Turning points for wildlife: the choices that shape species survival

16th and 17th November 2026



ZSL 200 YEARS OF WILDLIFE

Welcome

to ZSL's Bicentenary Symposium

Conservationists are no strangers to complex decisions, especially for species on the very edge of extinction.

ZSL was established in 1826 as a Society for members interested in the natural world. This year, we celebrate an extraordinary milestone: 200 years of ZSL.

As the world's oldest scientific zoo, we are delighted to welcome you to our Bicentenary Symposium, Turning Points for Wildlife, to celebrate 200 years of pioneering science, global conservation, and inspiring connections between people and wildlife.

At ZSL we promote the value and role of science in the modern zoo. Utilising taxonomic curators, clinical vets, pathologists, researchers, conservationists and keepers.

At the most critical moments, where complex decisions surrounding rescue of the most threatened species are abundant, there are different pathways to consider, including bringing the last remaining individuals into carefully managed ex-situ programmes. These complex decisions involve weighing biological, ecological and genetic factors alongside socioeconomic, cultural, ethical and legal considerations. They demand balancing the risks and opportunities of in-situ versus ex-situ management.

This symposium will explore how the conservation community can approach these pivotal decisions with courage, care and collaboration - ensuring that, wherever possible, today's difficult choices give the most threatened species a real chance at tomorrow.

For queries please contact scientific.events@zsl.org

Information

Sustainability

At ZSL, we strive to employ the most environmentally friendly and sustainable practices possible. We strive to incorporate sustainable practices into our daily activities. More information regarding ZSL's goals pertaining to sustainability may be found here. We have made this booklet available in electronic format. A small number of printed copies will be available at the meeting, available on request, however we encourage guests to use the digital version where possible, so lease download this booklet onto your devices and refer to the e-copy. We will provide all registered delegates with a name badge and holder. Please return these holders to the conference staff at the end of the meeting and they can then be reused for future meetings. We thank you for your cooperation towards making this event a sustainable meeting.

Food & Drink

Lunch and refreshments will be provided across both days of the symposium, and any dietary requirements that were included in your initial booking will be catered for. If possible, we encourage guests to bring a reusable coffee cup to limit use of vegware provided. Please contact scientific.events@zsl.org if you wish to discuss any dietary requirements.

Photography and Videography

Presentations will be streamed live on the day to allow access for those unable to travel to London, and others otherwise unable to make it in person owing to certain constraints. Filming of presentations is not permitted, but recordings of talks will be made available after the conference to all attendees. As always, please refrain from using flash photography at any point during live conference-related events. We respect the fact that many delegates will want to take photographs of presenters and their slides to post these on social media. Please do so with due respect and consideration. We suggest that presenters clearly highlight anything in their talk or poster that they would prefer people not to take photos of or post about.

Social Media

We encourage delegates to use the following ZSL-specific hashtags and handles when posting or sharing about the meeting.

#ZSLst200
@OfficialZSL
@ZSLScience
@zslofficial.bsky.social

Travel Information



The conference will be held in the Huxley lecture theatre at ZSL London Zoo. The entrance is located on the Outer Circle, between the ZSL Main Offices (Green ZSL Signpost) and the Nuffield Building (Institute of Zoology).

TUBE:

Camden Town (0.8 miles)

The nearest Underground station to the Zoo (Northern Line). Once out of the station, the route will take you along Camden Parkway and past the canal.

Chalk Farm (0.9 miles)

(Northern Line) is an Edgeware line alternative to Camden Town station, approximately the same walking distance from the Zoo.

This station has lift access.

Baker Street (1.1 miles)

Around a 20 minute walk. Serviced by the Bakerloo, Circle, Metropolitan and Hammersmith & City Lines via Regent's Park. Also Serviced via 274 bus northbound.

Regent's Park (1.2 miles)

The Zoo is an easy walk from Regent's Park station (Bakerloo Line). Once out of the station, cross Marylebone Road and follow the signposts. You can take the 88 bus northbound from nearby Albany Street to halve the walking distance.



OVERGROUND:

Camden Road station (1 mile)

London Overground makes travel to the Zoo easy from southwest, north and northeast London. A 20 min walk to the zoo from Camden Road station, or alternatively catch the 274 bus towards Camden Town.

NATIONAL RAIL:

Euston (Avanti West Coast, London Northwestern Railway or London Overground). If arriving at Euston, the fastest route is to transfer to the Northern Line for Camden Town or Chalk Farm.

Marylebone (Chiltern Trains) From the main entrance of Marylebone Station walk left to Baker Street then follow Baker Street tube walking directions, or take the 274 bus northbound.

CYCLING:

Cycling to the Zoo is easy. We have a public bike shed located at the **East Service Gate**. There are also two TfL Barclays Cycle Hire scheme docking stations, one of which is in the small car park opposite the main Zoo entrance.



BUS ROUTES:

88 Northbound: towards Kentish Town. Alight on Albany Street at Prince Albert Road.

88 Southbound: towards Great Portland Street. Disembark at Albany Street, Regent's Park Barracks.

274 Northbound/Southbound: Get off at Prince Albert Road, then cross the bridge to ZSL London Zoo.

DRIVING:

The most sustainable routes to the zoo are by public transport. If travel by car is necessary, the post code for parking is NW1 4SX. Parking will incur a daily charge. **Disabled parking is available in front of the main Zoo entrance and in the main car park.**

Schedule Day 1:

09:30	**Welcome** **Kathryn England, CEO, ZSL**
09:40	**Plenary** **Prof Irus Braverman, State University of New York at Buffalo**
10:15	Session 1: Ecological Stories from the Edge Session chair: Fiona Sach, ZSL
10:20	Dr Donal Smith, RSPB, Turning points towards many paths: loss and recovery in small populations.
10:35	Dr Omar Dominguez Dominguez, UMSNH, From the Wild to Captivity, and Back Again: A Conservation Journey
10:50	Dr Caroline Lees, CPSG, Something old, something new, something burrowing, something blue: tales from the successful marriage of in situ and ex situ conservation
11:05	Prof Jim Groombridge, DICE, University of Kent, Opportunity lost – too little too late for Hawaiian Po'ouli
11:20	**BREAK**
11:55	Session 2: Social Science Session chair: Dr Beth Smith, ZSL
12:00	Prof George Holmes, University of Leeds, Values, layers and the right kind of translocations and ex-situ conservation?
12:20	Prof Samantha Ward, Nottingham Trent University, The ethics and welfare considerations of ex-situ conservation
12:40	Dr Laura Perry, IUCN SSC CEC Behaviour Change Task Force, Living with What's Missing: Coexistence, Conflict, and Connection for Species Rescue and Recovery
13:00	**LUNCH**
14:00	Session 3: Indigenous people and species rescue Session chair: Prof John Ewen, Institute of Zoology, ZSL
14:05	Jeff Quitugua, Guam Department of Agriculture, Our Island, Our Heritage: The Cultural Significance of Guam's Biodiversity
14:25	Bret Nainoa Mossman, Department of Land and Natural Resources, Hawaii, Pilina Manu - our living relationship to birds
14:45	Hélène Duran, Fare Natura, and Paul Pearce-Kelly, ZSL, Bringing Partula Home: From Species Rescue to Local Stewardship
15:05	**Films from around the globe**
15:35	**Closing words** **Tony Juniper, Natural England**
15:55	**Drinks reception, art & expression exhibition**
17:30	**DAY 1 END**

