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# Science Policy Newsletter – a weekly round-up of policy headlines and stories

### 10 July 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**

# **Royal Society of Biology news**

#### **COVID-19 Bulletin**

For further detail on COVID-19 research, news and updates, RSB has developed a fortnightly bulletin collating some of the bioscience behind the outbreak and response, see <u>our webpages</u> to read previous editions and subscribe to the next.

#### Main RSB webpage on COVID-19

The RSB is working to adapt and ensure our services are delivered to the greatest extent possible whilst also taking into account Public Health England and Government advice during the pandemic. We regularly update this webpage with relevant information about our activities, initiatives and community support.

#### **Education during COVID-19**

An RSB webpage listing advice, resources and announcements for schools, students and parents during the COVID-19 pandemic.

#### Health and biomedicine

#### Six months of coronavirus: the mysteries scientists are still racing to solve

From immunity to the role of genetics, Nature looks at five pressing questions about COVID-19 that researchers are tackling.

#### Does the key to anti-ageing lie in our bones?

Writing for the Guardian, David Cox explores how Osteocalcin, a hormone produced in the bones, could one day provide treatments for age-related issues such as muscle and memory loss.

#### World-leading study into long-term health impacts of COVID-19 launched by UKRI and NIHR

UK Research and Innovation and the National Institute for Health Research have announced £8.4 million funding for one of the world's largest studies into the long-term physical and mental health impacts of coronavirus on hospitalised patients.

#### Coronavirus: world treating symptoms, not cause of pandemics, says UN

Ongoing destruction of nature will result in stream of animal diseases jumping to humans, says UN report

For further information on the one health approach, as part of the <u>RSB's Policy Lates</u> series in 2020, a panel of experts came together for an event online to discuss the challenge of antimicrobial resistance (AMR) and one health approaches. A recording of the evening's discussions is available on the <u>RSB YouTube</u> channel or you can read our <u>news</u> story for a summary of the event.

## **Agriculture and fisheries**

#### When the drugs don't work, new study published in Nature Communications

A study, led by Rothamsted Research, shows that one such herbicide mixture strategy employed by farmers, can have the unintentional consequence of promoting a different 'type' of resistance.

#### Meat and dairy production emit more nitrogen than Earth can cope with, according to New Scientist

An article in New Scientist describes how Aimable Uwizeye at the UN Food and Agriculture Organization and his colleagues found that the livestock sector accounts for about a third of all humanity's nitrogen emissions, which are also released by burning fossil fuels and other activities.

### **Forestry**

#### How Europe can fix its forests data gap

A Nature Editorial, exploring how the European Union should improve how it collects forest data, which are essential to its ambitions in biodiversity and climate change.

## **Environment and ecology**

#### New report calls for ambitious pesticide reduction target

The Wildlife Trusts has published a new report 'Reversing the decline of insects' which shows how people, in every part of society, wherever they live, can take action to bring back insects.

For further information on insect declines, as part of the <u>RSB's Policy Lates</u> series in 2019, a panel of experts came together for an event exploring the evidence behind the headlines, to better understand the causes and consequences of insect population changes. Read our event <u>news story</u> and see highlights on our <u>Twitter Moments</u>.

#### Feathers offer clue to capercaillie's survival

The BBC describes how scientists have tested more than 800 feathers collected in the Cairngorms in an effort to extract the DNA of one of the UK's rarest birds.

### Seahorses' return threatened by Dorset visitor influx

The BBC reports that conservationists have warned the recent influx of visitors to the Dorset coast has placed its protected seahorses at risk.

# **Climate and energy**

#### Climate change: UK could hit 40C 'regularly' by end of this century

Sweltering temperatures of up to 40C could be a regular occurrence in the UK by 2100 if carbon emissions stay very high says the Met Office.

