

Conference Abstracts

4th International Conservation Translocation Conference

7th–9th September 2026 Edinburgh, Scotland



Recommended citation:

Gaywood M.J., Beckmann, K., Cowen, S., Crowley, S., Ewen, J.G., Finger, A., Rheingantz, M.L. and Soorae, P. (eds.)(2026). *Conference Abstracts: Fourth International Conservation Translocation Conference*. NatureScot, Inverness.

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Introduction

The 4th International Conservation Translocation Conference is being held in the UNESCO World Heritage city of Edinburgh, Scotland, from Monday 7th to Wednesday 9th September 2026. This is the first time the event has been held in Europe and we will be hosting delegates from over thirty different countries, covering every continent apart from Antarctica.

The conference is being organised by NatureScot, the Royal (Dick) School of Veterinary Studies University of Edinburgh, the Royal Botanic Garden Edinburgh and the Royal Zoological Society of Scotland. It is being hosted by the University of Edinburgh.

This event follows the successful 3rd International Conservation Translocation Conference held in Perth, Australia, in 2023. This 4th conference provides another opportunity for us to share the latest developments in conservation translocation management, research and innovation. The abstracts for all the posters, speed talks and oral talks are presented in this volume. The conference is being held in collaboration with the IUCN Species Survival Commission Conservation Translocation Specialist Group.



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Poster

A holistic conservation strategy for *Isoëtes malinverniana*, a model for quillwort conservation

Poster - Abstract ID: 71

Prof. Thomas Abeli¹

1. University of Pavia

Isoëtes malinverniana is a critically endangered quillwort endemic to north-western Italy. The species has become a model for conservation studies and practices at the genus level, as it is subject to extensive research on ecology, reproductive biology, genetics, and *ex situ* cultivation and reintroduction.

This contribution provides the most recent updates on conservation-focused studies for this species, with the aim to guide and inspire research and conservation for other similar species.

Comprehensive research is currently underway to understand certain unknown aspects of the species' reproductive biology and genetics that can affect *in situ* and *ex situ* conservation actions and that can be extended to other species of the genus *Isoëtes*.

Optimal temperatures for spore germination have been identified and spore *ex situ* conservation protocols have been developed.

Furthermore, the entire genome has been sequenced; this, coupled with population genomic analyses, will assist in establishing an *ex situ* collection based on the pedigree of genotyped mother plants. Finally, the development of genus- and species-specific markers is ongoing for the detection of *Isoetes* in environmental DNA (eDNA) samples, which will be essential for monitoring purposes.

A One Conservation approach to multiple species reintroductions in Brazil

Poster - Abstract ID: 224

Dr. Vanessa Kanaan¹, Mrs. Raiane Guidi¹, Mrs. Camila Rezende Ayroza¹, Dr. Axel Moehrenschrager²

1. Instituto Fauna Brasil, 2. Panthera

Conservation translocations are increasingly used to address defaunation, yet most initiatives remain species-specific and fail to fully integrate ecological, socio-economic, and animal welfare dimensions. We present a multiple species, One Conservation approach based on three initiatives in Brazil, within the Atlantic Forest biodiversity hotspot: the reintroduction of the vinaceous-breasted amazon (*Amazona vinacea*) in Araucárias National Park, and the reintroduction of brown howler monkeys (*Alouatta guariba*) and southern tiger cat (*Leopardus guttulus*) on Santa Catarina Island. Since 2010, 563 parrots, primarily victims of illegal trade, have undergone rehabilitation, with 257 released across 12 events and confirmed reproduction, including at least 15 fledged individuals. On Santa Catarina Island, 16 brown howler monkeys were translocated in 2024 into two protected areas, with survival reaching 83% in one site and 67% in the other (14% and 66% undetected individuals, respectively), reflecting monitoring challenges. Feasibility studies are underway for southern tiger cat reintroduction, integrating zooarchaeological confirmation of historical presence and prey availability assessments indicating high biomass (>167,000 kg) and low domestic animal presence. Socio-economic actions are central to the projects. Over 100 communities have been engaged, including 476 teachers trained to implement an educational activity guide, with 71% reporting classroom use, while outreach through radio and social media reached over 2 million people. Nature-based income opportunities increased local income, including a 62% rise among artisans, strengthening support for conservation and reducing threats. These initiatives show that reintroduction can restore ecological processes while promoting coexistence, operationalising One Conservation as a practical framework under real-world constraints.

A One Conservation approach to parrot reintroduction: 16 years of vinaceous-breasted amazon recovery

Poster - Abstract ID: 227

Dr. Vanessa Kanaan¹

1. Instituto Fauna Brasil

The vinaceous-breasted amazon (*Amazona vinacea*), an endangered parrot of the Atlantic Forest, was locally extinct in the region currently encompassed by Parque Nacional das Araucárias, southern Brazil. Since 2010, a long-term reintroduction project has been implemented to restore the species, integrating rehabilitation, release, monitoring, and community engagement under national and international guidelines. A total of 563 parrots, victims of illegal trade, captivity, and breeding programs, underwent rehabilitation for up to two years. Of these, 257 individuals met genetic, sanitary, and behavioral criteria and were released in 12 events between 2011 and 2023, while 139 were allocated to licensed institutions. Post-release monitoring combined field surveys and citizen science, recording groups of 2–15 individuals and confirming at least 15 wild-born offspring that successfully fledged. Confirmed mortality reached 15.56%, with predation by domestic and native species as the main cause. Continuous learning has led to protocol improvements, including rehabilitation practices, release strategies, supplementary feeding, installation of nest boxes, and alternative identification methods, enhancing survival, monitoring, and reproduction. Socioeconomic actions were central to project success. Over 100 communities were engaged, 476 teachers received a tailored educational activity guide, educational programmes were implemented in an average of 12 schools annually, and 23 birdwatching events and handicraft initiatives increased income for community members, including a documented 62% rise among artisan groups. After 16 years, the project demonstrates that integrating biodiversity recovery, animal welfare, and community engagement, core principles of One Conservation, can achieve population establishment, threat reduction, and a replicable model for conservation translocations.