Schedule Day 2:

09:45	**Introduction to Day 2** **Prof John Ewen, ZSL**
09:55	**Welcoming words** **Vivek Menon, Founder Trustee & Executive Director, Wildlife Trust of India and Chair, Species Survival Commission**
10:05	Session 4: Policy and Politics Session chair: Dr Axel Moehrenschlager, Panthera
10:10	Cara Martel, FAZA and Re:wild, After the plan: Navigating species recovery through policy and partnership
10:30	Dr Topis Contreras MacBeath, UAEM, Networking to achieve better conservation results
10:50	Mike Hoffmann, ZSL, Allaying the Agony of Choice? Using the Red List and the Green Status of Species to inform decisions for species recovery
11:10	Barney Long, Re:wild, Impacts of policy and politics on recovery actions
11:30	**BREAK**
12:00	Session 5: New Boundaries Session chair: Cara Martel
12:05	Dr Axel Moehrenschlager, Panthera, Moving species or genes where they have never been for conservation
12:20	Dr Alex Ball, RZSS, Using genetics to support European wildcat restoration
12:35	Dr Matthew Wylie, New Zealand Institute for Bioeconomy Science, Indigenous-Led Pathways: New Boundaries in Fish Conservation Biotechnology
12:50	Rachel Jones, ZSL, Rescue, recovery and bio-banking: tough decisions in coral conservation
13:05	**Film: Rescuing the Chagos brain coral**
13:20	**LUNCH**
14:30	Session 6: Decision Science Session chair: Prof John Ewen, ZSL
14:35	Dr Stefano Canessa, Universitat Bern, Structured approaches to deal with uncertainty and risk in rescue decisions for endangered species
14:55	Dr Eben Paxton, US Geological Survey, Difficult decisions in a wicked world: optimizing conservation strategies to minimize extinction risk
15:15	Jonathan Wilcken, Amphibian Ark, Who Gets the Ark? Prioritising Amphibians for Emergency Rescue
15:35	Caitlin Andrews, The Nature Conservancy, Rapid risk assessment for an emerging translocation threat
15:55	**Closing words** **Dr Andrew Terry, ZSL**
16:05	**Symposium end**

Abstracts and biographies



DAY 1

PLENARY

Prof Irus Braverman, State University of New York at Buffalo

Irus Braverman is SUNY distinguished professor, Teresa A. Miller professor of law, adjunct professor of geography, and research professor at the Department of Research and Sustainability at the University at Buffalo, The State University of New York. Her books include Zooland: The Institution of Captivity (2012), Wild Life: The Institution of Nature (2015), Coral Whisperers: Scientists on the Brink (2018), Zoo Veterinarians: Governing Care on a Diseased Planet (2020), and Settling Nature: The Conservation Regime in Palestine-Israel (2023). She is currently a fellow at the Radcliffe Institute at Harvard University.

SESSION 1: Ecological Stories from the Edge | Chair: Fiona Sach, Zoo Conservation Impact Manager, ZSL

Turning points towards many paths: loss and recovery in small populations.

Dr Donal Smith, RSPB

Donal Smith is a conservation scientist working with the RSPB focusing on the restoration of island ecosystems. He started his conservation journey working on threatened bird recovery projects such as the echo parakeet and pink pigeon in Mauritius, and the hihi in New Zealand. He went on to research global patterns in conservation of small populations and Extinct in the Wild species here at ZSL's Institute of Zoology.

When a species declines to just tens of individuals, how realistic are conservation goals of extinction avoidance and population recovery? Can they be reached without taking species into captivity? Famous "back from the brink" stories of dramatic recoveries offer hope, but their representativeness is unclear. This talk will examine the lessons emerging from the trajectories of all bird and mammal species thought to have been below 50 individuals in the wild at some point since 1950, encompassing extinction as well as population recovery. We chart when conservationists have tried and succeeded, tried and failed, or failed to try. The findings offer a sobering reminder of an ongoing extinction crisis, but also highlight the potential for recovery, particularly in the presence of direct conservation intervention. Ex situ care has been central in these efforts, but it comes in many different shades: from brief protective holding to multi-generation breeding programs founded by last-ditch rescues, as well as accidental arks whose initial founders were not gathered with conservation in mind. Captivity alone cannot address the drivers of wild decline, and species that recovered after ex situ care almost always also received direct in situ action. Crucially, over a third of recoveries did not route through captivity at all. Some of the most dramatic rebounds, from below 50 to the thousands, followed solely in situ measures such as predator control, habitat restoration and translocation. Ex situ care is one tool in a varied and continuously developing toolkit: rarely sufficient, not always necessary, and perhaps most powerful as one strand of an integrated response, chosen early and deliberately rather than as a last resort. Across the dataset, the clearest dividing line was not captive versus wild, but acting versus not acting. We can be thankful that, over the past 75 years, many dedicated conservationists chose the former.

From the Wild to Captivity, and Back Again: A Conservation Journey

Dr Omar Dominguez Dominguez, Universidad Michoacana de San Nicolás de Hidalgo

Omar Domínguez Domínguez earned his degree in Biology from the Universidad Michoacana de San Nicolás de Hidalgo (UMSNH), subsequently completing MSc and PhD studies at the Universidad Nacional Autónoma de México, the Museo Nacional de Ciencias Naturales in Spain, and the University of Toronto, Canada. He is currently a Research Professor at the Faculty of Biology, UMSNH. His research focuses on evolutionary biology, biogeography, systematics, and the conservation of fishes and freshwater ecosystems. He has authored more than 160 peer-reviewed scientific articles and supervised 66 undergraduate and graduate students. His taxonomic contributions include the discovery and description of 16 fish species from Mexico and other parts of Latin America. He leads several research and conservation initiatives aimed at the recovery and reintroduction of fish species facing severe conservation threats including the Fish Ark Mexico Project. He is a member of the IUCN Freshwater Fish Specialist Group and serves as a scientific advisor to several Natural Protected Areas and conservation organizations.

