



member

PlantSci Newsletter – a monthly round-up of plant science policy headlines and stories

September 2019

News

Royal Society of Biology news

Opportunities not to be missed...

Insect declines in the headlights

A free Policy Lates on insect decline. This event will explore the evidence behind the headlines. We will consider what we know about insect declines and what we don't know, to better understand the causes and consequences of insect population changes. Our expert panel will discuss how we monitor and conserve this vital and diverse group of organisms, while addressing challenges such crop protection and control of pest species.

London, 7 October 2019

Bioscience Careers Day 2019

The Bioscience Careers Day (BCD) is the perfect opportunity to get your career on track - whether you are interested in working in research, science communication or even if you just want to know what options are available to you once you finish your bioscience degree. This year's programme features a panel discussion on careers in plant science. Visit <u>here</u> for full details and to buy your £10 ticket. Direct queries to Harriet McAra at <u>events@rsb.org.uk</u>

Middlesex University, London, 26 October 2019

Plant health and biosecurity

International Year of Plant Health 2020

Next year has been designated by the Food and Agricultural Organisation (FAO) as the International Year of Plant Health 2020 (IYPH2020), a momentous opportunity to celebrate the benefits of healthy plants.

Deadly olive tree disease spreads to France

Two trees infected with subspecies of *Xylella fastidiosa* that killed 1m trees in Italy

CRISPR might be the banana's only hope against a deadly fungus

Researchers are using the gene-editing tool to boost the fruit's defences and prevent the extinction of a major commercial variety

Jackdaws to the rescue as historic estate battles box tree caterpillar Historic gardens fighting against an invasive caterpillar that destroys formal box planting may have a new ally in the form of jackdaws, the National Trust has said

Insects might soon be trained to protect our crops

Plant breeding

MEPs rebuke European Patent Office over conventional breeding copyright

In a new episode of the longstanding legal saga on biotech inventions, the European Parliament delivered a reprimand to the European Patent Office (EPO) reaffirming that tomatoes, broccoli and other plants obtained by essentially biological processes must not be patentable

Wild wheat genetics offer climate hope for food crops

Drought-tolerant barley could help 'future-proof' whisky industry

Harnessing tomato jumping genes could help speed-breed drought-resistant crops

Once dismissed as 'junk DNA' that served no purpose, a family of 'jumping genes' found in tomatoes has the potential to accelerate crop breeding for traits such as improved drought resistance

Agriculture

UK farms plan for going 'carbon neutral'

Phosphate fertiliser 'crisis' threatens world food supply

Use of essential rock phosphate has soared, but scientists fear it could run out within a few decades

Abattoir Waste Fertilisers Could Become the Norm

Scientists led from Rothamsted Research say their tests on a new type of sustainable fertiliser are very encouraging – although the news might leave many vegans conflicted

Benefits to farmers of global heating outweighed by losses, says report Value of European agriculture could fall 16% in 30 years due to drought and higher rainfall

Biodiversity and conservation

David Attenborough to front UK study on biodiversity loss

Broadcaster will act as ambassador for government review into global costs and risks of habitat loss

The RSB is responding to the Dasgupta Review on the Economics of Biodiversity. Please see the item below under 'Consultations' for details of how to contribute to our response.

\$1m a minute: the farming subsidies destroying the world

'Perverse' payments must be redirected to measures such as capturing carbon, report says

<u>World losing area of forest the size of the UK each year, report finds</u> Chance of ending deforestation by 2030 seems lower than when pledge was made five years ago

Amazon fires: Seven countries sign forest protection pact

'Alarming' extinction threat to Europe's trees

<u>UK roadsides on verge of becoming wildlife corridors, say experts</u> New guidelines could save councils money and lead to 400bn more wildflowers

Restoring peatlands to 'reduce risk of wildfires' in south Wales

Meat-eating plants making a comeback in England

Forestry

<u>China's tree-planting drive could falter in a warming world</u> Researchers warn that the country's push to hold back its deserts could strain water resources

Planting more trees 'could lead to species loss'

Britain's ancient yews: mystical, magnificent – and unprotected Some have stood for thousands of years, yet trees enjoy little legal protection. Campaigners aim to change that

Call for 1m people to join UK's biggest mass tree-planting campaign Woodland Trust urges volunteers to grab a spade and help tackle the climate crisis

Woodland sounds help relaxation more than meditation apps - study National Trust research finds birdsong and rustling leaves increase relaxation by 30%

Other news

Germany to ban use of glyphosate weedkiller by end of 2023

Chemical is blamed for death of insects and suspected to cause cancer in humans

Centre for Ecology & Hydrology will become independent on 1 December 2019

CEH will become autonomous from UK Research & Innovation (UKRI) and the Natural Environment Research Council (NERC), launching as a not-for-profit company limited by guarantee with charitable status on 1 December this year.

People

Chief executive brings successful five years at the helm to an end

Prof Achim Dobermann has announced he is to leave "wonderful" Rothamsted in December

Opportunities

Royal Society of Biology, Outreach and Engagement Volunteering Opportunities

RSB are looking for local volunteers to help run our hands-on science activities at <u>Big</u> <u>Biology Day Cambridge</u> at Cambridge CB2 8PE, on **5th October 2019**; and at <u>Conwy</u> <u>Feast</u>, at Conwy, Wales, on **26th – 27th October 2019**. If you live nearby and are interested in volunteering to help the RSB outreach team deliver our hands-on science activities please email Dr Amanda Hardy via <u>outreach@rsb.org.uk</u>

BioArtAttack Competition

What is a BioArtAttack? Your entry can be anything from drawings and sculptures to models and collages of any scale. The piece of art created can be entered by an individual or as a group, including classes, lab groups or any group of biology enthusiasts.