A structured decision-making approach to selecting burrowing owl release sites saves time and improves confidence

Poster - Abstract ID: 162

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Burrowing owls (*Athene cunicularia*) are at-risk throughout much of their range in western North America and are listed as Endangered in Canada. A head-starting project has been underway since 2016 to boost the local population in Alberta, Canada. Each year, owls are taken into human care in late summer and released in male-female breeding pairs the following spring. Owls are released into artificial nest burrows, which are reused for multiple years. Annually, we decide which owls to pair and where those pairs are released. Previously, we used a manual approach to make these decisions. We now treat it as a structured decision-making portfolio problem. Release pairs are chosen to 1) minimize relatedness and avoid inbreeding, 2) maximize proximity to capture sites for males, and 3) avoid releasing at sites that had successful nests in the previous year and may have competing owls returning from migration. We include molecular estimates of relatedness, and distances between capture and release sites. We monitor release pairs throughout the nesting season for productivity to estimate the number of possible returns. Each year, we release 13 pairs and have 25 potential release sites, resulting in >5 million possible combinations of owls and release sites. We evaluate a subset of these to establish an “efficient frontier” which comprises options that best meet our criteria and select from these options. This method shows promise as being more efficient, more repeatable, and easier to evaluate than previous methods.

Assessing stress during reintroduction: Faecal glucocorticoid metabolite analysis as an indicator of stress during reintroduction and acclimation of a threatened Australian marsupial

Poster - Abstract ID: 165

***Ms. Melissa Jensen*¹, *Prof. Katherine Moseby*², *Prof. David Paton*¹, *Dr. Kerry Fanson*³**

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Faecal glucocorticoid metabolite (FGM) analysis is a non-invasive method for assessing the physiological response of wildlife to stressors and can be used to help manage and monitor conservation efforts. Reintroduction is an important conservation tool for saving threatened species but can be potentially stressful for the animals involved due to the required capture, holding, transfer and release of animals into unfamiliar environments. Monitoring adrenal activity across different reintroduction phases and release methods is important. So too is understanding how FGMs affect post-release outcomes, including survival, site fidelity, and breeding success. We monitored FGMs in 74 western quolls (*Dasyurus geoffroii*) that were reintroduced to the Ikara-Flinders Ranges National Park in South Australia. Faecal samples were collected from quolls during each phase of the reintroduction, including at capture, during captivity, and following release. FGM concentrations were highest after major transition events, including capture from the wild and transfer to the release site, and lowest after quolls had been back in the wild for over 20 days. Quolls held in delayed-release pens showed elevated FGMs for longer than immediately released individuals, though concentrations converged once all animals were in the wild. Pre-release FGM levels did not predict survival or site fidelity. However, females with higher FGMs during captivity began breeding sooner after release. Results from this study may be used to improve the planning, implementation, and success of future reintroductions of this threatened species across its former range.

Avian conservation translocations: A review of progress and prospects

Poster - Abstract ID: 109

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1. salford, 2. Wildfowl and Wetlands Trust, 3. Royal Society for the Protection of Birds, 4. The University of Edinburgh

Conservation translocations are a common and vital component of many species recovery programmes and are increasingly being used to reinstate wider ecosystem functioning. As a taxonomic group, birds have some of the longest associations with conservation translocations, yet these interventions do still fail. Therefore, identifying common themes and knowledge gaps across global examples will inform future progress and serve as case studies for the wider field. A British Ornithologist's Union (BOU) scientific conference, held in November 2024, aimed to synthesise the current status of global avian conservation translocations. This talk will present the findings of a review paper following the conference, summarising insights spanning five key themes that emerged across sessions: (1) discussion remains around how best to define and measure translocation success, (2) translocations are embedded in wider socioecological contexts, (3) managing individual animal welfare during translocation must consider health and behaviour, (4) translocations must commonly contend with uncertainty, (5) impacts from individuals scale up to affect ecosystem processes, and (6) the increasing importance of decision science and frameworks to further develop the rigor of this field in future. We will highlight key examples of bird species that epitomise these areas, to provide an insight into the current successes and struggles underpinning avian conservation translocations. In doing so, we aim to provide an evidence base that informs not only ongoing conservation management of bird species but also has relevance to the wider field of conservation translocation science.

Balancing urgency and uncertainty: Decision support for red-billed chough reinforcement in Scotland

Poster - Abstract ID: 91

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The red-billed chough (*Pyrrhocorax pyrrhocorax*) population in Scotland has declined to fewer than 50 breeding pairs, now restricted to Islay and Colonsay, and is projected to face local extinction within 50 years. This decline is driven by low juvenile survival associated with habitat degradation, food limitation, disease, and reduced genetic diversity. We applied a Structured Decision Making (SDM) framework to evaluate whether, when, and how conservation translocations could reinforce this population under substantial ecological uncertainty.