Freshwater ecosystems account for only 0.01% of the Earth's water supply and cover approximately 0.8% of its surface. Despite their limited extent, they provide essential ecosystem services and are fundamental to sustaining human life. Over the past 50 years, freshwater vertebrate populations have declined by more than 80%, twice the rate of decline recorded in marine and terrestrial ecosystems. Freshwater ecosystems in Central Mexico constitute an important center of freshwater biodiversity, supporting approximately 100 fish species, with nearly 70% endemic to the region. However, Central Mexico is also home to 73% of Mexico's human population yet contains only 20% of the country's surface water and has few protected natural areas specifically designated for freshwater conservation. Consequently, aquatic ecosystems in the region are severely affected by human activities, with numerous freshwater fish species threatened with extinction or Extinct in the Wild. In response to this conservation crisis, Fish Ark México was established as an emergency initiative to create an ex situ germplasm bank and safeguard freshwater fish species of the family Goodeidae from extinction. Fish Ark México currently safeguards 39 fish species, including four Extinct in the Wild, and two rescued through the efforts of aquariums and zoological institutions. Among them, Zoogoneticus tequila was successfully reintroduced into its natural habitat in 2016 following an eight-year conservation program; increasing ex situ population sizes, acquiring basic biological and ecological knowledge of the species, investigating the causes of its extinction in the wild, assessing habitat quality at potential reintroduction sites, and modeling different scenarios of biological interactions. The program also incorporated an environmental education initiative designed to engage and empower local stakeholders, fostering their participation in the long-term conservation of the species. Today, Z. tequila maintains stable populations in its natural habitat, while the local “Guardianes del Río” community group taking responsibility for monitoring and conserving the species in the region. Additionally, we are implementing habitat restoration and improvement projects where populations of endangered freshwater fishes persist, aiming ensuring long-term survival in the wild.

Something old, something new, something burrowing, something blue: tales from the successful marriage of in situ and ex situ conservation

Dr Caroline Lees, IUCN SSC Conservation Planning Specialist Group

Dr Caroline Lees is the Chair of the IUCN SSC Conservation Planning Specialist Group (CPSG). She has worked for CPSG since 2011 as a workshop facilitator and wildlife population modeller, supporting diverse groups of people to plan threatened species recovery. Previously, she worked with zoos in the UK and Australasia to enhance the sustainability and conservation-relevance of ex situ wildlife populations. At CPSG she continues to work on projects that unite in situ and ex situ recovery towards better outcomes for species, using CPSG's "One Plan Approach". Caroline also leads CPSG's evaluation programme, quantifying the impacts of science-based planning on threatened wildlife.

Ex situ programmes for threatened species are typically planned separately from work in the wild, often by different groups of people with different goals, timelines and measures of success. The IUCN's One Plan Approach advocates integrated planning, in which all those responsible for a species, inside and outside its natural range, plan together to build programmes of work that capitalize on the complementary strengths of these different wildlife management practices. This planning approach, practiced by the IUCN SSC CPSG for more than 45 years, has been a valuable turning point for many threatened species. In a recent retrospective study of 45 species plans built this way, in 23 countries, no species went extinct, while counterfactual modelling predicted eight might otherwise have been lost. This presentation describes typical applications of the One Plan Approach, how it works and when it is most useful. Four Australian species are used for illustration: the ancient, elusive Plains-wanderer shows how ex situ management can support novel in situ management trials, through a programme designed a decade ago and now bearing fruit. Recent Swift Parrot planning demonstrates the value to decision makers of early, forensic, conversations about what success, and failure, could look like. The burrowing Greater Bilby shows how a zoo-based source population, fenced sanctuaries and Indigenous ranger groups are working together as a single programme and the Christmas Island Blue-tailed Skink, now Extinct in the Wild, demonstrates innovative approaches to insurance and tests definitions of recovery.

Opportunity lost – too little too late for Hawaiian Po'ouli

Prof Jim Groombridge, DICE, University of Kent

Professor Jim Groombridge has been involved with recovery of critically endangered species for over 35 years, including endemic island birds in Mauritius, Hawaii and Seychelles as well as big cats in Malaysia, Bangladesh and Oman. Jim's longest-running involvement has been with the Mauritius kestrel, pink pigeon and echo parakeet programmes on Mauritius. There, he focused his PhD on the genetics of these bottlenecked species, before he moved to Hawaii where he led the Maui Forest Bird Recovery Project from 2002-2002 and the translocation of the Po'ouli. Jim then moved in 2003 to DICE at the University of Kent where he set up DICE's Conservation Genetics lab and today his research group collaborates with NGOs and Governments worldwide to help guide recovery efforts for threatened species.

Abstract overleaf.

The Po'ouli, an Hawaiian honeycreeper endemic to Maui, was considered to be the World's rarest bird in 2000 when only three individuals were known to exist in the wild and none in captivity. Discovered in 1973, this extremely elusive honeycreeper is one of the few Hawaiian forest birds to feed on Succineid snails. Only a single nest was ever recorded, in 1986. Despite ongoing fencing and habitat restoration efforts, the population declined due to habitat degradation by introduced feral pigs and other invasive species. With time running out and little biological and reproductive information to go on, a decision was made in the late 1990s to attempt a wild translocation of one of the three birds into the home range of what was considered to be the only known male, to initiate breeding in the wild. One of the two individuals thought to be female was successfully translocated, radio-tagged and released in April 2002, at dusk at the last known location of the male that day. However, the next day the translocated bird returned to its own home range where its daily movements were subsequently monitored for ten days. Following the failed attempt to initiate breeding in the wild, the decision was made to capture the remaining birds and bring them into captivity for captive-breeding. The other of the two birds considered to be female was finally caught in September 2004 and was successfully maintained briefly in captivity until November 2004 when it was diagnosed with avian malaria and died. Despite numerous survey efforts, neither of the remaining two birds were seen again and the Po'ouli was declared extinct in 2019. The story of the Po'ouli stands as a lesson of 'too little too late', and acts as a lasting reminder to conservation scientists of the need to act before it is too late.

SESSION 2: Social Science | Chair: Dr Beth Smith, Postdoctoral Research Assistant, Institute of Zoology, ZSL

Values, layers and the right kind of translocations and ex-situ conservation?
Prof George Holmes, University of Leeds

George Holmes is Professor of Conservation and Society at the University of Leeds, researching the politics of the conservation movement, and its relationships with communities living in and around conservation projects. His recent work has focused on rewilding, conservation translocations, and related ideas. He is a member of the England Species Reintroductions Taskforce.

We may need to rethink our approach to values in translocations and ex-situ conservation. Firstly, the challenges of the Anthropocene are disrupting policies based on easy ideas of what belongs where. Secondly, there is growing recognition of the value of ex-situ and translocated species beyond their phenotype and genotype, including their role in ecosystems and human systems. This may require us to think about value systems and approaches in conservation, particularly relating to fixed definitions. One alternative approach might come from developments in heritage conservation, where some have been advocating moving away from heritage conservation as preserving objects as static beings in perpetuity, and moving towards thinking about the future heritage we want to create, about dynamic, evolving relationships and values. These ideas fundamentally challenge many aspects of contemporary conservation.

