

ZSL SCIENCE AND CONSERVATION EVENT

## Time to integrate global climate change and biodiversity science-policy agendas



© Benjamin Jones, Stockholm University

Tuesday 12 October 2021  
6:00pm – 7:30pm UK Time (BST)

Online event livestreamed to [zsl.org/IOZYouTube](https://zsl.org/IOZYouTube)

[Direct link: [https://youtu.be/GVTBv1f7Y\\_w](https://youtu.be/GVTBv1f7Y_w)]

There is no charge for this event, and no need to register in advance

## AGENDA

Professor Nathalie Seddon, University of Oxford

*Promise and pitfalls of nature-based solutions*

Professor Jos Barlow, Lancaster University

*Nature-based solutions for climate change mitigation and biodiversity conservation: An Amazonian perspective*

Matthew Lowton, Zoological Society of London

*Reforming the current institutional set-up to secure a more sustainable future*

Professor William Sutherland CBE, University of Cambridge

*What should an improved world look like?*

Chaired by Dr Nathalie Pettorelli, Institute of Zoology, Zoological Society of London

# ABSTRACTS

## **Promise and pitfalls of nature-based solutions**

*Professor Nathalie Seddon, University of Oxford*

Nature-based solutions (NbS) have recently gained popularity as an integrated approach that can address climate change and biodiversity loss, while supporting economic recovery. Well-designed and properly implemented NbS can deliver multiple benefits for people and biodiversity. However, the limelight is on tree planting for carbon storage. There are serious concerns that this is distracting from the need to rapidly phase out the use of fossil fuels and protect existing intact ecosystems. In this talk, I will outline both the promise and pitfalls of NbS and present recommendations on how to enable NbS to deliver their potential. I will urge policymakers, practitioners and researchers to follow four guiding principles to enable NbS to provide sustainable benefits to society: (1) NbS are not a substitute for the rapid phase-out of fossil fuels; (2) NbS involve a wide range of ecosystems on land and in the sea, not just forests; (3) NbS are designed and implemented by or in close partnership with Indigenous Peoples and local communities in a way that respects their rights; and (4) NbS should be explicitly designed to provide measurable benefits for biodiversity. I will also discuss what is needed by and at the UN climate summit, CoP26, to ensure NbS can be taken to scale.

**Nathalie Seddon** is Professor of Biodiversity at the University of Oxford and Founding Director of the Nature-based Solutions Initiative ([www.naturebasedsolutionsinitiative.org](http://www.naturebasedsolutionsinitiative.org)), an interdisciplinary programme of research, policy advice, and education that enhances understanding of the potential of Nature-based Solutions to address global challenges and supports their implementation worldwide. Nathalie trained as an ecologist at Cambridge University and has over 20 years research experience in a range of ecosystems across the globe. As a University Research Fellow of the Royal Society, she developed broad research interests in understanding the origins and maintenance of biodiversity and its relationship with global change. She is a Senior Associate of the International Institute for Environment and Development and a Senior Fellow of the Oxford Martin School. Nathalie serves on various scientific advisory boards and advises governments, UN agencies and businesses on Nature-based Solutions. She is currently a Friend of CoP26, one of 30 global experts currently advising the UK government on its Presidency of the UNFCCC's climate change conference, CoP26.

---

## **Nature-based solutions for climate change mitigation and biodiversity conservation: An Amazonian perspective**

*Professor Jos Barlow, Lancaster University*

Nature-based solutions have widely recognised potential for addressing climate change and biodiversity conservation. I explore how this could work in practice, using the world's largest tropical forest as a case study. First, I examine why, despite retaining over 80% of the original forest cover, the Amazon needs NbS, examining the likelihood of large-scale dieback and the increasing threats to terrestrial and aquatic ecosystems and the species they contain. Second, I explore where the greatest opportunities for NbS exist, focusing on the role of restoration in improving social and ecological

condition and avoiding tipping points. Finally, I highlight some of the limitations of restoration, and examine some of the key knowledge gaps that remain regarding its effectiveness in tropical forests.

**Jos Barlow** is Professor of conservation science at Lancaster Environment Centre. He has been studying tropical forest biodiversity and carbon balance for over 20 years, and co-founded the Sustainable Amazon Network to develop policy-relevant science in the Brazilian Amazon. He is Executive Editor of *Journal of Applied Ecology*, and a lead author on the UN's Science Panel for the Amazon.

---

## What should an improved world look like?

*Professor William Sutherland CBE, University of Cambridge*

As the world prepares to enter negotiations during the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), what should the priorities be? Existing global strategies and institutional set ups have not halted the speed and scale at which the intertwined climate change and biodiversity crises continue to develop. All governments have failed in meeting any biodiversity targets set over the past two consecutive decades; simultaneously, G20 countries continue to subsidise fossil fuels despite upper limit targets in greenhouse gas emissions set under the Paris Climate Agreement being likely to be surpassed within a few years. With this talk, Bill will offer thoughts on what the vision for the future should be, and how to best realise this vision.