We developed 13 alternative translocation strategies differing in age class, timing, source population, and release method. These were assessed against key objectives: maximising population persistence, minimising costs, maintaining genetic integrity, maximising welfare, and promoting system naturalness. Outcomes were predicted using an individual-based population model including an inbreeding component.

No single strategy performed the best across all objectives. Translocation consistently improved long-term persistence relative to no action, which is predicted to result in near-certain extinction. Immediate translocation increased persistence but carried higher risks under current habitat conditions, while delaying action was often preferred but risked population collapse before implementation. Among release strategies, late-winter releases of first-year birds maximised persistence, whereas sub-adult releases provided more balanced trade-offs across objectives, particularly post-release deaths and cost.

These findings highlight key trade-offs between urgency, uncertainty, welfare, and cost. The SDM framework provides a transparent, evidence-based basis for decision-making and supports the development of an adaptive conservation strategy for Scottish choughs.

Beyond barriers: Conservation translocations for the recovery of New Zealand's threatened river-resident galaxiids

Poster - Abstract ID: 253

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Freshwater fishes continue to decline in range and abundance globally. Despite increased research and engagement, recovery planning and documented successes lag behind those of terrestrial and marine systems. In Aotearoa | New Zealand, river resident galaxiids (RRG) continue to be at risk of extinction and measurable recovery has not been seen. Current management relies on the use of exclusion barriers to prevent introduced trout incursion into headwater galaxiid habitat. While barriers have prevented local extinctions, they also resulted in small, fragmented populations at risk of both invasion and the effects of isolation. Here we make the case for a step-change in galaxiid conservation from preventing extinctions to building persistent, resilient populations through conservation translocations. Recovery will require the creation and expansion of new trout-free refuges, supported by strategic translocations into newly created sanctuary space. Such translocations for the purpose of creating new or more resilient populations are currently rare, often due to the absence of accepted scientific and technical guidance and limited capacity. We propose that conservation translocations become an integral part of freshwater recovery planning, underpinned by ecological, social and cultural considerations, to support the long-term recovery of river-resident galaxiids.

Bringing portable, accessible CRISPR-based diagnostics to conservation translocations in low-resource settings through 3D printed equipment and reagent lyophilization

Poster - Abstract ID: 88

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Genetic testing to confirm an animal's species, sex, or disease status can provide critical information to conservation translocation programs. The need for expensive instrumentation (e.g. thermal cyclers) and low temperature storage (-20°C or -80°C) of molecular reagents can make PCR-based genetic testing inaccessible in remote or low resource environments. An advantage of CRISPR-based testing is that less expensive equipment is required (e.g. Axxin T16-ISO portable fluorescence reader; \$8000), but even that may be prohibitively expensive for some programs. To address these limitations, we have adapted the DIYNAFLUOR, an inexpensive (<\$40) 3D printed device for DNA quantification, to take end-point fluorescence readings from CRISPR-based SHERLOCK genetic testing in low resource environments. The DIYNAFLUOR is simple to build and can be powered by a laptop via USB cable. Because the DIYNAFLUOR has no incubation element, we have developed a 3D printed, inexpensive (~\$100), and portable heat block called sherBLOCK for isothermal incubation of SHERLOCK assays. The current sherBLOCK prototype can be powered by a range of 24W barrel-jack-compatible adapters for increased field-compatibility based on available power sources. In side-by-side testing, incubating and reading SHERLOCK reactions with the sherBLOCK and DIYNAFLUOR produces comparable results to those generated by incubating and visualizing SHERLOCK fluorescence in an Axxin T16-ISO. To address reagent storage and sub-zero cold-chain transport challenges, we are also optimizing lyophilization (freeze-drying) of SHERLOCK reagents for storage outside of a freezer. Lyophilized SHERLOCK reagents remain stable for >4 weeks at 4°C, and we are currently investigating new formulations to allow storage at ambient temperatures.

Challenges of introgression in conservation translocations: The endangered wild camel (*Camelus ferus*) in Mongolia

Poster - Abstract ID: 171

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The endangered Wild Camel (*Camelus ferus*) is the only surviving wild member of the *Camelini* tribe and persists in-situ only in remote regions of the Mongolian and Chinese Gobi Desert. In Mongolia, the sole ex-situ insurance population consists of only 40 individuals, representing approximately 5% of the national wild population. Wild camels face multiple threats, including climate change, habitat degradation, and the demographic effects of small population size. In addition, they can hybridize with the domestic Bactrian Camel (*Camelus bactrianus*) to produce fertile offspring. Introgression is frequently regarded as a conservation threat as it may erode the genetic integrity of this endangered species.

Using nuclear DNA markers, mitochondrial DNA, and whole-genome sequencing, we identified evidence of historic, mitochondrial, and nuclear introgression from *Camelus bactrianus* into *Camelus ferus* in between 10% and 22% of the sampled Mongolian in-situ population and in several members of the ex-situ herd.

These findings present a significant conservation dilemma. Introgressed individuals are often excluded from captive breeding and conservation translocation programmes; however, definitions of “genetic purity” are inconsistent and thresholds for acceptable introgression are largely arbitrary. As conservation translocations are increasingly considered necessary to reinforce or establish populations, decisions about whether introgressed individuals should be included become critically important. Excluding such individuals may further reduce the already limited pool of founders available for release, while including them may risk further spread of domestic ancestry into recipient populations. We discuss this balance of genetic integrity with demographic necessity for the future management and recovery of *Camelus ferus*.