The ethics and welfare considerations of ex-situ conservation

Prof Samantha Ward, Nottingham Trent University

Professor Samantha Ward is Professor of Zoo Animal Welfare and Legislation at Nottingham Trent University, with a career spanning zookeeping, zoo management, research, teaching and policy development. Her work focuses on understanding and improving animal welfare in zoological collections through behavioural assessment, welfare evaluation and evidence-based management. Samantha's research explores human-animal interactions, welfare assessment methodologies and the ethical challenges of keeping and managing wildlife under human care. She is the author of The Zoo Review: A Field Guide for Good Progressive Zoos and is widely recognised for bridging scientific research, practical zoo management and animal welfare policy to inform progressive conservation practice.

Modern zoos and conservation breeding programmes are increasingly expected to deliver positive outcomes for both species' conservation and individual animal welfare. Yet ex-situ conservation raises important ethical questions. How do we balance the needs of populations against those of individual animals? When are interventions justified in the pursuit of conservation goals? And how can welfare science inform these decisions? This talk will consider some of the ethical dilemmas faced by modern zoos, including conservation breeding, animal transfers, population management, human-animal interactions and the role of animals as ambassadors for conservation. Through these examples, it will argue that conservation success should not be judged solely by species-level outcomes, but also by the quality of life experienced by individual animals under human care. As the global biodiversity crisis intensifies, ex-situ conservation is likely to play an increasingly important role in species survival. Ensuring that such efforts are both ethically defensible and welfare-focused will be critical if zoos are to retain public trust and fulfil their responsibilities to wildlife in the next century of conservation.

Living with What's Missing: Coexistence, Conflict, and Connection for Species Rescue and Recovery

Dr Laura Perry, IUCN SSC CEC Behaviour Change Task Force

Dr Laura Perry is a conservation social scientist specialising in the human dimensions of wildlife and evidence-based behaviour change. Her focus is on finding equitable, sustainable, and mutually beneficial ways for people to live alongside nature, particularly in cases of human-wildlife conflict. With a doctorate in Zoology from WildCRU, at the University of Oxford, and over ten years of experience, she works with conservation organisations around the world to integrate an applied understanding of human behaviour, conflict resolution, and social indicators into their conservation efforts. She is a member of the IUCN Behaviour Change Task Force, and the Human-Wildlife Conflict and Coexistence Specialist Group, as well as being a resident social scientist for the Primate Specialist Group, and International Whaling Commission's Bycatch Mitigation Expert panel.

Abstract overleaf.

How do we encourage people to coexist with wildlife, when the wildlife isn't there? We must seek to understand what species rescue and recovery efforts look like from the perspective of communities who live(d) alongside the wildlife in question, focussing on three core dimensions. Firstly, the implicit assumption in species rescue is that one day it will be possible to reintroduce species to the wild. Ensuring that people live their day-to-day lives in ways which will later be compatible with reintroduction – whether that is preserving or restoring forest, controlling invasive species, or maintaining predator-safe livestock management practices – is vital. Supporting the maintenance or adoption of coexistence behaviours is an essential part of preparing the landscape for eventual recovery. Second, navigating the social landscape regarding species rescue is hugely sensitive, and has significant potential for conflict between conservationists and traditional wildlife custodians. Understanding these sensitivities, and developing mediative approaches rooted in conflict resolution and peacebuilding to codesign programmes which incorporate community concerns about the rescue process, whilst also allowing for conservation actors to take drastic steps if needed, is an important part of achieving successful species rescue. Finally, how do you encourage communities to maintain a connection with their local wildlife, when that wildlife is no longer local? Understanding how to preserve these connections, such that people's sense of ownership and relationship with wildlife is supported even when the species is many thousands of miles away is critical to ensure that rescue efforts do not dislocate people from nature. Honouring age-old relationships between people and wildlife, such that the communities who bear the eventual responsibility for species maintain their pride and ownership in them, is the final piece in the puzzle of thoughtful rescue efforts which acknowledge the relationships between people and nature, and work to strengthen them into the future.

SESSION 3: Indigenous people and species rescue | Chair: Prof John Ewen, Institute of Zoology, ZSL

Our Island, Our Heritage: The Cultural Significance of Guam's Biodiversity
Jeff Quitugua, Guam Department of Agriculture

Jeff Quitugua is a native-born CHamoru from the island of Guam. Raised by his maternal grandmother, Jeff grew up immersed in the cultural practices, traditions, and beliefs passed down through generations. From an early age, he learned the cultural significance of Guam's unique biodiversity, including not only the CHamoru names of native species but also their importance and value to the CHamoru people. Grounded in this cultural knowledge and connection to his homeland, Jeff began his career as a wildlife biologist with the Guam Department of Agriculture, working to support the recovery of Guam's endangered birds and fruit bat while pursuing his bachelor's degree. Today, as Assistant Chief at the Department, he continues to dedicate his work to the conservation and recovery of Guam's native wildlife. He is also a proud member of the Guam Sihek Recovery Team, contributing to efforts to recover the sihek and preserve Guam's natural heritage for future generations.

Abstract overleaf.

Guam's biodiversity represents more than the island's natural wealth; it is an integral part of CHamoru cultural identity, traditional knowledge, and heritage passed down through generations. This presentation explores the interconnectedness of Guam's native species, ecosystems, and CHamoru cultural values, emphasizing the importance of preserving both biological diversity and the knowledge that gives it cultural meaning. Drawing from personal experiences growing up CHamoru on Guam and learning traditional practices and beliefs from his maternal grandmother, Jeff Quitugua shares how early exposure to the island's native species fostered an appreciation for their ecological roles and cultural significance. The presentation highlights Guam's unique terrestrial and marine ecosystems and examines the importance of native wildlife, including the fanihi (Mariana fruit bat) and sihek (Guam kingfisher), as part of the island's natural heritage. The discussion also addresses threats to Guam's biodiversity, including invasive species, habitat loss, and other environmental pressures that challenge the survival of native wildlife. Through examples from wildlife conservation and the Guam Sihek Recovery Team, the presentation illustrates how scientific research, traditional ecological knowledge, and community engagement can complement one another in advancing conservation and resource management efforts. Ultimately, this presentation emphasizes that protecting Guam's biodiversity is also an investment in cultural continuity and future generations. By strengthening connections between cultural knowledge, environmental stewardship, and conservation science, Guam's people can help ensure that the island's unique natural resources and cultural heritage remain valued, understood, and protected for generations to come.

