

ZSL SCIENCE AND CONSERVATION EVENT

Can understanding animal personalities help us to improve conservation?



Tuesday 8 February 2022
6:00pm – 7:30pm UK Time (GMT)

Online event livestreamed to [zsl.org/IOZYouTube](https://www.zsl.org/IOZYouTube)
[Direct link: <https://youtu.be/0JQIN-c58Uc>]

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

AGENDA

Dr Alecia Carter, University College London

A Very Brief Introduction to Animal Personality Research

Dr Félicie Dhellemmes, Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB),
Germany & Bimini Biological Field Station, Bahamas

Captive personality and wild behaviour in sharks: how can personality inform conservation?

Dr Victoria Franks, University of Chester

How can considering individual differences inform reintroductions?

Lewis Rowden, Wildlife Health Services, Zoological Society of London

Application of personality assessment to ex-situ conservation and management

Chaired by Guy Cowlshaw, Institute of Zoology, Zoological Society of London

ABSTRACTS

A Very Brief Introduction to Animal Personality Research

Dr Alecia Carter, Department of Anthropology, University College London

Have you ever filled in a personality questionnaire? Did you find it exciting, or were you anxious about it? Even if you haven't taken one yourself, we all understand that people differ in how they behave, and we use hundreds of words to describe these consistent differences in people's behaviour. Cheerful, decisive, forceful, energetic... But, animal personality? Can a monkey be 'cheerful'? How can you measure animal personality if animals can't fill in questionnaires? And does it mean anything? In this talk, I'm going to try to answer some of these questions. I will go through a very brief history of animal personality research, starting with psychologists' approaches to measuring primates' personalities from the middle of last century, to more recent work by behavioural ecologists measuring animal personality in species from anemones to great tits. I will discuss the pros and cons of the different approaches to measuring animal personality. Finally, I will address the bigger question about whether animal personality matters, using examples from my own research on social learning in wild baboons, to other's research showing the impacts of personality on animal wellbeing and reproductive success.

Alecia Carter is a lecturer in Evolutionary Anthropology in the Department of Anthropology, University College London, UK. Her research focusses on the behaviour and cognition of wild animals, most frequently using baboons to answer her research questions. Her PhD research addressed how and why animals' behaviour varies from others but is consistent through time. Dr Carter now investigates how primates respond to the deaths of others and what this can tell us about the evolution of cognition and emotion, and how animals' social networks and individual characteristics determine how they access information to make decisions.

Captive personality and wild behaviour in sharks: how can personality inform conservation?

Dr Félicie Dhellemmes, Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Germany & Bimini Biological Field Station, Bahamas

Understanding how personality impacts the life of wild animals is a crucial step to using it as a tool for conservation. Unfortunately, studying animal personality is subjected to many methodological constraints. For example, to assess personality, one needs to repeatedly measure the behaviour of (many) individually identifiable members of a species in standard settings. And so, captive-only experiments on species that can be found abundantly, and that are easily kept in captivity (small birds or small fish for example), have been overwhelmingly favoured in this research field, creating a lack in our understanding of the consequences of personality in wild animals. Between 2012 and 2018 we captured 368 wild juvenile lemon sharks (*Negaprion brevirotris*) in Bimini Bahamas, and temporarily housed them in captivity to assess their personality. We then released them and used an array of technologies to see how captive personality was related to their wild 1) risk taking behaviour, 2) foraging strategies, 3) growth and 4) chances of survival. We simultaneously recorded the size of the

juvenile lemon shark population (which allows us to estimate how much sharks have to compete for resources) and the number of predators (i.e. larger sharks) to see if and how these ecological stressors impacted link between captive personality and wild behaviour.

Lemon sharks are gorgeous yellowish predators the inhabit the coastal waters of the American continent. They are one of **Dr. Félicie Dhellemmes'** obsession, along with horses, bicycles, boats, and white pizza. She started her scientific career in Bimini, Bahamas in 2013, testing the meaning of the famous personality test "novel-open field" on juvenile lemon sharks. This endeavour soon transformed into a PhD project which she carried on from 2015 to 2020. She recently graduated and now work son the spatial behaviour of pike in the Baltic Sea.