Conservation translocation of captive born white-naped mangabeys, *Cercocebus lunulatus* in Ghana - a feasibility study

Poster - Abstract ID: 191

***Mrs. Andrea Dempsey*¹**

1. West African Primate Conservation Action

The white-naped mangabey (*Cercocebus lunulatus*) is a medium- to large-sized, semi-terrestrial monkey distinguished by its slender build, grey fur, white underparts, and a characteristic white crescent-shaped patch on its crown. It also features striking white eyelids and a dark stripe along its back. Historically, the species ranged from western Côte d'Ivoire, west of the Sassandra River, to eastern Ghana near the Volta River, and was also found in southern Burkina Faso. Today, however, it survives only in a few fragmented locations within this former range. The International Union for Conservation of Nature (IUCN) classifies the white-naped mangabey as Endangered, with populations declining steadily over the past four decades due to habitat destruction and hunting.

The West African Primate Conservation Action (WAPCA), an NGO based in Ghana and managed by Heidelberg Zoo, is dedicated to protecting endangered primates and their habitats. Supported by zoological institutions, WAPCA applies a "One Plan Approach," integrating conservation strategies across both wild and captive populations.

Over the past decade, WAPCA has conducted extensive research to evaluate the feasibility of reintroducing captive-bred mangabeys into the wild. This work includes habitat assessments, socio-economic studies, behavioral adaptation research, and the development of monitoring techniques. Following IUCN guidelines, WAPCA aims to determine whether conservation translocation could strengthen wild populations and contribute meaningfully to the long-term survival of this threatened species.

Conservation translocations outside of protected areas: Practice-based lessons from reinforcing the common hamster in intensive agricultural landscapes in Germany

Poster - Abstract ID: 31

Mr. Max Lehmann¹

1. Zoo Leipzig

Conservation translocations are often implemented within protected areas where habitat conditions can be controlled on long term. In contrast, farmland-species present a fundamentally different challenge: they depend on agricultural management but are highly sensitive to agricultural intensification.

The critically endangered common hamster (*Cricetus cricetus*) is an example for this dilemma. The species requires cultivated arable land and cannot survive in unmanaged fallow-land or classic reserves in Germany. However, modern large-scale, high-intensity farming systems fail to provide sufficient cover continuity and often lack food resources, which can lead to malnutrition.

Reinforcement measures take place within agricultural landscapes where crop selection, harvest-timing and soil-management change habitat conditions each year. Complex soft-release infrastructures are therefore impossible to implement, also having in mind the biology of this species.

To increase post-release survival, conservation efforts are integrated such as structured crop design, delayed harvest, and protection measures before and during the establishment phase. While mortality cannot be eliminated, these management actions can prolong survival windows and thus enable reproduction.

Conservation translocation measures of this species in a limited and isolated area are not sufficient in terms of its sustainable conservation. Therefore, metapopulation management, including ex-situ and in-situ populations, is necessary due to declining abundances and genetic diversity.

Our experience highlights the constraints of translocations in productive landscapes and underscores the need to move beyond reserve-based conservation paradigms and collaborate with a diverse group of stakeholders. The lessons learned are applicable to other declining farmland animals, where conservation must function within, not outside, agricultural production systems.

Creatures small and tricky: Challenges and lessons from saving some of Britain's most threatened invertebrates

Poster - Abstract ID: 63

***Dr. Jane Sears*¹**

1. RSPB

The talk will cover the challenges of restoring populations of invertebrates that are near extinct or have gone extinct within the country. It will draw from direct experience of long-term (10-25 year) partnership projects to save three species in Britain; short-haired bumblebee, *Bombus subterraneus*; pine hoverfly, *Blera fallax*; and field cricket, *Gryllus campestris*. Each of these suffered severe declines in Britain during the twentieth century; two were limited to a single population numbering very few individuals by the 1980s. The short-haired bumblebee was last recorded in Southern England in 1989 and was declared extinct in 2000.

Studying small and relatively cryptic species with complex lifecycles is hard enough but with the added challenge of limited numbers to study in the wild, this makes such translocations particularly difficult. I will compare the novel approaches taken, including the study and translocation of captive reared short-haired bumblebees from New Zealand where they were introduced to pollinate crops in the 1870s, the development of innovative captive breeding methods for pine hoverfly – the first known so far for a saproxylic hoverfly, and the successful use of direct translocation of small numbers of field crickets once a parasitic protozoan was discovered in captive stock. All three of the projects have been successful in their own way. The lessons learnt and their relevance for other projects will be explained, including the primary one: invertebrate reintroductions are not easy and require long-term commitment - so don't let species go extinct.

Engaging local community participation in species reintroduction success: Lesson learned from orangutan rehabilitation habitat project by MPOGCF in Lahad Datu, Sabah, Malaysia

