

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

18 September 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

Top stories

[**The world missed a critical deadline to safeguard biodiversity, UN report says**](#)

A decade ago, United Nations members crafted an agreement to curb the loss of biodiversity. We've failed miserably, but all hope is not lost, according to National Geographic.

[**Expert reaction to Global Biodiversity Outlook 5**](#)

The Science Media Centre has collated several expert opinions on the United Nations report looking at global biodiversity.

[**Government's £40 million Green Recovery Challenge Fund opens for applications**](#)

The Government has announced grants from £50k to £5 million are now available to help the nation build back greener from the coronavirus pandemic.

Royal Society of Biology news

[**RSB responds to inquiry into government plans for new research funding agency for the UK**](#)

The Society has submitted its response to an inquiry by the [Commons Science and Technology Committee](#) into proposals for a new funding body modelled on the US' Advanced Research Projects Agency. The response highlighted the potential for breakthroughs in bioscience, the need for a focus on bringing innovations into use and the importance of international collaboration for UK research and in addressing global challenges. The full response can be found on [our website](#) and in the [RSB's Policy Resource Library](#).

[**Education during COVID-19**](#)

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

[**COVID-19 Bulletin**](#)

For further detail on COVID-19 research, news and updates, RSB has developed a monthly bulletin collating some of the bioscience behind the outbreak and response. The latest edition, published on the 24th of August 2020 covers updates on: education; surveillance; vaccine trials; populations at risk and impacted; investment to research into links between COVID-19 and ethnicity; mental health; viral transmission routes; trust; COVID-19 'long haulers'; calls for innovation, volunteers, evidence; biodiversity loss and disease spillover; and international public health responses. See [our webpages](#) 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.

Health and biomedicine

[**How the Aging Immune System Makes Older People Vulnerable to Covid-19**](#)

As people age, their immune system begins to shift into a heightened state of alert, dialling up inflammation and running out of certain immune cells, according to the New York Times.

[**Scientists relieved as coronavirus vaccine trial restarts — but question lack of transparency**](#)

UK trials of the Oxford and AstraZeneca vaccine have resumed after a brief pause, yet key details of the events involved have not been released, according to this Nature news article.

[**Why a vaccine can provide better immunity than an actual infection**](#)

Writing for the Conversation, Maitreyi Shivkumar, Senior Lecturer in Molecular Biology, De Montfort University, addresses key factors to long-lasting immunity of COVID-19.

Food and drink

[**Post-coronavirus, how can we achieve food justice?**](#)

Horizon asked five food experts and activists what their top priority is for achieving food justice – ensuring that everyone on the planet has access to affordable, sustainable, healthy food.

Agriculture and fisheries

[**Helping the fishing industry transition to independence**](#)

This Government news story describes how the Marine Management Organisation (MMO) is helping fishing and seafood industries to prepare for new trading relationships with the EU and rest of the world.

Forestry

[**Shorter lifespan of faster-growing trees will add to climate crisis, study finds**](#)

Fiona Harvey, environment correspondent for the Guardian summarises a study that indicates a rise in carbon capture as global warming speeds growth of forests would be negated by earlier deaths.

Environment and ecology

[**Wildlife in 'catastrophic decline' due to human destruction, scientists warn**](#)

The BBC reports how wildlife populations have fallen by more than two-thirds in less than 50 years, according to a major report by the conservation group the World Wildlife Fund (WWF).

[**Up to 48 species saved from extinction by conservation efforts, study finds**](#)

The Guardian covers how extinction rates for birds and mammals since 1993 would have been 'three to four times higher' without action.

[**Primates are facing an impending extinction crisis - but we know very little about what will actually protect them**](#)

In this article for the Conversation, Jo Setchell, Professor of Anthropology, Durham University, explores the primate extinction crisis and actions that could be taken to protect them.

[**Amidst hybridisation and habitat disruption, the 'Highland tiger' is clinging on by a claw.**](#)

Conservationists are clashing over the best way to save the critically endangered Scottish wildcat – with some believing the animal's genetic survival is 'no longer viable', says National Geographic.

Using Nature to Find Solutions to Human Problems

Laura Clavey Policy Officer at the British Ecological Society addresses nature-based solutions and provides an overview for how nature-based solutions could help to address climate change.

Climate and energy

Why clouds are the missing piece in the climate change puzzle

An article in the Conversation addresses disparity between climate models and the uncertain behaviour of clouds.

The Arctic is burning like never before — and that's bad news for climate change

Fires are releasing record levels of carbon dioxide, partly because they are burning ancient peatlands that have been a carbon sink, says Nature News.

Waste

Defra forms taskforce to reduce sewage discharge into rivers and seas

The Guardian covers how urgent new measures are being taken to address the scale of untreated sewage leaks into rivers and seas as pressure grows on the water industry and for the Government to act.

Animal Research

'Surrogate sires' could create specially bred livestock, say scientists

Natalie Grover, science correspondent for the Guardian reports trials on mice show how sterile animals can produce sperm deriving from elite breeders.

