks will tackle antimicrobial resistance

BBSRC reports that eight new networks, combining different research specialisms, will work together to tackle one of humanity's biggest threats, antimicrobial resistance (AMR).

# **Opportunities**

#### Plant Health Professional Register

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

#### **Opportunity to engage in RSB Education Policy Work**

There are currently several opportunities for RSB Members to get involved with education policy during an exciting time of change in education systems across the UK. We encourage applications from members, but will consider applications from those willing to become a member on appointment. Across these roles we are looking for a wide range of experience from first time chairs, to experienced education professionals and researchers, and those familiar with the existing committees at RSB. These roles include chair of the <u>Curriculum Committee</u>, and Chair of the <u>Education Policy Advisory Group (EPAG)</u>.

#### Education and Science Policy Committee

RSB is currently seeking two new members to join our <u>Education and Science Policy Committee</u>. Two volunteer member positions are available: one focusing on English curriculum and qualifications (two year term) and another on Welsh curriculum and qualifications (one year term). These roles provide a unique opportunity to engage with education policy development in the nations during ongoing and upcoming reforms. For more information and to apply, please visit the **myRSB jobs board**.

Deadline for applications: 26 August 2024

#### Membership Assistant (Client Services)

The RSB is currently looking for a Membership Assistant who will work as part of a friendly team to support client organisations in the day to day management of membership and related services. Dealing with external officers at all levels, as well as individual members, applicants and others, the successful candidate will have excellent customer service skills, an attention to detail and be able to manage several concurrent projects. This key role offers potential for promotion, an excellent grounding in membership and charity administration, and the option to choose to work a four-day work on completion of probation.

Deadline for applications: 21 August 2024

#### Appointments to a DAERA High-Level Science Advisory Group

The Department of Agriculture, Environment and Rural Affairs (DAERA) welcomes applications from a range of scientific backgrounds interested in joining its new High-Level Science Advisory Group, to provide expert independent science advice and challenge across DAERA's full remit. **Deadline for applications: 22 August 2024** 

# Consultations

#### BBSRC Forward Look for UK Bioscience 2024: Community Consultation

The Biotechnology and Biological Sciences Research Council (BBSRC) has launched its 2024 community consultation. This document will underpin BBSRC's strategic direction over the coming decade. Through consultation, BBSRC hopes to deepen its understanding of the current drivers of bioscience research and innovation. BBSRC wants to hear from anyone who forms part of this community, whether you work in research and innovation or are a business owner, a policy professional, a public engagement specialist, an end user of bioscience or an interested member of the public.

Closes: 20 September 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**

#### **Biology Week & Plant Health Series: Behind the scenes at Kew Gardens**

10 October 2024

10:30 - 15:30

#### Royal Botanic Gardens, Kew, Richmond TW9 3AE

Join the Royal Society of Biology for a visit to the <u>Royal Botanic Gardens, Kew</u>, one of the UK's most impressive and important botanical research institutions that houses the 'largest and most diverse botanical and mycological collections in the world', for an event as part of the <u>RSB</u> <u>Plant Health Series</u>. Attendees will hear from a series of expert speakers, including representatives from the <u>Centre for Forest Protection</u> who will be discussing their ongoing projects, as well as an overview of genomic and tree health research taking place at Kew.

#### Biology Week: It's a Wild Life - Tales from Television

7 October 2024 15:00 - 16:00 Online

In this talk, award-winning television presenter George McGavin shares his personal journey to discover the world of wildlife - big and especially small. This event would be of interest to scientists, budding biologists, entomologists, science communicators, and anyone interested in natural history careers.

#### Plant Pathology 2024 and Early Careers Plant Pathology 2024

#### 10 September 2024 - 13 September 2024

# Mathematical Institute, University of Oxford, Radcliffe Observatory, Andrew Wiles Building

The BSPP invites you to register for Plant Pathology 2024 (#PPATH2024), the main annual meeting of the British Society for Plant Pathology. The first two days of the main meeting will feature open sessions based on submitted abstracts, presentations from our invited speakers, the RKS Wood Prize lecture, PH Gregory Prize session and the J Colhoun Poster Prize. ECPP2024 will run alongside the event, a chance for early career researchers to network, gain experience and share their work.

#### 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.

# And finally...

#### Why do plants wiggle? New study provides answers

Decades after his voyage on the HMS Beagle, Charles Darwin became fascinated by why plants move as they grow - spinning and twisting into corkscrews. Now, more than 150 years later, a new study may have solved the riddle, reports ScienceDaily.

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