Poster - Abstract ID: 98

Mr. Daniel Pamin¹

1. Malaysian Palm Oil Green Conservation Foundation

The Malaysian Palm Oil Green Conservation Foundation was initiated as a platform to reflect the government's commitment towards ensuring sustainable management practices in the industry. The MPOGCF has pledged to work with the state forestry department on a forest rehabilitation project for Bornean orangutan habitat at Ulu Segama Forest Reserve, Sabah, Malaysia. The main objective was to restore the 2500 hectares of degraded forest by reintroducing native tree species, which were previously severely logged and damaged due to forest fires. The fully protected FR now is an important wildlife corridor, especially for the endangered Bornean elephant (*Elephas maximus borneensis*) and the orangutan (*Pongo pygmaeus mario*). By engaging the local communities that are also oil palm smallholder planters, this will empower them to appreciate the restoration, reduce human-wildlife conflict, preserve the forest landscape, and create opportunity for additional economic self-sufficiency. Programs include strengthening capacity-building opportunities and supporting locally based seedling producers. A total of 100 individuals have participated, and all seedlings used in this project were grown, nurtured, and purchased directly from the community nurseries. Highlighted native tree seedlings planted are the IUCN (EN) *Dryobalanops aromatica*, *Anisoptera costata*, and Borneo's endemic *Parashorea parvifolia*. The committee nursery has successfully delivered almost 300,000 seedlings and planted an area covering 500 hectares. By fostering a sense of ownership through active involvement in the rehabilitation process and creating alternative income, this could play a significant role in promoting coexistence to benefit the community and wildlife through the conservation translocation element included in this project.

Experimental genetic rescue in a cooperative breeder: Translocation design, early social dynamics, and mate choice

Poster - Abstract ID: 126

Mrs. Lauren Currier*¹, *Ms. Shelagh Lynch*², *Dr. Sahas Barve*², *Dr. Eric Hoffman*³, *Dr. Raoul Boughton

⁴

1. University of Central Florida / Verdantas, 2. Archbold Biological Station, 3. University of Central Florida, 4. The Mosaic Company

Genetic rescue is often required to recover populations that have experienced genetic erosion. However, designing and implementing experimental translocations—with targeted candidate selection, adequate experimental sample sizes, and sufficient resources to monitor outcomes—can be challenging. From 2003–2010, 51 Florida Scrub-Jays (*Aphelocoma coerulescens*) were translocated within an at-risk metapopulation to increase viability and consolidate a previously fragmented population structure. The translocation was demographically successful. Nevertheless, comparisons between 2005 and 2021 revealed that heterozygosity declined and inbreeding increased, likely due to high reproductive skew.

This study aimed to elucidate strategies for improving genetic diversity and long-term persistence by translocating 16 unrelated yearling birds from within the at-risk population and 32 from two other genetically distinct donor sites to ~130 ha of unoccupied habitat. A mass translocation was performed between 26–29 January 2026, and we hypothesized that translocated jays will mate randomly, generating genetic admixture sufficient to increase genetic viability. Birds were released in two groups partitioned equally by sex and donor site. Monitoring combined visual surveys with RFID-equipped feeding stations and camera trapping. For this talk we are assessing persistence during the first six months post-release and testing for effects of release group on social network structure. Mating patterns during the first nesting season will be evaluated to assess assortative versus random pairing. Sixty days post-translocation, 92% of birds remain, ten possible pairs observed, of which three begun nest construction. This study contributes empirical insight into how experimental design, early social dynamics, and mate choice may influence the effectiveness of genetic rescue efforts.

Facilitating citizen power in conservation translocation: Benefits, costs, and challenges of local community leadership

Poster - Abstract ID: 151

Mr. Max Henderson¹, Dr. Roger Auster¹, Dr. Sarah Crowley¹, Dr. Jenny Macpherson²

1. University of Exeter, 2. Vincent Wildlife Trust

Increasing inclusion of wider publics in conservation decision making has been among the major defining paradigm shifts within the field over the past few decades. Conceptual models for understanding the range of possible approaches highlight that participatory conservation projects - in order to be meaningful as opposed to tokenistic – must strive to include wider publics in decision making, delegate power, and/or shifting the agency from external bodies to the local community. Required groundwork for achieving higher participation levels include some degree of consensus concerning desired outcomes, tools and knowledge required to solve the problem, and values underpinning these decisions, along with a degree of trust amongst stakeholders. Public and political support or opposition can significantly impact likelihood of success in conservation translocation projects, though importance varies depending on the specifics of the project in question.

In this project, we will evaluate the applicability of highly participatory processes in conservation translocations. Through review of the available literature and a combination of qualitative and quantitative analysis of perspectives from a range of British publics, we aim to answer the following questions:

How might participatory methods best be applied within the field of wildlife translocation?

How do stakeholder and public attitudes vary towards different species/taxa and their reintroduction?

How might communities of interest in conservation translocation effectively create spaces for dialogue around nature restoration?

With these insights we are working to develop a toolkit that addresses key barriers to inclusion of highly participatory approaches in conservation translocation projects.

Flagships and keystones: White-tailed sea eagle reintroductions and ecological restoration

Poster - Abstract ID: 246

Dr. Duncan Halley¹

1. Norwegian Institute for Nature Research (NINA)

Single species reintroduction is one of the oldest forms of ecological restoration. While the shift in emphasis to large scale, ecosystem-based restoration is a welcome development, individual species reintroduction remains an important tool in wider ecological restoration – both for restoring ecological functionality to degraded systems (keystone species) and for fostering public interest in nature restoration, leading to greater support for and understanding of restoration in general (flagship species). Reintroductions of white-tailed sea eagles from 1975 to the present illustrate these roles - the restoration of a keystone large avian scavenger (the 'vulture' of freshwater and coastal ecosystems), a predator, and as a flagship species whose reintroduction has affected the development of more ecosystem-based approaches to ecological restoration in the same areas. The challenges and opportunities encountered in 50 years of reintroductions of this species into varied social and economic, as well as natural, environments are outlined, along with some insights for more effective use of this and other species for wider ecosystem restoration in future - and some pitfalls to avoid.