Pilina Manu - our living relationship to birds

Bret Nainoa Mossman, Department of Land and Natural Resources, Hawaii

Bret Nainoa Mossman is the Forest Bird Recovery Coordinator for the Hawai‘i Division of Forestry and Wildlife Department of Land and Natural Resources. He specializes in native Hawaiian forest birds, but engages in a wide variety of resource management. Bret has an undergraduate degree in wildlife ecology and management from Utah State University and a masters' degree in Tropical Conservation Biology and Environmental Science from the University of Hawai‘i at Hilo, where he studied ‘Akiapōlā‘au. Bret has family ties to East Maui from the ‘Ahupua‘a of Nu‘u, on O‘ahu from Hau‘ula, and from Kīlauea, Kaua‘i. Bret currently calls Waimea on Hawai‘i Island home but works across the Hawaiian Islands to protect and preserve imperilled forest birds.

Hawai‘i's native birds face an extinction crisis that demands urgent choices about captive care, translocation, and protection in the wild. For Native Hawaiians, these decisions affect living relationships connecting birds, people, ancestral places, language, and cultural practice. Pilina manu explores species rescue through an ‘Ōiwi perspective, grounded in relationships with birds. Drawing on Hawaiian forest bird conservation, it considers how cultural responsibilities and ecological knowledge can guide when to intervene, which risks to accept, and what recovery should achieve. Moving birds may prevent extinction while changing their connections to home landscapes and communities. How can these relationships endure when birds can no longer safely remain in their ancestral habitats? By examining the consequences of both intervention and inaction, this talk considers how Native Hawaiian participation can shape rescue and recovery that sustain species alongside their connections to people and place.

Bringing Partula Home: From Species Rescue to Local Stewardship

***H*élène Duran, Te Fare Natura Ecomuseum** and **Paul Pearce-Kelly, ZSL**

Hélène Duran is the Director of Te Fare Natura Ecomuseum in Moorea, French Polynesia, a centre dedicated to environmental education, scientific outreach and the conservation of Polynesia's unique natural heritage. She works to strengthen connections between scientific research, local communities and biodiversity conservation through educational initiatives and collaborative projects.
She is actively involved in the conservation of Partula tree snails, particularly through the development of a protected reserve at Te Fare Natura and a local breeding programme in partnership with national and international conservation organisations. Her work focuses on making scientific knowledge accessible, encouraging community engagement and promoting locally anchored approaches to biodiversity conservation in the Pacific Islands.

Paul Pearce-Kelly is the senior curator of invertebrates and fish at ZSL, where he has worked for over 40 years, specialising in the development and management of invertebrate conservation breeding and reintroduction programmes. Paul is a globally recognised expert on the care and conservation of invertebrates, winning 25 BIAZA awards, six international conservation awards and contributing towards the rescue and recovery efforts for 11 Extinct in the Wild Partula snail species, as well as several other species. Paul's pioneering conservation projects focus on smaller wildlife species such as the partula, a small tropical snail native to French Polynesia, saved through three decades of collaboration between conservation zoos and the French Polynesian government.

The endemic Partula tree snails, known as Areho in Tahitian, represent an extraordinary example of island evolution and a distinctive part of Polynesian natural and cultural heritage. Once widespread across the Society Islands, many species disappeared following the introduction of invasive predators, particularly the rosy wolfsnail (Euglandina rosea). Their loss extended beyond biodiversity, affecting a cultural heritage in which their colourful shells were traditionally used to create necklaces and ornaments. Over four decades, an international conservation effort has prevented the complete extinction of several species through emergency rescue, captive breeding and, more recently, reintroductions into their native forests. Encouraging evidence of reproduction in the wild offers hope, although invasive predators and the establishment of self-sustaining populations remain significant challenges. On Moorea, Te Fare Natura Ecomuseum contributes to these efforts through a protected Partula reserve developed with conservation partners. Beyond direct conservation, the museum plays an important role in connecting scientific knowledge with Polynesian communities. A permanent exhibition, traditional shell ornaments, guided visits and educational programmes introduce more than 30,000, including approximately 9,000 schoolchildren annually, to the ecological and cultural significance of Partula. Building on longstanding international partnerships, Te Fare Natura is also exploring the development of local breeding capacity in collaboration with ZSL and CRIOBE, with approval from French Polynesia's environmental authority (DIREN). Still in its early planning and fundraising stages, this initiative reflects a broader ambition to strengthen local expertise and stewardship. Bringing Partula home is therefore not only about restoring threatened species, but also about fostering lasting connections between conservation, cultural heritage and the communities of the islands to which they belong.

Closing words and reflections

Tony Juniper, Natural England

Dr Tony Juniper CBE is Chair of Natural England, the Government's official conservation agency, and a Fellow of the University of Cambridge Institute for Sustainability Leadership, advising many global businesses on developing and implementing effective environmental strategies. One of the UK's leading environmental figures, Tony has been active in the defence of nature for more than 40 years. He has led major organisations, run global campaigns, written numerous books, and advised at the highest levels of Government and business. He began his career as an ornithologist before joining Friends of the Earth, where he led the tropical rainforest campaign and later served as Executive Director. He subsequently worked as an environmental adviser to HRH The Prince of Wales (now His Majesty King Charles III), served as President of the Royal Society of Wildlife Trusts, and held the role of Executive Director at WWF-UK. His books include the multi-award-winning *What Has Nature Ever Done for Us?*, *Harmony* (co-authored with the then Prince of Wales), and, most recently, *Just Earth*. A frequent contributor to television and radio, Tony is a prolific speaker on environmental and sustainability issues. Tony has received numerous awards for his contributions to conservation and was appointed Commander of the British Empire (CBE) in 2017 for services to the environment.

DAY 2

Welcoming words

Vivek Menon, Founder Trustee & Executive Director, Wildlife Trust of India and Chair, Species Survival Commission

Vivek Menon is a leading Indian wildlife conservationist, environmental commentator, author, photographer and policy think tank with a passion for elephants. Founder of five environmental and nature conservation organisations, Vivek spearheads Wildlife Trust of India as its Founder, Executive Director since 1998. He is the current Councillor of the IUCN, Member of the IUCN- Species Survival Commission and Chair of the IUCN Asian Elephant Specialist Group, a Member of the Advisory Board of the IUCN Strategic Initiative on the post-2020 global biodiversity framework, a Member of the Species Survival Commission Steering Committee and Member of the Conservation Translocation Specialist Group of IUCN. His work to combat illegal wildlife trade and take conservation action has won him numerous awards. Bridging core conservation, policy, business and biodiversity, he serves on a number of governmental and non-governmental Boards and Committees.

