





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

April 2019

News

Plant health and biosecurity

Public urged not to bring plant pests and disease into the UK

Plants, seeds, flowers, fruit or vegetables can carry pests and diseases that would destroy UK plants, trees and crops.

Major shake-up of weed investment required

The UK's approach to weed management investment needs to be overhauled, if the needs of industry are to be met.

Thousands of species at risk from native oak decline

Oak trees have long had a reputation for supporting a range of biodiversity, however, research published today has uncovered just how many species depend on British oak to survive.

<u>Understanding how crop diseases and climate change interact is vital</u> But such understanding is poor

UK councils assess weedkiller use after US cancer court case

Rulings against Roundup owner Monsanto prompt authorities to seek non-chemical alternatives.

Nipping Floating Pennywort in the bud!

Pilot scheme to remove the fast growing invasive species floating pennywort on River Colne.

Agriculture

RSPB resigns from government's pesticides forum after chemical use soars

The RSPB and dozens of environmental groups have resigned from the government's pesticides forum after two decades claiming the use of dangerous chemicals is now far worse than when they joined.

EU bans UK's most-used pesticide over health and environment fears

Officials say chlorothalonil poses high risk to wildlife and may potentially harm humans.

Pesticides and antibiotics polluting streams across Europe

Wildlife and human health are threatened say scientists as Syngenta accepts 'undeniable demand' for change.

'It's a groundswell': the farmers fighting to save the Earth's soil

Farmers across the world are ditching their ploughs to protect ecosystems – and it's working.

Biodiversity and conservation

Deforestation: Tropical tree losses persist at high levels

Fifty-year study shows climate change is pushing uk wildlife 'out of sync'

Climate change has advanced the breeding season of many species in the UK – but just how much varies markedly across the country.

Road Verge Disaster: 17,000 Orchids Gone In One Day

'Global deal for nature' fleshed out with specific conservation goals

To maintain a liveable planet, governments need to protect 30% of Earth's land and sea and sustainably manage another 20%, say researchers.

National Trust to create 68 orchards by 2025 to boost wildlife

Bird and insect habitats lost as number of traditional orchards more than halved since 1950.

NTBG Researchers Rediscover 'Extinct' Native Plant Using a Drone

Utilizing drone technology, researchers from the National Tropical Botanical Garden (NTBG) on Kauai rediscovered an 'extinct' plant native to Hawaii.

Forestry

Restoring natural forests is the best way to remove atmospheric carbon

Plans to triple the area of plantations will not meet 1.5 °C climate goals. New natural forests can, argue Simon L. Lewis, Charlotte E. Wheeler and colleagues.

Tree sleuths are using DNA tests and machine vision to crack timber crimes

Scientists are optimistic that innovative techniques can pinpoint the true origin of timber.

Sustainability

Climate change being fuelled by soil damage - report

Drought is not just about water. It affects air pollution, too

The severe drought that struck California from 2011 to 2015 had an obvious impact on rivers, forests, and wildlife. Now, a new study shows it also had some surprising effects on the state's notorious air pollution, adding new wrinkles to the state's efforts to clear the skies.

This scientist thinks she has the key to curb climate change: super plants

Dr Joanne Chory hopes that genetic modifications to enhance plants' natural carbon-fixing traits could play a key role – but knows that time is short, for her and the planet.

'Biosolar leaf' project targets air pollution on London campus

Scientists say technology can do the work of 100 trees using the surface area of one.

French low-carbon label plants seeds of agricultural and forestry transition

A new label in France aims to encourage the emergence of projects that reduce and sequester greenhouse gas emissions.

Other news

Bill introduced to allow Kew to bloom for new generations

The Kew Gardens (Leases) No. 3 Bill will allow Kew Botanic Gardens to prosper for centuries to come.

Australian gene-editing rules adopt 'middle ground'

Updated regulations allow scientists to use some genome-editing techniques in plants and animals without government approval.

Why 'plant blindness' matters - and what you can do about it

Opportunities

Fascination of Plants Day 2019

We invite YOU to organize a plant-related activity on/around 18 May 2019, to interact with the public. If you are arranging an event in the UK that is appropriate for Fascination of Plants Day, please email the UK National Coordinator, Geraint Parry (geraint@garnetcommunity.org.uk) who will help you add it to the official UK FoPD page.

Announcement of Opportunity: Climate, environment and health

Applications are invited for multilateral, inter- and transdisciplinary research projects which seek to improve understanding of the pathways between climate, environment and health as outlined in the call document.