How can considering individual differences inform reintroductions?

Dr Victoria Franks, University of Chester

Reintroductions (returning species to parts of their range where they have become extinct) are a vital conservation tool, and yet represent very challenging events for the animals involved. Determining the factors that contribute to whether individuals survive may help us predict which individual animals will cope better with the reintroduction process, and consequently understand what leads a reintroduced population to either succeed or fail. Therefore, we can ask (1) do animals show differences in behavioural traits during reintroduction, (2) do these traits remain consistent across reintroductions, and (3) can individual differences affect reintroduction outcomes? In my talk, I will use case studies from the recovery programme for wild hihi (a threatened New Zealand passerine) to discuss the effect of individual differences on animal dispersal and survival, which are two key processes during population establishment following reintroduction. I will highlight how proactive individuals show greater dispersal patterns in an establishing population, and how recording differences in another behavioural trait (sociality) before and after reintroduction can help us understand the changes that animals experience and their consequences for survival. Together, these examples will demonstrate how we can incorporate tests for individual differences into reintroductions, and how these tests can help us understand the outcomes of reintroduction by uncovering the responses of individual animals to these conservation interventions.

Dr Victoria Franks is a behavioural ecologist who is interested in understanding how animal's behavioural responses to changing environments can help better inform their conservation. During her PhD (2014-2019, University of Cambridge/Zoological Society of London), she explored the importance of early-life social experiences for behaviour and conservation in threatened hihi. She has continued to work with hihi since her PhD, and she is currently collaborating with ZSL to understand factors which impact on their reintroduction outcomes. She is also currently a lecturer in Animal Behaviour at the University of Chester.

Application of personality assessment to ex-situ conservation and management

Lewis Rowden, Wildlife Health Services, Zoological Society of London

The study of animal behaviour in zoos is a relatively established practice, but more recently the specific investigation of personality in zoo-housed animals has increased in occurrence. As well as providing context of this evolving field of study through examples of work carried out in zoos across the globe, this talk will present the results of several personality-related research projects associated with ZSL's Zoos and explain how their application can benefit the care and conservation of managed populations of wild animals. With examples from mammalian and invertebrate taxa it is hoped that the value of these studies will be well defined, but also ways to maximise and develop their future impact to ex-situ conservation.

Lewis Rowden is Zoo Research Officer for ZSL, working within the Evidence-based Animal Care (EAC) Team across both London and Whipsnade Zoos to apply scientific principles that inform care and conservation associated with zoo activity. He is also a PhD student in behavioural neuroscience at the Sainsbury Wellcome Centre (UCL). With a background as a zookeeper and a Research Masters focussing on primate personality, he is interested in how the study of this behavioural science (amongst other fields) can be applied to the conservation and care of zoo-housed species.

Format of Live Events

- This interactive online event will be livestreamed to our YouTube channel here: 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. 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.

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Join our next ZSL Science and Conservation Event

The IUCN Green Status of Species: how to thrive not just survive

8 March 2022, 6:00pm – 7:30pm

The International Union for Conservation of Nature (IUCN) [Red List of Threatened Species](#) stands as the most widely established method for understanding which, and where, species are at risk of extinction. This event will introduce the IUCN's new [Green Status of Species](#), a new part of the Red List introduced in the summer of 2021, that provides a tool for assessing species recovery and the impact of conservation efforts. It will explore examples of the application of this new tool to species around the world, and highlight how it can also play an important role in helping frame and set ambitious recovery targets.



Further Information

- Please contact the Science Communications and Events Manager, Eleanor Darbey (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.
- For more information about how to join as a ZSL Fellow from only £48 and enjoy a year of wonderful wildlife, live from our Zoos, field programmes and scientists – bringing you closer to our global conservation and world leading science – please visit: www.zsl.org/membership/zsl-fellowship.
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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.**