From captivity to the wild: Restoring migratory corridors through integrated genetic management

Poster - Abstract ID: 170

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1. Reneco International Wildlife Consultants, LTD

Genetic management is central to conservation translocation and ex-situ programmes deployed as complementary tools to mitigate biodiversity loss. Effective translocations require rigorous planning integrating genetic, ecological, and demographic considerations to minimise risks such as inbreeding, outbreeding depression or maladaptation. Accordingly, ex-situ populations are developed to support *in-situ* conservation while maintaining genetic diversity, evolutionary potential, and behaviours to ensure long-term viability and translocation success. Within this framework, integrated genetic management combines genomic data, pedigree-based approaches, and population monitoring to optimise founder selection, genetic maintenance, and guided translocations.

This study illustrates the application of such an approach to the Asian houbara bustard (*Chlamydotis macqueenii*), a wide-ranging migratory species facing habitat degradation, overexploitation, and disruption of migratory corridors. Distributed across the steppes of the Middle East and Central Asia, the species comprises both resident and migratory populations structured along distinct flyways. Long-term tracking data indicate a recent range contraction, including the erosion of long-distance migrants wintering in the Arabian Peninsula.

Range-wide genomic analyses reveal spatially structured populations, enabling the delineation of conservation units and informing targeted management strategies. These insights inform *ex-situ* programme and its genetic management strategy, resulting in self-sustaining captive populations structured by conservation units, with low inbreeding alongside high genetic diversity.

Following release, captive-bred individuals displayed migratory behaviour comparable to wild conspecifics, contributing to population reinforcement and the restoration of migration corridors. This confirms the potential for preservation of key ecological traits during captivity and underscores the need to integrate robust genetic management within conservation translocation frameworks.

Genetics to the rescue? Evaluating the impacts of genetic augmentation in the world's most inbred bird

Poster - Abstract ID: 129

Prof. Tammy Steeves¹, Ms. Kate Moloney¹, Dr. Elizabeth Parlato²

1. University of Canterbury, 2. Massey University

Genetic rescue—the increase in population growth and persistence resulting from human-mediated gene flow—is a promising conservation translocation strategy for reducing extinction risk in small populations. The Nationally Critical black robin (*Petroica traversi*) is restricted to two offshore islands (Rangatira and Mangere) in the Chatham Island Archipelago, Aotearoa New Zealand. In 2022, ten females were translocated from Rangatira to Mangere to prevent extinction of the Mangere population, where low productivity was identified as the primary constraint on population growth. Our study combines demographic and genetic data to assess whether changes in population growth following augmentation of the Mangere population can be attributed to genetic rescue. We generated high-quality genomic resources to determine parentage, inbreeding and admixture. We modelled these data with 15 years of vital rate data (12 pre- and three post-augmentation) within an integrated population modelling framework to understand the effects of genetic augmentation on survival, reproduction and population growth. Our results indicate positive, though tentative, effects of genetic augmentation on adult survival and reproduction, indicating alleviation of the previously low productivity. Together, these effects result in a notable improvement in projected population growth, with the population predicted to decline without admixture but to grow when fully admixed. Nevertheless, this projected growth assumes persistence of early post-augmentation benefits, which are expected to wane with re-accumulating inbreeding. Future work will extend modelling to forecast admixture and inbreeding to inform long-term population projections. Our results demonstrate that integrating genetic data with long-term demographic monitoring enables rigorous assessment of genetic rescue.

Genomic resources for metapopulation management of the eastern black rhino in Kenya

Poster - Abstract ID: 183

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Genomic information is a powerful tool in effective translocation programmes, but high coverage whole genome re-sequencing for accurate genotype calling remains prohibitively expensive for many conservation projects. Genotype imputation from reference panels – leveraging high-coverage genomes to infer variants in low-pass sequencing datasets – offers a scalable and cost-effective solution for population genomic monitoring. Here, we plan to develop and validate an imputation panel as a tool to support translocation management of the eastern black rhinoceros (*Diceros bicornis michaeli*) within Kenya, where recovery efforts rely on metapopulation management.

We will develop two foundational genomic resources, *i*) a chromosome-scale, phased, long-read genome assembly to enable accurate variant discovery and, *ii*) a haplotype-resolved reference panel derived from high-coverage re-sequencing data representing the national metapopulation. Imputation accuracy will be evaluated across a range of sequencing depths (0.1x - 5x) by down-sampling high-coverage genomes and comparing imputed genotypes to known variants. We will also develop a bioinformatics pipeline to apply the panel to translocations of Kenya's rhinos under a metapopulation strategy, providing practical guidelines for cost-effective, genome-wide monitoring that are scalable for routine conservation use.

Incorporating intraspecific diversity into Nature-based Solution (NbS) translocations: A systematic evidence map

Poster - Abstract ID: 248

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Nature-based Solutions (NbS) are increasingly central to global efforts to halt biodiversity loss while addressing societal needs. Yet a critical dimension is often overlooked: the genetic and phenotypic variation within species that underpins their capacity to adapt and persist under environmental change. As a core component of biodiversity, intraspecific diversity warrants explicit conservation, and, critically, without accounting for it, even well-designed NbS interventions risk falling short of their long-term goals. Translocations, the deliberate movement of organisms for conservation purposes, are a cornerstone of many NbS aimed at managing, restoring, or creating ecosystems. However, translocation strategies and outcomes remain highly variable, and there is little consensus on how to improve their success. To address this gap, we will first compile a comprehensive evidence map characterising how intraspecific diversity has been incorporated into NbS translocations. Using a systematic evidence approach, we will synthesise the scientific literature to examine how genetic and phenotypic diversity are considered, measured, and evaluated across all stages of the translocation timeline (planning, implementation and monitoring) spanning interventions from the population to ecosystem scales. This synthesis will identify knowledge clusters and evidence gaps, providing the foundation for subsequent quantitative analyses of how intraspecific diversity and evolutionary processes influence translocation outcomes, affect recipient ecosystems, and contribute to societal benefits. Ultimately, this work will support the development of an evidence-based framework to help practitioners and policymakers design NbS that explicitly incorporate evolutionary processes and maximise long-term ecological resilience.