Research funding and higher education policy

Postdocs in crisis: science cannot risk losing the next generation

This Nature Editorial explores how the pandemic has worsened the plight of postdoctoral researchers and funders arguably need to be offering more than moral support.

Securing the integrity of international research collaborations

This blog on the work of Innovate UK features information on 'Trusted Research', a campaign to raise awareness of the risks to research collaborations which may occur when working with organisations or research partners with links to nations whose democratic and ethical values are different from the UK.

Open access and publication policy

IOP Moves to Universal Double-blind Peer Review: An Interview with Kim Eggleton

The Scholarly Kitchen covers how the Institute of Physics (IOP) recently announced that it will be phasing in double-blind peer review for all of its journals, expecting the process to be complete by the end of 2021.

Dozens of scientific journals have vanished from the internet, and no one preserved them

This article in AAAS Science covers how eighty-four online-only, open-access (OA) journals in the sciences, and nearly 100 more in the social sciences and humanities, have disappeared from the internet over the past 2 decades as publishers stopped maintaining them.

Business and industry

UK must become global leader in tackling climate crisis, says CBI

The Guardian covers how Carolyn Fairbairn, Director of the Confederation of British Industry calls for more green jobs to help the economy recover from Covid-19.

Diversity and inclusion

As a Black zoologist, a BAME network matters

Writing for the British Ecological Society, Reuben Fakoya Brooks speaks powerfully from personal experience about the importance of Black representation in ecology, and introduces a new BAME network to support People of Colour in ecology.

Harassment hotspots should lose research funding, says Solloway

UK science minister hits out at 'spurious' research metrics and 'publish or perish' lab culture, according to the Times Higher Education.

Cancer Projects to Diversify Genetic Research Receive New Grants

The New York Times reports because much cancer research and clinical trials have been based on white populations, efforts to explore the ways race and ethnicity influence disease are underway.

Public Health England launches new Every Mind Matters campaign

The Government announces how Public Health England has launched a mental health campaign supporting the wellbeing of children, young people and their parents.

Ethics

Coronavirus accelerates drive to share health data across borders

Horizon reports on how the willingness of national health agencies and researchers to exchange data across international borders is a crucial element in the fight against Covid-19.

Coronavirus: Pharma firms unveil safety pledge over vaccine

A group of nine vaccine developers has announced a "historic pledge" to uphold scientific and ethical standards in the search for a coronavirus vaccine, observes the BBC.

AI standards launched to help tackle problem of overhyped studies

The Guardian observes how new guidelines aimed at ensuring AI research is of the same quality as that in other fields.

Digital Sequence Information

This POSTnote summarises the legislation, use and definition of digital sequence information (DSI), which refers to the digital biological data in various international negotiations around sharing benefits from the uses of genetic resources.

Among other [RSB Consultation responses](#), you can read the RSB response to Defra's request for views and relevant information on potential implications of the use of Digital Sequence Information (DSI) on genetic resources for the three objectives of the Convention on Biological Diversity (CBD) and for the objective of the Nagoya Protocol on Access and Benefit Sharing (ABS) [here](#).

Outreach and engagement

How to turn your research discovery into an eye-catching piece of cover art

Madeline Dippel, Production Associate at Cell Press explores how a cover-worthy illustration can be created from a research paper.

Digital technologies

£147m investment in Manufacturing Made Smarter

UK Research and Innovation has announced new funding to transform UK manufacturing capabilities through the development and adoption of Industrial Digital Technologies (IDTs).

[**Innovative digital projects that will tackle environmental challenges receive funding**](#)

The Natural Environment Research Council (NERC) has awarded individual grants of up to £1.2 million to seven research projects that will use cutting-edge digital technology to advance environmental outcomes.

International news

[**Coronavirus disease \(COVID-19\) Situation Dashboard**](#)

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

[**In the Amazon, forest degradation is outpacing full deforestation**](#)

Writing for the Conversation, Tommaso Jucker, Research Fellow and Lecturer, School of Biological Sciences, University of Bristol addresses forest degradation within the Amazon and suggests strategies to overcome it.

[**Hummingbird's temperature can fall to 3.3C at night to preserve energy**](#)

The Guardian covers how Researchers in the Andes identified hummingbirds reach body temperatures below that of any non-hibernating mammal and any other bird.

Opinion

[**Neuralink: brain hacking is exceptionally hard, no matter what Elon Musk says**](#)

Writing for the Conversation, Andrew Jackson, Professor of Neural Interfaces, Newcastle University, address brain-machine interfaces and shares views on the most recent project presented by entrepreneur Elon Musk.

[**Heritable human genome editing: the National Academies/Royal Society report**](#)

Writing for Nuffield Council on Bioethics, Peter Mills shares thoughts on the Consensus Study Report of the International Commission on the Clinical Use of Human Germline Genome Editing convened by the US National Academies of Medicine and the Royal Society.