SESSION 4: Policy and Politics | Chair: Dr Axel Moehrenschlager, Panthera

After the plan: Navigating species recovery through policy and partnership

Cara Martel, FAZA and Re:wild

Cara Martel works with species on the brink of extinction, scaling conservation impact through managed breeding initiatives and reintroductions that support ecosystem restoration. She collaborates with in situ and ex situ teams for inclusive planning and targeted results, with a continual focus on effective conservation strategies for wildlife, wild spaces, and people to thrive. Throughout every effort, Cara strives to share her enthusiasm by connecting people to conservation, all with the goal of rewilding our planet for future generations.

Abstract overleaf.

Recovery plans provide essential roadmaps. As these plans transition to action, effective recovery often requires navigating policy change, advancing partnerships, identifying ongoing implementation gaps, and creating meaningful conservation roles that move species toward recovery. This session will highlight efforts by the subregional zoo association Florida Association of Zoos & Aquariums (FAZA), and the state wildlife agency Florida Fish and Wildlife Conservation Commission (FWC), to identify regional imperiled species whose recovery may now benefit from strategic ex situ support. Through examples ranging from assurance populations and head-starting to emergency response, rehabilitation support, biobanking, and veterinary triage, this zoo-government collaboration demonstrates a strategy for accelerating recovery outcomes.

Networking to achieve better conservation results

Dr Topiltzin Contreras MacBeath, UAEM

For the past 40 years, Dr Topiltzin Contreras MacBeath has been a researcher at the Center for Biological Research of the Autonomous University of the State of Morelos (UAEM) Mexico, where he is responsible for the Conservation Biology working group. He is the author of 38 scientific papers, 62 Red List publications, four books, and contributions to 43 books, as well as 37 outreach publications. Topis is currently Co-Chair of the IUCN/SSC Freshwater Conservation Committee, as well as a member of the Steering Committee of the Species Survival Commission. He was President of the Mexican Society of Zoology, Director of the Center for Biological Research, General Director of Research and Graduate Studies, and Academic Secretary of UAEM, and served as Secretary of Sustainable Development of the State of Morelos from 2012 to 2018. Topis recently received the Sir Peter Scott Award, the highest recognition awarded by the Species Survival Commission for a career in conservation.

Given the enormous challenges presented by biodiversity conservation at the ecosystem and species levels, it is critical to find ways to better organise ourselves to achieve faster, more efficient, and longer-term results to protect and restore our natural environment, as well as to protect the many species at risk. Within this framework, the IUCN Species Survival Commission has promoted the species conservation cycle, which seeks to enhance conservation efforts, starting from species, and seeks to expand our knowledge about the conservation status of species and taxa based on Red List assessments and how this serves as a basis for the structuring of action plans and consequently conservation actions that lead to progress in Goal 4 of the Convention on Biological Diversity, which seeks to "stop the extinction of threatened species and manage populations of wild species to recover their genetic diversity.” All this is promoted through networking and communicating the results generated. Following what is proposed by this cycle, Topis will present and analyse some of the results achieved by various working groups (networks) on topics such as the assessment of global freshwater biodiversity, the development of action plans, and the implementation of conservation interventions related mainly to freshwater species. Finally, a Mesoamerican initiative to enhance biodiversity conservation in the region is shared.

Allaying the Agony of Choice? Using the Red List and the Green Status of Species to inform decisions for species recovery

Mike Hoffmann, ZSL

Mike Hoffmann is Head of Wildlife Recovery at ZSL where he leads efforts to innovate and implement solutions to tricky conservation challenges. Mike's career is defined by close association with the IUCN Red List: he has played an active role in expanding the coverage of the Red List to new taxa, improving the standards, tools, protocols and guidance that support the Red List process, and advising on its use for conservation planning, monitoring and management. He has helped launch or support several initiatives that depend on Red List data to direct conservation efforts, including at the site (Key Biodiversity Areas) and species level (the EDGE of Existence). He has also pioneered approaches to better quantify the impacts of actions and helped develop the IUCN Green Status of Species as a means of measuring species recovery.

Deciding when to rescue a species from the wild is among conservation's hardest choices, made with uncertain data and uncertain futures. Rescue can bring a species into insurance populations just before extinction, yet it carries consequences: removing the last known survivors can shift a species to Extinct in the Wild, or to Extinct if ex situ efforts fail. This talk examines how two complementary IUCN tools can help. The Red List, which measures extinction risk, helps identify priorities for rescue through its categories, criteria, range information and records of threats and conservation actions. The Green Status of Species, which measures recovery and the difference conservation makes, helps decide whether rescue is appropriate. Its forward-looking metrics, Conservation Dependence and Conservation Gain, compare a species' future with and without conservation action, showing where rescue may be the only barrier between Extinct in the Wild and Extinct. Worked scenarios, including the last survivors of a species and a key population that is not its last stand, illustrate how urgency changes. The talk closes with caveats (dated assessments, incomplete data, time lags, uncertainty and the relative paucity of Green Status assessments), and the golden rule: Red List information informs decisions, and must never be used in isolation.

Impacts of policy and politics on recovery actions

Barney Long, Re:wild

Dr Barney Long is Senior Director of Conservation Strategies at Re:wild overseeing the global thematic programs of Endangered Species Recovery, Protected Area Management, Wildlife Crime Prevention, Restoration and Rewilding, and Exploration. Barney works on the conservation of highly endangered species and the site management and thematic approaches required to achieve their recovery. He has worked extensively in the field on a variety of species, and now supports multiple species conservation efforts including rhinos, primates, amphibians, freshwater fish, sharks, small mammals, and tortoises and freshwater turtles. Barney is a strong believer in the power of partnerships for conservation and works extensively with the IUCN Species Survival Commission, SMART, Reverse the Red, Red List, and Extinct in the Wild partnerships.

Species conservation works and there are a growing number of examples demonstrating that with the correct strategy, approach, and support threatened species can recover. However, barriers remain to successful species recovery efforts and many of them are self-inflicted. This talk will examine where the politics of conservation can get in the way of conservation impact and how we can, and should, all work better together for the good of species recovery.

SESSION 5: New Boundaries | Chair: Cara Martel, Re:wild

Moving species or genes where they have never been for conservation
Dr Axel Moehrenschlager, Panthera

Axel Moehrenschlager is Panthera's Director of the Small Cats Program and Conservation Translocations, to escalate global recovery of wild cat species, ecosystem conservation, and livelihood benefits for local communities. He is co-chair of the IUCN SSC Conservation Translocation Specialist Group, which elevates Science, Guidance, Policy, Training, Action, and Outreach for plants, fungi, and animals. Axel is Adjunct Professor at Canada's University of Calgary, Adjunct Associate Professor at Clemson University in the United States, and Research Associate at Oxford University where he received his Ph.D. He also serves on boards, advisory committees, and funding bodies in Canada, the United States, the United Kingdom, Germany, and Kenya.