Closes: 13 October 2019

Diversity in Science Grants

The Biochemical Society's Diversity in Science Grants scheme provides grants of up to £500 to individuals, groups, charities or not-for profit organisations to support and address issues relating to diversity in science. Closes: 18 October 2019

Education Policy Officer (0.4 FTE)

The Royal Society of Biology is seeking a part time education policy officer to support the development of a framework for 5 - 19 biology, and drive forward the Society's education policy work to support the learning of teaching of the biosciences in schools. This role focuses on primary and secondary education, and would suit candidates with a science undergraduate degree (preferably in the biosciences) and experience of teaching or UK science curricula. For more information and to apply, visit <u>myRSB</u> job portal.

Closes: 20 October 2019

MRC / AMS Policy Internship Scheme

The Medical Research Council and the Academy of Medical Sciences' are pleased to open applications to their <u>policy internship scheme</u>. Students will receive first-hand experience of medical science policy and have the opportunity to build valuable relationships with key stakeholders across the sector. The scheme is open to all MRC-funded PhD students in their third or fourth year of study, and successful interns will undertake a 12-week placement at the Academy's offices in London. Closes: 21 October 2019

RSB Big Biology Day Grant 2019

Are you interested in hosting a one-day science outreach festival to share your passion for biology and the natural world? Apply for the Royal Society of Biology's <u>Biology Day Grant 2019</u> and get up to £500 to host your own Big Biology Day. Closes: 1 November 2019

RSB Outreach and Engagement grant scheme 2020

If you have an idea for an outreach and engagement event or activity and are looking for funding to make it happen in 2020. Apply now to the Royal Society of Biology's <u>Outreach and Engagement grant scheme online</u> and submit your application for a grant of up to £500. Closes: 1 November 2019

Help to promote the IYPH 2020 with your plant health story!

The Food and Agriculture Organisation (FAO) is collecting stories that demonstrate the importance of plant health to share during the International Year of Plant Health 2020.

Closes: 15 November

Consultations

Improving higher technical education Closes: 29 September 2019

Standards for biodegradable, compostable and bio-based plastics: call for evidence Closes: 14 October 2019

Developing a national food strategy

The RSB response to this consultation is currently in draft. Please contact <u>consultation@rsb.org.uk</u> for more information and if you would like to contribute. Closes: 25 October 2019

Dasgupta Review on the Economics of Biodiversity

HM Treasury launches a call for evidence for an independent global review, led by Professor Sir Partha Dasgupta, to assess the economic value of biodiversity and identify actions that will simultaneously enhance biodiversity and deliver economic prosperity. The RSB response to this consultation is currently in draft. Please contact consultation@rsb.org.uk for more information and if you would like to contribute. Closes: 6 November 2019

SCI Horticulture Group David Miller Awards

Hosted by RHS Wisley this year, we are delighted that Alistair Griffiths, RHS Director of Science and Collections will be giving an introductory talk for the event. Subsequent talks will be by the 2019 winners, plus follow up talks from the 2018 winners.

There will also be a guided tour as well as free time for attendees to explore the gardens at Wisley. Woking, 14 October 2019

The Physiological Society's parliamentary launch of healthy ageing report

'Growing Older, Better' is a culmination of a 12 month project looking at the role of R&D, funding and public health messaging into delivering the Government's 'Ageing Society' Grand Challenge. If you would like to attend please contact <u>Andrew</u> <u>Mackenzie</u>.

London, 15 October 2019

Plant Quantitative Genetics: from Theory into Practice

This one off meeting will bring together plant quantitative geneticists and breeders for a lively discussion of the most up to date advancements in quantitative genetics as applied to plants, and particularly crops, and to identify on-going opportunities for discussion and collaboration between the academic community and the plant breeding industry.

7 November 2019, Birmingham

El Innovate: genomics data to advance bioscience

This event will showcase capabilities and expertise in genomics, bioinformatics, synthetic biology, crop phenotyping, and high-performance computing. This expertise allows us to understand complex biological systems in plants and animals and their interaction with the environment, which can help to develop solutions to industrial challenges in global food security, improving human, animal and plant health, and aid conservation.

13 November 2019, Earlham Institute, Norwich

For the full events list, please see the UKPSF website.

And finally...

Mystery 'asparagus' agave flowers in Cambridge after 57 years

Biologist special issue celebrates Society's 10th anniversary

A bumper special issue of <u>The Biologist</u>, out next week, celebrates the start of the RSB's anniversary year. Specially-commissioned content includes an interview with CRISPR pioneer Jennifer Doudna, the biologist at the heart of one of the biggest science stories of the decade. The issue also features articles on chimpanzee communication, the 'Search for Lost Species' conservation project, developments in archaeal biology, and a roundtable discussion on the RSB's role supporting biology over the past ten years.

Latest RSB textbooks published

There are now eight titles available to order or pre-order in the <u>Oxford Biology</u> <u>Primers</u> series, published by the RSB and Oxford University Press. Hormones is the third title in the series to be published so far, with five further titles available to preorder, and many more due out in 2020 (all priced £19.99). Foundation level primers in the series, such as Hormones and Biochemistry, encourage further study at A level ahead of the transition to higher education, while others tackle more specific topics for graduate students moving towards independent research (such as Cancer Biology or Mammalian Synthetic Biology).

Growing the future – a report from the UK Plant Sciences Federation (UKPSF)

Launched in January 2019, *Growing the future* highlights to policymakers and others the excellence of plant science in the UK, and its importance to the biosciences, the economy, and society both at home and around the world. The report is available to download here.

UK Plant Sciences Federation Royal Society of Biology Science Policy Team 1 Naoroji Street London WC1X 0GB policy@rsb.org.uk Please note that any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the Royal Society of Biology.

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