Closes: 6 May 2019

Plant Health Undergraduate Studentships 2019

Nine summer studentship projects on plant health are available for bioscience undergraduates. The selected students will work with leading plant health researchers, gaining great experience as well as receiving a bursary. The projects will run for 10 weeks over summer 2019. The studentships are arranged by the UK Plant Sciences Federation (UKPSF) with funding from Defra, BSPP, N8 AgriFood and the David Colegrave Foundation.

Closes: 8 May 2019

New cut-off for highlight topic ideas

NERC invites the environmental science community to submit new ideas for highlight topics.

Closes: 15 May 2019

Microbiology Society call for evidence

The Microbiology Society have launched a call for evidence to inform their <u>"A Sustainable Future" policy project</u> on the UN Sustainable Development Goals (SDGs). They are seeking views and evidence on challenges to achieving the SDGs, and the ways that microbiology can and does contribute to achieving the SDGs, including knowledge, skills, research, innovation and technology. If you are an individual or organisation with expertise in this area, please complete their <u>short questionnaire</u>.

Closes: 17 May 2019

Future Leaders Fellowships

The UK Research and Innovation Future Leaders Fellowships (FLF) will grow the strong supply of talented individuals needed to ensure that UK research and innovation continues to be world class.

Closes: 30 May 2019

RSB Outreach and Engagement Award 2019

Are you a bioscience researcher involved in science communication? If you work in any sector of UK biosciences, apply for the Royal Society of Biology Outreach and Engagement Award 2019 and win up to £1500.

Closes: 28 June 2019

The Nancy Rothwell Award 2019

The Nancy Rothwell Award 2019 specimen drawing competition for 7 - 18 year olds is now open for submissions. Prizes include an experience day at the <u>Royal Veterinary College</u> for students, and their school can also win £100. Visit the Royal Society of Biology <u>website</u> for more information.

Closes: 30 July 2019

Royal Society of Biology, Outreach and Engagement Volunteering Opportunities in 2019

RSB are looking for local volunteers to help run our hands-on science plant growing activities at <u>Field to Fork</u> at Harper Adams University, on **4th May 2019**; <u>Hullabaloo 2019</u> at Sandown, Isle of Wight on **11th - 12th May 2019** and <u>Lambeth Country</u> **Show** at Brockwell Park, London on: **20th - 21st July 2019**.

Pre-announcement: Understanding and countering bacterial plant diseases

BBSRC, on behalf also of the Department for Environment, Food and Rural Affairs, the Natural Environment Research Council and the Scottish Government, will soon be launching a call for research to address threats to UK plant health and biosecurity from bacterial diseases.

Consultations

Plastic food and drink packaging inquiry launched

The Environment, Food and Rural Affairs Committee is launching an inquiry into plastic food and drink packaging.

Closes: 2 May 2019

Call for climate change evidence launches today

Closes: 10 May 2019

Consultation on Environmental Principles and Governance in Scotland

Closes: 11 May 2019

<u>Invitation to submit views and other information on "Digital sequence information"</u>

Views on the use and relevance of digital sequence information for food security and nutrition invited by the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture

Closes 17 May 2019

<u>Future frameworks for international collaboration on research and innovation:</u> <u>call for evidence</u>

Closes: 24 May 2019

BBSRC asks for community input on data intensive bioscience

BBSRC is conducting a review of data-intensive bioscience research in 2019.

Closes: 10 June 2019

Events

Valuing our Life Support Systems 2019 - Book your place now!

Book your place now for the Natural Capital Initiative's 10th anniversary summit by **9th May**. The summit offers an independent platform for people in science, policy, NGOs, businesses and local communities to discuss and debate innovative natural capital solutions that enhance the environment and strengthen society. The programme for this event is now online.

21-22 May 2019

The Crystal, London

Inside our world; Inside El

Ever wonder what goes on behind science institute doors? Come and find out about El's unique and fascinating bioscience at the Open Day: 'Inside El' on Tuesday 21 May 2019.

21 May 2019

Earlham Institute (EI), Norwich

Plant, Cell & Environment 40th Anniversary Symposium

Plant responses to environmental stimuli: differences, similarities and crosstalk. This symposium, marking the 40th anniversary of Plant, Cell & Environment, will be a celebration of plant physiology.

4th - 6th september, 2019 Glasgow

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

And finally...

Artificial Intelligence is making pesto even more delicious

What goes into making plants taste good? For scientists in MIT's Media Lab, it takes a combination of botany, machine-learning algorithms, and some good old-fashioned chemistry.

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 <u>here</u>.

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