Indigenous-led innovation: Next-generation biotechnologies transforming fish conservation translocations

Poster - Abstract ID: 52

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Captive breeding is often a precursor to conservation translocations, but its social and cultural dimensions are rarely addressed. Over 70% of Aotearoa-New Zealand's (NZ) freshwater fish taxa are currently threatened or at risk of extinction, including endemic Galaxiidae species which hold deep cultural significance for Ngāi Tahu (an Indigenous Māori tribe in NZ). Emerging biotechnologies such as germ cell cryobanking and broodstock surrogacy could support the recovery of these species—yet application of these biotechnologies raises a suite of considerations, including how conservation and scientific goals intersect with Indigenous values and priorities. To address these challenges, our transdisciplinary team is working across biotechnical, social, ecological, and cultural domains to identify the key decision points that will empower Indigenous communities to lead the potential development and application of these conservation tools. We are exploring questions such as: how could captive breeding facilities and cryobanks be governed, and where should they be located? What approaches could minimise negative fitness effects of captivity and ensure individuals are ecologically and culturally suitable for translocation? Are gene-editing approaches, such as CRISPR-Cas9, appropriate for inducing sterility in broodstock surrogates? And what is needed to maintain intergenerational connectivity between biological samples, genomic data, places of origin, and the Indigenous communities who hold cultural relationships with these species? By centring Indigenous leadership in biotechnological research and translocation planning, we aim to foster place-based, innovative approaches that strengthen the wellbeing of Indigenous communities and their treasured species for generations to come.

Integrating lessons learned and emerging strategies to advance ‘alalā (*Corvus hawaiiensis*) reintroductions on Hawai‘i Island

Poster - Abstract ID: 69

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The ‘alalā (*Corvus hawaiiensis*), an endemic Hawaiian corvid considered extinct in the wild, is the focus of reintroduction efforts on Maui and Hawai‘i islands. Hawai‘i Island releases from 2016-2020 demonstrated ‘alalā can survive for years post-release but did not lead to an established population. Direct causes of mortality included poor body condition, infection, and predation by introduced and endemic predators, including ‘io (Hawaiian hawk; *Buteo solitarius*). Factors associated with mortality included reduced supplemental feeding and increased density of territorial individuals.

Key lessons learned include spatially distributing releases to avoid concentration at a single site, as well as managing complexities associated with supplemental feeding and weaning. Additionally, predation risk persisted despite appropriate anti-predator responses observed before and after release.

A new reintroduction effort planned for 2027 incorporates these lessons. The updated strategy includes releasing multiple bonded adult pairs from spatially separated aviaries and implementing adaptively managed supplemental feeding, with adjustments informed by post-release monitoring. Improved understanding of ‘io movement ecology is informing planning, but predation will remain an ongoing threat.

There are challenges requiring innovation. Monitoring technologies must function reliably in dense, wet forest environments to facilitate remote post-release monitoring and decision-making. Feeding systems must operate with minimal on-site human presence while enabling individual-level monitoring and management of conspecific aggression.

This effort represents a collaborative, multi-agency approach that integrates past experience, technological advances, and new ecological knowledge, with the goal of returning ‘alalā to the wild as both a native seed disperser and culturally significant species to Native Hawaiian communities.

Is there mush-room for bettongs on Dirk Hartog Island? Environmental DNA assessment of food resource availability for fauna translocations

Poster - Abstract ID: 39

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Boodies (*Bettongia lesueur*) and woylies (*Bettongia ogilbyi*) are mycophagous Australian marsupials that contribute to ecosystem health through soil bioturbation and the dispersal of fungal spores. As part of ongoing restoration efforts, these bettong species are being reintroduced to Dirk Hartog Island in Shark Bay, Western Australia, where understanding dietary requirements is essential for appropriate translocation planning. This study investigated the mycophagous habits of boodies and woylies in arid and semi-arid regions through environmental DNA (eDNA) metabarcoding of scat samples from existing populations. Complementing our dietary analysis, we applied the same technique to soil samples across three dominant habitat types on Dirk Hartog Island to characterise the available fungal resources. Of the macrofungi identified, ectomycorrhizal fungi dominated all habitats, with Pezizaceae being the most abundant family—a pattern consistent with dietary preferences of boodies and woylies across multiple Australian locations. Fungal community composition differed significantly among habitat types, with birrida (saltpan), dwarf scrub, and shrub-steppe each supporting distinct assemblages. Comparative analysis revealed approximately 50% overlap between the island's fungal communities and bettong diets, suggesting suitable resource availability. While potential dietary overlap (25-33%) exists between species, the island's size and spatial distribution of fungal resources suggest competition is unlikely to limit population establishment. These findings demonstrate that Dirk Hartog Island has diverse fungal resources suitable for supporting both species, with birrida habitat recommended as preferential release sites following rainfall events to maximise foraging success. This study represents a novel approach to pre-translocation assessment with implications for planning reintroductions and informing adaptive management strategies.

