





member

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

October 2020

This newsletter provides links to published news articles from a range of sources. 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 and debate

RSB news

Science Minister discusses global challenges for Biology Week 2020

UK science minister Amanda Solloway MP and Hilary Benn MP took questions on a range of science policy topics, from the future of research funding to climate change and COVID-19, at an event organised as part of RSB's Biology Week 2020.

The RSB launch this year's news-style programme, in collaboration with ITN **Productions**

The RSB and ITN Productions have launched a new current-affairs style show in partnership with a number of leading bioscience organisations, exploring how their work is looking to positively impact the future.

Plant health and biosecurity

National Trust suffers 'worst year' for ash dieback

The National Trust has said it has experienced the worst year on record for ash dieback on its estates.

Amsterdam releases 5,000 leaf fleas to halt Japanese knotweed spread

The Dutch Government issues exemption to alien species ban in attempt to control destructive plant.

Plant breeding

Genetically modified soybean gains EU Commission approval

A genetically modified soybean has been authorised for food and feed, but not cultivation, by the European Commission, paving the way for a full launch of the variety in the US and Canada in 2021.

Pioneers of revolutionary CRISPR gene editing win chemistry Nobel

Emmanuelle Charpentier and Jennifer Doudna share the award for developing the precise genome-editing technology.

Agriculture

UK food standards: why No 10's lack of commitment is making farmers furious

In a long and impassioned debate in the House of Commons, amendments to the agriculture bill that had almost universal backing from farming leaders were defeated.

Intensive farming worldwide threatens Paris climate accord, report says

Rising emissions of nitrous oxide from farming are putting world on track to exceed 2C heating, according to new research.

Local measures would provide best protection for habitats threatened by nitrogen pollution

Targeted local action would be the most effective way to protect UK nature conservation sites from atmospheric nitrogen pollution, according to new research that will inform government policies.

UK supermarket salad suppliers investigated over pesticides in rivers

Environment Agency takes action against one site and looks into more than 50 others.

Defra's estimate 2020 UK wheat crop is lowest since 1981

Defra's first estimate of the UK's 2020 wheat crop has come in at 10.1m tonnes – 37.5% lower than 2019, well below the five-year average of 15.1m tonnes and the lowest since 1981.

Google reveals Mineral crop-inspecting robots

BBC News reports on prototype robots unveiled by Google's parent company that can inspect individual plants in a field, to help farmers improve crop yields.

Why a Zimbabwean farming project failed: lessons for rural innovation

Studying conflict in agricultural innovations can lead to a better understanding of the appropriateness of certain technologies in terms of how they're designed, promoted and how they're linked to rural livelihoods.

Food security

Ending world hunger by 2030 would cost \$330bn, study finds

Research suggests that by targeting enhanced aid money more effectively and with greater innovation, a solution is possible.

Biodiversity and conservation

Rewild to mitigate the climate crisis, urge leading scientists

Restoring degraded natural lands highly effective for carbon storage and avoiding species extinctions, study finds.

Fifth of countries at risk of ecosystem collapse, analysis finds

Trillions of dollars of GDP depend on biodiversity, according to new report.

Vast majority of Europe's key habitats in poor or bad condition - report

State of Nature in the EU survey finds only a quarter of species have good conservation status.

Timmermans calls for greater urgency to tackle biodiversity crisis

Voters and the general public need to increase pressure on politicians to act more urgently in order to protect biodiversity, European Commission Vice-President Frans Timmermans says.

'Rarest fern in Europe' discovered in Ireland

Variety has only ever been found in Caribbean more than 4,000 miles across Atlantic.

Forestry

HS2: Moving ancient woodland habitat for rail line flawed, ecologists say

Moving ancient woodlands cut down to make way for HS2 is a fundamentally flawed idea, leading ecologists say.

Amazon near tipping point of switching from rainforest to savannah

Climate crisis and logging is leading to shift from canopy rainforest to open grassland, researchers warn.

Norway funds satellite map of world's tropical forests

A unique satellite dataset on the world's tropical forests is now available for all to see and use.

Satellites could soon map every tree on Earth

An analysis of satellite images has pinpointed individual tree canopies over a large area of West Africa. The data suggest that it will soon be possible, with certain limitations, to map the location and size of every tree worldwide.

Forest darkness helps stave off effects of nitrogen pollution – but this is set to change

Europe's forests are sitting on a pollution timebomb which could rewrite their ecology when it explodes, say researchers.

Gardens help towns and cities beat countryside for tree cover

Urban areas among those with highest tree cover in England and Wales, research finds.

Sustainability

Fears over 'weakening' of UK green watchdog

Campaigners fear that the legal body designed to protect the environment on behalf of citizens is being undermined by the UK government.