[**'Full force' innovation swing toward emerging economies**](#)

Developing economies are showing 'stellar innovation performance' as the landscape shifts towards Asia, while Sub-Saharan Africa leads global spending on education and investment, according to SciDev.Net.

People

[**Discoverer of neural circuits for parenting wins US\\$3-million Breakthrough Prize**](#)

This Nature news article covers how molecular biologist Catherine Dulac netted one of four big life-sciences awards for discovering the "on-and-off switch" for good parenting in male and female mouse brains.

[**Dr Veronique Miron recognised with Suffrage Science award that celebrates women in STEM**](#)

Dr Veronique Miron, from the Medical Research Council Centre for Reproductive Health at the University of Edinburgh, has been chosen to receive a prestigious award celebrating the achievements of women in STEM.

Committee vacancies

RSB Biology Curriculum Committee vacancy

The Royal Society of Biology's [Biology Curriculum Committee](#) is seeking up to 6 new individuals to join the committee. Chaired by Professor Jeremy Pritchard FRSB, the committee has specific responsibility for developing a comprehensive view of a coherent and cohesive 5-19 biology curriculum. Committee meetings take place approximately 4 times per year and these normally take place at RSB head office in London and occasionally at other University locations. However, more recently, due to Covid-19, meetings have been held remotely. Members of the RSB and our member organisations are invited to apply for the role, and we also welcome applications from those who are not RSB members. We particularly welcome applications from individuals with expertise in the following fields: teachers, employers, medics, veterinarians, environmentalists, pharmacologists, agriculturalists and young working professionals. We are seeking committee members from across all UK nations. We have created a [downloadable guide](#) providing detail on the person specification and job description. For more information and to submit an application, please use our [portal on mySociety](#).

Closes: 16 October 2020

Opportunities

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.

Ecology and Evolution of Infectious Diseases (EEID) Program 2020 – US-UK, China and Israel

The funders wish to encourage high quality, innovative research conducted by transdisciplinary teams of researchers on the ecological, evolutionary, and social drivers that influence the transmission dynamics of infectious diseases of animals, humans and plants. The central theme of submitted projects must be the quantitative or computational understanding of pathogen transmission dynamics. The collaborative proposals must include researchers from the UK and the US and can include researchers from Israel and China.

Closes: 18 November 2020

Consultations

Comprehensive Spending Review 2020

The UK has a well-established budgeting framework, through which a spending review is carried out approximately every 3 years to allocate funding to departments. The Comprehensive Spending Review 2020 will allow the government to consider its priorities across all spending over multiple years. HM Treasury welcomes representations as part of the policy-making process. A Comprehensive Spending Review representation is a written representation that comments on government policy or suggests new policy ideas for the Comprehensive Spending Review. It can be submitted by an interest group, individual or representative body to HM Treasury.

Closes: 24 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

Due diligence on forest risk commodities

The Department for Environment, Food and Rural Affairs is launching this consultation to seek your view on whether the UK Government should introduce a new law designed to prevent forests and other important natural areas from being converted illegally into agricultural land.

Closes: 5 October 2020

Universities and Scotland

The Scottish Affairs Committee has launched an inquiry on the future funding of Scotland's universities and fees for overseas and non-EU students. The Committee will also use this inquiry as an opportunity to examine the impact policies made in Whitehall will have on Scottish Universities, their students, their employees and on research.

Closes: 19 October 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

Visualising how plants and microbes function in sign language

24 September 2020

18:00 – 19:00 BST

Hosted by the British Society for Plant Pathology, the webinar will feature a team from the Scottish Sensory Centre at the University of Edinburgh that will explain how to use British Sign Language to unlock scientific concepts. They will also share the sign development process that the BSL glossary team followed to create new signs for science terminology including terms linking to plants and microbes, whilst adhering to the principles of BSL linguistics. They will demonstrate a group of signs linking to plants and microorganisms. Deadline for registration closes on Monday 21st September 2020.

The Foundation for Science and Technology: The R&D Roadmap - Levelling Up Across the UK

7 October 2020

18:00 – 19:00 BST via Zoom

In July, the Government published the R&D Roadmap, setting out ambitious plans for investing in research and securing the benefits for the economy. A key element of this is the promise of an R&D Place Strategy, designed to unlock local growth and societal benefit across the UK. This webinar will discuss the role that R&D can contribute to the “levelling up” agenda, the inequalities in R&D funding across the different nations and regions of the UK, and how the focus on place fits within the overall R&D Roadmap.

Sanger Seminar Series

The Wellcome Sanger Institute is pleased to launch a series of virtual seminars, showcasing the diversity of genomic research at the Institute aimed at tackling some of the biggest challenges in human health and disease. The virtual seminar series will take place monthly and is freely available and open to all who wish to attend.

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 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...

[Why we don't really know how many lions live in Africa](#)

Counting lions is surprisingly complicated, but a new method promises more accuracy and detail, reports National Geographic.

Royal Society of Biology

Science Policy Team

1 Naoroji Street

London

WC1X 0GB

policy@rsb.org.uk

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1 Naoroji Street, London, WC1X 0GB