Two contentious conservation ideas are introducing new genes into organisms, which may be done for conservation translocations, or introducing species into environments where they have never occurred. While seemingly disparate, both involve risks and benefits and we present 14 overarching principles that should be considered for both situations. Among conservation translocations, conservation introductions are most contentious because moving species beyond their indigenous range could harm receiving ecosystems or yield undesirable impacts for human communities. However species that cannot adapt to, or disperse from, major threats are already going extinct, and such extinctions will escalate with increasing impacts such as invasive species and climate change. As we will show, many Extinct in the Wild plant and animal species that persist in ex situ populations cannot currently return to their former range where conditions are unsuitable. This not only presents a dilemma for conservation practitioners, but also for governments. Global tools, and policies for regulatory agencies, are needed. We present a new ecologically-based rubric using seven qualitative criteria to help determine whether assisted colonization may be justified, depending on potential benefits to the translocation candidate and potential risks to the translocated species or recipient sites. We highlight a decision-based framework developed by government for conservation introductions in the United States Pacific region. Moreover we illustrate how careful consideration involving expert elicitation, ecosystem level monitoring, and thorough planning have addressed risks, benefits, and related uncertainties to yield the return of a species after 40 years of extirpation from the wild.
Moehrenschlager, A., Canessa, S., Dalrymple, S., Akcakaya, R., D'Andrea, R., Brodie, J., Vernet, M., and Ewen, J.G.

Using genetics to support European wildcat restoration
Dr Alex Ball, RZSS

Alex Ball is the Conservation Programme Manager at the Royal Zoological Society of Scotland's WildGenes team. At Edinburgh Zoo, Alex manages the first zoo-based conservation genetics laboratory in the UK. Working to use genetics to improve the conservation outcomes of upto 20 species annually, the team focuses on a wide diversity of fauna, including mammals, birds, reptiles and invertebrates. Alex has a background in avian genomics, completing his MSc and Postdoctoral work at the University of Sheffield on Zebra finches, and a PhD in evolutionary biology at the University of Bath. Currently, Alex leads genetic projects on Asian elephants, Siamese crocodile and native species such as the capercaillie. Alex is also an advocate for genetic biobanking and is a member of the IUCN Animal Biobanking for Conservation Specialist Group.

Abstract overleaf.

The European wildcat (Felis silvestris) has undergone continuing declines across its range during the preceding centuries. Persecution, deforestation and more recently hybridisation with domestic/feral cats (Felis catus) are the key drivers of the decline. Translocations, in the form of reintroductions and reinforcements, are increasingly seen as one of the solutions to restore the species to its former range. In Britain, the species is critically endangered, having been declared functionally extinct in 2019. The EUlife-funded Saving Wildcats project established a Conservation Breeding for Release Centre (CBRC) in 2020 and has released 50 European wildcats into the Cairngorms National Park between 2023-2026. A genetic toolkit consisting of four approaches has been developed and implemented during the project to guide evidence-based management decisions, it is composed of 1) a hybrid test, 2) an individual identification test, 3) a population origin test and 4) a diet analysis test. I will outline how the genetic work has been instrumental in conservation management decisions for this species, from the sourcing of individuals for the release programme and continued monitoring of individuals now they are out in the wild.

Indigenous-Led Pathways: New Boundaries in Fish Conservation Biotechnology

Dr Matthew Wylie, New Zealand Institute for Bioeconomy Science

Matt is an Indigenous (Māori) multidisciplinary biologist from Aotearoa New Zealand whose research and professional practice span conservation translocations, conservation biotechnology, assisted reproductive technologies, aquaculture, and Indigenous led fisheries science. His work is grounded in the application of Māori and Western knowledge systems, which he applies in his capacity as the Galaxias species recovery representative for his tribe at Te Rūnanga o Ngāi Tahu and as a Senior Scientist at the New Zealand Institute for Bioeconomy Science.

Freshwater biodiversity is declining globally, driving increasing interest in novel conservation interventions to prevent species extinction. In Aotearoa New Zealand (NZ), approximately 60% of native freshwater fish taxa are classified as Threatened or At Risk under the New Zealand Threat Classification System, including endemic Galaxias species that hold deep cultural significance for Ngāi Tahu (an indigenous Māori tribe in NZ). Emerging tools such as cryobanking and broodstock surrogacy are creating new possibilities for species recovery while simultaneously challenging conventional boundaries around conservation practice, governance, and decision-making. This presentation explores how indigenous-led conservation is redefining these boundaries through the co-development of recovery pathways for threatened freshwater fish. Using the culturally significant giant kōkopu (Galaxias argenteus) as a case study, we examine how next-generation reproductive biotechnologies, including germ cell cryopreservation and transplantation, could support future conservation translocations and safeguard genomic resources of threatened galaxiids. Working across biotechnical, ecological, social, and cultural domains, our transdisciplinary partnerships investigate not only what technologies are possible, but who should govern them, where they should be applied, and what responsibilities accompany their use. We show that indigenous leadership can reshape both the technical and ethical dimensions of conservation planning, expanding the boundaries of species recovery beyond biological outcomes alone. Examples such as the Māori-owned and operated freshwater hatchery at Mataura Falls demonstrate how conservation infrastructure can strengthen enduring connections between people, species, and place while building indigenous leadership and technical capability in emerging biotechnologies. We argue that the future of conservation lies not only in technological innovation, but in developing new ways to combine indigenous leadership, biotechnology, and long-term stewardship. By embracing these new boundaries, conservation programmes can advance more equitable, culturally grounded, and enduring pathways for species survival in an era of accelerating biodiversity loss.

Rescue, recovery and bio-banking: tough decisions in coral conservation
Rachel Jones, ZSL

Rachel Jones has worked for the Zoological Society of London since 1998. She spent 16 years working in and managing aquarium exhibits at London Zoo, before moving to the Conservation and Policy department to work on the Bertarelli Programme in Marine Science in 2017. Her career has bridged animal care and conservation with a particular focus on tropical marine habitats and species, and a lifelong obsession with reef-building corals. Rachel works to coordinate science in service of improved conservation for marine ecosystems, and her efforts aid in creating, understanding and defending the integrity of marine protected areas at an ecosystem scale, enabling large scale natural processes to recover in the face of climate change pressures.

Coral reef conservation has traditionally focused more on the reef ecosystem as a functional unit and paid less attention to the individual coral species within it. ZSL's species focus has been able to balance that approach by looking at corals through an EDGE lens to identify the most vulnerable ones in the areas where we work. This has led us to actively respond to the imminent threat to the survival of an endemic species - the Chagos brain coral. This reactive response to looming existential threat has provided us with key biological information vital for a more strategic species recovery programme and contributed to emerging thinking about the role that living bio-banks can play in preserving global coral diversity.