Natural England sets out fresh vision for our natural environment

Natural England's vision for the next five years seeks to help all children, wherever they live, to enjoy the benefits of a thriving natural environment.

Greener play areas boost children's immune systems, research finds

Autoimmune diseases are rising fast but first experimental study shows nature could help.

Public love for nature during Covid-19 highlighted by new survey

Survey revealed that during April-June 2020 almost nine in 10 adults in England reported that protection of the environment is important to them personally.

Other news

Cambridge University plant collection 'most accessible in the world'

A university's entire 14,000 plant collection has been listed online for the first time.

Opinion

The invisible hand of the market won't protect our food or fields

Sue Pritchard, chief executive of the Food, Farming and Countryside Commission, argues that the defeat of amendments to the agriculture bill is a blow to the many who believe Britain could lead the world in sustainable farming.

Why the hidden world of fungi is essential to life on Earth

Fungi have long supported and enriched life on our planet. They must be protected as fiercely as animals and plants.

Opportunities

Plant Healthy e-Learning Modules

The Plant Health Alliance has launched five Plant Healthy <u>online training modules</u> covering a range of subjects fundamental to the management of plant health and biosecurity in the UK.

RSB outreach activities at online science festivals

Families will now be able to take part in some RSB simple hands-on science activities after watching short films of our activities as part of the GSF 2020: Science on the Sofa, online from 9th September - 9th November 2020. The online science festival has a digital programme of hands-on activities, talks, shows and more, to entertain and inspire. Our hands-on science videos will also be available at Swansea Science Festival online over the weekend of 24th - 25th October 2020. The online science festival has a digital programme of presentations, talks, interactive workshops and demonstrations, there will be something for everybody to enjoy.

On 21st - 22nd November 2020 RSB will host its own inaugural Online Science Festival with a digital programme of hands-on activities and more. The latest festival updates and details will be posted online soon.

Emerging Topics in Life Sciences

Emerging Topics in Life Sciences is planning a special themed issue exploring emerging technologies, approaches and products in the life sciences industry space, and we would be delighted if you would consider contributing. The journal is published by Portland Press on behalf of the Biochemical Society and the Royal Society of Biology, with all profits returned in service of the community. Open Access publication is available but is not required, with open access articles deposited to PubMed Central. All submissions will be independently peer reviewed.

If you are interested, you can choose to submit either a short, 3000-word mini-review of the latest findings, challenges and future implications, or a 1000-word opinion-based perspective piece. Our aim with the issue is not to provide an in-depth review of everything currently ongoing in industry, but to inform our academic audience of some of the most recent developments and encourage them to explore. Ideally, we are looking for submissions in early 2021, however we are able to be flexible and work with you if this is something you are interested in. Contact editorial@portlandpress.com (FAO Emma Pettengale) to discuss further details

Consultations

Consultation: Non-native control of Dryocosmus kuriphilus

Defra are seeking views from stakeholders on whether Torymus sinensis should be released into England to suppress populations of Dryocosmus kuriphilus (oriental chestnut gall wasp). Closes: 16 November 2020

Tree Planting and Woodlands inquiry

The Environment, Food and Rural Affairs Committee is holding an inquiry into tree planting targets, plans and whether existing woodlands are sufficiently protected Closes: 19 November 2020

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

Online Bioscience Careers Day 2020

Find out about the variety of careers open to bioscience students at the annual Royal Society of Biology Bioscience Careers Day (BCD), taking place this year online. Online, 2-6 November 2020

Habitat loss and human health

A YouTube livestream from the Zoological Society of London (ZSL) on understanding the links between ecosystem degradation and infectious disease. ZSL will examine the latest research in this area and show that there is a strong need to carefully manage future landscape change across the world, to protect biodiversity, and by doing so potentially limit human exposure to dangerous pathogens.

Online, 10 November 2020

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Policy Lates: Climate crisis - biosciences for a state of emergency

A free, online Policy Lates event exploring the role of biosciences in addressing climate change.

Online, 23 November 2020

Quick Start Guide to Connecting with Industry

This lively and informative one hour interactive webinar will consider different ways in which researchers can work with industry including collaboration, joint funding, consultancy, startup and a career in business.

Online, 25 November 2020

Due to the COVID-19 pandemic, all in person RSB events due to take place in 2020 have been cancelled, postponed or moved to an online format. Updated information will be made available on the RSB events pages. Postponed events will hopefully run in late 2021. We recommend also checking other external event webpages for updates and continuing to monitor and follow official advice.

And finally...

UK set for burst of vivid autumn colours after sunny September

National Trust encourages people to get out into nature to enjoy spectacular displays

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

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