#### Climate change: why farmers are among our best guides for making sense of topsy-turvy weather

Writing in the Conversation, John Martin, Honorary Research Fellow in Agrarian History, University of Leicester and Paul Merchant, Oral Historian and Researcher, British Library discuss how the experiences of farmers could be just as useful for understanding climate change and its influence on the food we produce as the data scientists collect.

#### Waste

#### Work begins on UK system for estimating COVID-19 cases from wastewater

Scientists will develop a standardised UK-wide system for detecting coronavirus in wastewater, in order to provide an early warning of future outbreaks and reduce reliance on costly testing of large populations.

#### Coronavirus: why we should end the pandemic ban on reusable cups

Writing for The Conversation Sarah Pitt, Principal Lecturer, Microbiology and Biomedical Science Practice, Fellow of the Institute of Biomedical Science, University of Brighton explores why cafes should lift their reusable cup bans.

### **Animal Research**

#### Taking aim at the 3Rs

Recent articles in the scientific press have questioned whether the 3Rs should be replaced by a broader ethical framework for animal research. In this blog post, Dr Mark Prescott, NC3Rs Director of Policy and Outreach, explains why this could jeopardise the progress already being made.

#### **Government and Parliament**

#### CaSE and Wellcome's new report on making the case for government investment

CaSE and Wellcome have published a new report with Public First as part of their 'R&D Decade' project, looking at how the R&D community can best sustain political and public support for investment.

#### It's time for academic-policy engagement to truly take off

Marking the launch of Capabilities in Academic Policy Engagement (CAPE), Sarah Chaytor and Andy Westwood, writing for Wonkhe make the case for a step-change in academic-policy engagement.

#### Three-year visas for PhD graduates in £300 million UK science plan

New Downing Street unit for attracting global talent and review of immigration rules among measures to support research reported by the Times Higher Education.

# Research funding and higher education policy

#### Regulator bans controversial 'conditional unconditional' offers during pandemic

University offers which only become unconditional once an applicant accepts them as their firm choice will be prohibited until September 2021, under new rules announced by the Office for Students (OfS).

#### International study to examine lottery-based research funding

Grant funders to assess whether randomly picking 'middle-level' research projects for funding is fairer, more efficient and better for science, according to Times Higher Education.

# Schools education policy

#### GCSE and A-level exams in all subjects to be available in autumn

Sally Weale, Education correspondent for the Guardian examines how pupils dissatisfied with results based on predicted grades will be able to sit traditional exams.

#### Schools and colleges to reopen in full in September

Government press release explaining detailed plans that have been unveiled for all children and young people to return to full-time education from September.

## **Diversity and inclusion**

#### Dads in biotech struggle to balance lab life and family life, states Cell Press

Writing for Cell Press, Joe Flanagan describes how family life is changing, and so are the roles that dads play at home and in the workplace.

#### The power of diversity data

A blog on the work of Innovate UK discusses their priorities and activity to tackle under representation in business innovation and understanding of, and engagement with, structures of exclusion.

### **Outreach and engagement**

#### **Hand-washing**

The Animal Research Nexus reports on developing creative viral aesthetics to build confidence in infection prevention strategies.

# **Digital technologies**

#### Robotic scientists will 'speed up discovery'

The BBC describes how scientists at the University of Liverpool have unveiled a robotic colleague that has been working non-stop in their lab throughout lockdown.

#### **How Infrared Images Could Be Part of Your Daily Life**

Reporting for the New York Times, Jonah M. Kessel examines the use of heat sensors in a post-quarantine world.

### International news

#### Coronavirus disease (COVID-19) Situation Dashboard

The World Health Organisation summarises the reported number of confirmed COVID-19 cases and deaths

#### Global heating will make it much harder for tropical plants to germinate, study finds

Temperatures will be too hot for the seeds of one in five plants by the year 2070, Australian researcher says

# **Opinion**

#### Fewer than 20 extinctions a year: does the world need a single target for biodiversity?

A Nature Editorial describing how a proposal for one, simple goal, equivalent to the 2 °C climate target, needs to be thoroughly assessed.