SESSION 6: Decision Science | Chair: Prof John Ewen, ZSL

Structured approaches to deal with uncertainty and risk in rescue decisions for endangered species
Dr Stefano Canessa, University of Milan

Stefano Canessa is an Associate Professor of Zoology in the Department of Environmental Science and Policy, University of Milan. His research focuses on risk analysis and decision-making for wildlife management, particularly translocations of endangered species. He has been involved in species recovery plans around the world, ranging from frogs and turtles to birds and bats.

When a species approaches extinction, waiting can feel safer than intervening. Yet delay is itself a choice, sometimes with irreversible consequences. How can we make defensible decisions when every option involves some risk? Drawing on the IUCN CTSG's experience in decision science applied to conservation translocations, I explore two challenges in species rescue. The first challenge lies in how we perceive and respond to risk. Uncertainty, risk aversion, and cognitive biases can make hands-off approaches seem safer and new interventions harder to justify. The possible risks of inaction are often implicitly more acceptable than those of inaction. Decision science can expose these asymmetries, clarify trade-offs, and help determine whether further research justifies delaying action. The second challenge concerns the journey from data to decisions. Conservation programmes may collect ample monitoring data, yet struggle to turn them into timely decisions. Fragmented datasets, slow analyses, and weak links between researchers and managers can leave valuable – and expensive – evidence unused. Better decisions require clear pathways connecting observations, analysis, interpretation, and management. These two challenges reinforce each other: reluctance to intervene can limit opportunities to learn, and poor information flows can sustain misleading perceptions of risk. Addressing both can help conservation teams use what they know, recognise what they value, and act responsibly before rescue options disappear.
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Difficult decisions in a wicked world: optimizing conservation strategies to minimize extinction risk

Dr Eben Paxton, US Geological Survey

Eben Paxton is a Research Ecologist with the U.S. Geological Survey Pacific Island Ecosystems Research Center in Hawaii. His research focuses on understanding factors that affect population dynamics – why populations increase or decline over time – and through an understanding of the "why" populations change in size provide natural resource managers information on "how" to maintain healthy populations. His research has focused mainly on endangered birds, using field research, modeling, and genetic research to understand population dynamics and identify possible conservation actions to help imperiled populations, as well as leading structured decision making efforts to develop conservation strategies.

Species imperiled with extinction typically face multiple threats, exist in rapidly diminishing populations, and occur under a cloud of uncertainty in terms of which conservation strategies are most likely to reduce the risk of extinction. This is true for many native Hawaiian forest birds, which have suffered multiple waves of extinction over the last several hundred years and are currently facing a new wave of extinctions. While Hawaiian forest birds face multiple threats, rapid spread of avian malaria into remote forests because of climate change is believed to be the greatest threat to Hawaiian forest birds today. Consensus among biologists studying these species is that there is a high probability that multiple species will go extinct in the coming decade without a rapid, effective conservation response to the threat of disease. The dilemma is where to direct limited resources to achieve the best results. Structured decision making has been key to help devise conservation strategies for Hawaiian forest birds, helping managers decide between suites of alternative actions, each of which have considerable uncertainties for success. We will discuss one recent effort to develop conservation strategies for four species on the brink of extinction and how that process helped guide conservation strategies moving forward.
Paxton, E.H. and Laut, M.

Who Gets the Ark? Prioritising Amphibians for Emergency Rescue

Jonathan Wilcken, Amphibian Ark

Jonathan Wilcken is Executive Director of Amphibian Ark. He has spent much of his career in the ex situ community, including ten years as Director of Auckland Zoo. Jonathan has also had a long involvement with the IUCN SSC Conservation Planning Specialist Group, currently being a member of its Strategic Committee.

Twenty years ago, with amphibians facing an unprecedented extinction crisis, no structured method existed for prioritising species for ex situ rescue. In response, Amphibian Ark developed the Conservation Needs Assessment (CNA): a transparent, repeatable and consensus-driven process for recommending conservation actions, including the need for urgent ex situ management. Since then, CNAs have been completed for more than 3,700 species in 59 countries. This talk explains how the CNA works: being designed to run alongside IUCN Red List assessments and drawing on expert elicitation to deliver rapid recommendations. It will review the results to date, including species and geographic coverage and how CNA recommendations relate to Red List categories. The talk will also cover planned developments to improve efficiency, add further context to recommendations, and integrate more closely with other IUCN planning processes.

Rapid risk assessment for an emerging translocation threat

Caitlin Andrews, The Nature Conservancy

Caitlin Andrews is a conservation scientist with The Nature Conservancy and Zoological Society of London. With a background blending conservation biology, behavioral ecology, animal cognition, and decision science, Caitlin currently leads the science team for the conservation introduction of Guam Sihek (Todiramphus cinnamominus) to Palmyra Atoll. She also provides structured decision-making support and scientific guidance to other conservation translocation efforts around the world.

While translocation planning typically focuses on maximizing the likelihood of positive conservation outcomes, the IUCN SSC Conservation Translocation Specialist Group Guidelines underscore the critical need for predefined adaptive management and exit strategies in case of undesirable outcomes. Nevertheless, few translocation programs develop concrete exit strategies or trigger points, and unexpected emergencies can arise even after careful planning. In high-stress situations, decision-making can easily devolve into unstructured reactions, but delaying decisions can equally jeopardize outcomes. Here, we demonstrate how a highly time-sensitive emergency response can be structured to quickly and systematically assess risks and compare alternative management actions through the application of decision support tools. Following a potential rat incursion on a predator-free island, population managers faced an urgent need to evaluate alternative strategies to protect a newly translocated bird population or trigger a rescue intervention. We conducted a rapid expert elicitation to estimate the likelihood of rat presence, the threat of secondary poisoning under different biosecurity scenarios, and the risks associated with alternative management actions (no action, delayed action, temporary capture, and local translocation). A decision tree simulation model then predicted bird survival across these potential scenarios. Results were quickly synthesized for decision-makers to guide an initial response while remaining adaptive in the face of evolving information. Ultimately, this case highlights that urgency and uncertainty do not preclude systematic decision-making, and that employing these techniques in and out of high-stakes scenarios can enhance the quality, transparency, and defensibility of conservation translocation decisions.

Closing words and reflections

Dr Andrew Terry, ZSL

Dr Andrew Terry is the Chief Conservation Officer at ZSL, where he leads the Conservation and Policy Directorate through the implementation of conservation plans across major ecosystem programmes in Europe, Africa, and Asia. Andrew supports the development of the organisation's conservation strategy and leads the delivery of that strategy across our international field programmes in Benin, Cameroon, Kenya, Mozambique, Mongolia, Nepal, Philippines, Thailand, and India. Andrew is also deeply committed to changing how conservation is delivered with the goal of seeking out new and innovative approaches that engage future leaders for conservation who have traditionally not been included in the process.

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