**William Sutherland** holds the Miriam Rothschild Chair in Conservation Biology at the University of Cambridge and is a Professorial Fellow in St Catharine's College. Much of his original research was on applying ecological models to answer applied problems but over the last fifteen years he has focussed on improving the effectiveness of conservation practice especially through embedding evidence in policy and practice. With over a thousand collaborators, the Conservation Evidence team have read 1.5 million paper titles in seventeen languages and reviewed the evidence for the effectiveness of 3155 conservation actions. He was president of the British Ecological Society, is a highly cited researcher, has written over 500 papers, is an author of six books and edited another nine. He was made a CBE in 2021 for Services to evidence-based conservation.

---

*Dr Nathalie Pettorelli, Institute of Zoology, Zoological Society of London*

A Senior Research Fellow at the ZSL Institute of Zoology, **Dr Nathalie Pettorelli's** main research focus is on assessing, predicting and mitigating the impacts of global environmental change on wildlife. A climate change ecologist and rewilding expert, her scientific achievements include demonstrating how satellite data can be used to support vulnerability assessments of species and ecosystems to climate change, to pioneering social media as a source of data for species on the move due to climate change. Nathalie has published several books and over 200 scientific contributions on the topics of biodiversity monitoring, conservation, and wildlife management.

---

## Format of Live Events

- This interactive online event will be livestreamed to our YouTube channel here: [zsl.org/IOZYouTube](https://zsl.org/IOZYouTube). A direct link to the livestream will also be shared on the event web page before the event.
- Before attending this event, please read our Code of Conduct found [here](#).
- This event will run from 6:00pm – 7:30pm, and will be available to watch afterwards on our YouTube channel.
- Each event will comprise of short presentations from experts in the topic, followed by interactive Q&A and panel sessions. Viewers will be encouraged to join the event live and ask questions using an online platform.
- If you wish to submit a question to a speaker prior to the event, please send it to [scientific.events@zsl.org](mailto:scientific.events@zsl.org). Please be aware we may not be able to answer all questions.
- There is no charge for this event, and no need to register in advance.

---

## ZSL Wild Science Podcast

To find out more about this topic ahead of the event, listen to our **brand new ZSL Wild Science podcast episode "ZSL #035: Nature-based solutions - putting nature at the heart of global climate change and biodiversity science-policy agendas"** [here](#), or on your favourite podcast app. Don't forget to **rate** and **review** to help boost us in the charts, and [subscribe](#) on your podcast app so you don't miss any future episodes!

---

## Join our next ZSL Science and Conservation Event

### Remote sensing for savannah species conservation

9 November 2021, 6:00pm – 7:30pm

Monitoring wildlife and the environment is critical for the conservation management of threatened species, including those that live in savannahs. This event will describe how cutting-edge advances in remote sensing and artificial intelligence are enhancing our understanding of species that live in mixed woodland-grassland ecosystems. These non-invasive approaches are revealing population-related, ecological or behavioural issues that affect species, so that targeted conservation measures can be applied.



---

## Further Information

- Please contact the Science Communications and Events Manager, Eleanor Darbey ([eleanor.darbey@zsl.org](mailto:eleanor.darbey@zsl.org)), if you have any queries about our Science events or podcasts.
- For press enquiries, please contact the ZSL Press Office: [press.office@zsl.org](mailto:press.office@zsl.org).
- For more information about how to join the ZSL Fellowship programme and engage with a network of thousands who are shaping the future of conservation, please visit: [www.zsl.org/membership/zsl-fellowship](https://www.zsl.org/membership/zsl-fellowship).
- To receive email updates about forthcoming ZSL Science and Conservation Events, please visit: [www.zsl.org/science/whats-on/science-and-conservation-events-email-updates](https://www.zsl.org/science/whats-on/science-and-conservation-events-email-updates)

- Read the latest blog posts from our scientists and conservationists here: [www.zsl.org/blogs/science](http://www.zsl.org/blogs/science).
- Follow us on Twitter [@ZSLScience](https://twitter.com/ZSLScience) to hear about new publications from our researchers, upcoming events and podcast episode releases.
- Join us on our Facebook page [@ZSLScienceAndConservation](https://www.facebook.com/ZSLScienceAndConservation) for announcements of each event.

To feed and care for our 30,000 animals, many of which are endangered, costs £1million a month and the national lockdown has left us struggling. But with your help we can carry on caring for our amazing animals and continue our global conservation work. Support us today – **Join, visit or donate.**