#### This virus isn't going away. The only way to beat it is to work together

Six months on from the first case of COVID-19, the pandemic is accelerating and spreading into new areas. Jeremy Farrar, Director, Wellcome, talks about the lessons we learned and the long-term solutions.

#### Could the response to Covid-19 help build more inclusive learning environments?

We must be careful not to fetishise the old normal, says Raeesah Ellis-Haque, who manages BAME recruitment and engagement in the widening participation team at the University of Bristol.

# People

#### The biodiversity leader who is fighting for nature amid a pandemic

An article in Nature interviews Elizabeth Mrema on leading countries as they negotiate new biodiversity targets.

# **Opportunities**

#### **RSB** outreach activities at online Virtual Lambeth Country Show

Families will now be able to take part in some RSB simple hands-on science activities as part of the <a href="2020">2020</a> Virtual Lambeth Country Show. The show will take place online on 18 -19 July 2020, instead of being in London and will now be an online event for everyone. The <a href="virtual show">virtual show</a> will feature some of our hands-on science activities in addition to the usual music, workshops, competitions and more, all from the comfort of your own home.

#### Royal Society of Biology Photography Competition 2020

'Our changing world' is the theme of this year's Royal Society of Biology Photography Competition. Life on Earth is dynamic and we invite you to capture these transformations. The competition has two age categories each with a cash prize: 18 and over (£1000) and under 18s (£500).

**Closes: 24 July 2020** 

#### The Nancy Rothwell Award 2020

The Nancy Rothwell Award 2020 specimen drawing competition for 7 – 18 year olds is now open for submissions. Prizes include an experience day at the Royal Veterinary College for students, and their school can also win £100. Visit the Royal Society of Biology website for more information.

Closes: 31 July 2020

# Consultations

#### UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks

The Science and Technology Committee will inquire formally into the place of UK research, science and technology in the national and global response to the COVID-19 pandemic, and what lessons should be learned for the future. If you plan to submit evidence, please let us know by emailing consultation@rsb.org.uk.

Closes: 31 July 2020

### Plastic Packaging Tax: policy design

This consultation seeks views on areas of the Plastic Packaging Tax which have been further refined as we move closer to the implementation date of April 2022.

Closes: 20 August 2020

### **England Tree Strategy**

This consultation will inform a new England Tree Strategy. It will focus on expanding, protecting and improving our woodlands, and how trees and woodlands can connect people to nature, support the economy, combat climate change and recover biodiversity.

Closes: 11 September 2020

#### River basin planning: Challenges and Choices

The Environment Agency is holding a consultation to gather views on the challenges our waters face and the choices we all need to make to help tackle those challenges.

Closes: 24 September 2020

#### RSB Policy Resource Library now 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**

#### Science Policy: Improving the Uptake of Research into UK Policy (Virtual)

24 August - 26 August 2020

Wellcome Genome Campus, UK

The third event in this series will bring policy makers and academic researchers together to help break down these barriers, encourage mutual understanding, and ultimately enable improved evidence-based policy making. It will provide early career researchers (PhD students, post-doctoral fellows and early career faculty) with an introduction to policymaking, show them how to engage with policy makers, either by their research being used to influence policy or by moving into a career in science policy. Registrations will close on 17 August 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 <a href="RSB events">RSB events</a> pages. Postponed events will hopefully run in 2021.

We are aware that a number of events previously advertised in the Science Policy Newsletter have been cancelled owing to the novel coronavirus Covid-19. We recommend also checking other external event webpages for updates and continuing to monitor and follow official advice.

# And finally...

### These worm-like amphibians may have venomous saliva

This article describes how toothy worm-like creatures called caecilians have smooth, shiny skin and already look a lot like snakes. Still, scientists were surprised to discover some of these legless animals may have venomous saliva—possibly the first example ever found in amphibians.

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