Just add water - returning the Tadpole Shrimp to Mersehead

Poster - Abstract ID: 65

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1. Buglife - The Invertebrate Conservation Trust, 2. ECO-LG Ltd, 3. Naturescot

The Tadpole Shrimp (*Triops cancriformis*) is amongst the oldest known extant animal species on Earth. In Britain, the species had been reduced to just two populations: one in the New Forest, Hampshire, and one at the Wildfowl and Wetlands Trust's reserve at Caerlaverock on the Scottish Solway Coast, rendering it highly vulnerable to stochastic extinction. A historically documented population at RSPB Mersehead, Kirkcudbrightshire (~10km southwest of Caerlaverock), was presumed extirpated in the 1960s following coastal erosion, with the last confirmed record in 1948.

As part of the Species on the Edge conservation programme, Buglife, RSPB Scotland, and the Wildfowl and Wetlands Trust collaborated with independent ecologist Dr Larry Griffin (ECO-LG Ltd) to translocate *T. cancriformis* to its former range at RSPB Mersehead Nature Reserve. Between 2023 and 2024, individuals were reared under controlled laboratory conditions from eggs collected at the extant Caerlaverock population. Resultant egg-laden sediment, containing in excess of 20,000 eggs, was heat-treated at 60°C to eliminate pathogens prior to distribution across seasonally inundated coastal pools at Mersehead during the summers of 2024 and 2025.

Following significant autumnal rainfall in 2025, adult individuals were confirmed at Mersehead, establishing the UK's third known extant population and marking the successful recolonisation of this coastline after an absence of over six decades. These findings demonstrate the viability of sediment-based egg translocation as a method for restoring populations of branchiopod crustaceans with cryptobiotic life stages, and support the case for further translocation efforts to broaden the species' range across its historical UK distribution.

Linking evidence to policy and practice to support more successful conservation translocations

Poster - Abstract ID: 166

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Conservation translocations are increasingly seen as a vital tool for nature's recovery, however, the legislative, regulatory and policy background is complex. The England Species Reintroductions Taskforce was created to enable more and better conservation translocations in partnership with Natural England (NE) and the UK Government, Department for Environment, Food & Rural Affairs (Defra). The Taskforce works to ensure adherence to good practice, to develop the evidence base and new guidance, and to inform policy. Taskforce expertise fills gaps in understanding and delivering the social aspects of projects. Working closely with NE and Defra, the Taskforce has explored the contribution of conservation translocations to delivering the Government's Environment Act targets on reducing species extinctions and increasing wildlife abundance. In collaboration with Scottish counterparts, the Taskforce has produced a ground-breaking framework and guidance for UK conservation introductions (assisted colonisation and ecological replacement). Other key Taskforce deliverables are described: the formation of a broad stakeholder network to act as a critical friend and understand the motivations of those taking action outside best practice; a UK database of existing and new conservation translocation projects; an online hub as a one-stop shop for guidance, training, and support. Aligning the energy and innovation of practitioners with an improved link to policy should result in channelling passion and optimism towards delivering more successful conservation translocations.

Maintaining wild mammal welfare during ex-situ conservation transfers amidst heightened instability: Insights from population management programmes at the Gdańsk Zoo, Poland

Poster - Abstract ID: 252

Ms. Weronika Michalska¹

1. University of Warsaw

This study aims to determine the impact of heightened instability — driven by military, pandemic, and environmental crises — on the transportation and welfare of wild mammals, focusing on case studies within EAZA *Ex-situ* Programmes (EEPs) at the Gdańsk Zoo, Poland. While inter-institutional transfers are fundamental to *ex-situ* conservation, comprehensive analyses assessing how contemporary geopolitical, health, and ecological disruptions affect animal welfare remain scarce. Aligning with the IUCN's 'One Plan Approach', which integrates *in-situ* and *ex-situ* conservation into a single synchronised framework, safeguarding mammal welfare during EEP transfers is paramount. These movements are crucial for maintaining healthy genetic diversity, serving as a biological reservoir for species that may ultimately face reintroduction into the wild.

Objectives are: (1) to evaluate the impact of these crises on logistical transport procedures, (2) to analyse wild mammal welfare levels during *ex-situ* transfers amidst heightened instability, and (3) to establish actionable recommendations for zoological practice.

A mixed-methods approach was employed, combining transport documentation analysis and semi-structured interviews with zoological staff at the Gdańsk Zoo. Data collection focused on key mammal groups managed under EEPs, including endangered ungulates, primates, and large carnivores, examining quantitative logistical metrics and qualitative welfare assessments across distinct crisis contexts.

Expected outcomes include identifying transport phases most taxing for mammals during volatile conditions. Consequently, evidence-based recommendations will be proposed to mitigate stress and refine transport protocols.

Ultimately, optimising these *ex-situ* transfers is critical. Enhancing welfare protocols secures immediate individual health and underpins broader global conservation efforts, ensuring viable populations remain available for future *in-situ* recovery.

New ways to the wild: The role of trust and ingenuity in the conservation of San Clemente loggerhead shrikes (*Lanius ludovicianus mearnsi*)

Poster - Abstract ID: 211

Ms. Sarah Sheldon¹, Ms. Jaelean Carrero¹

1. San Diego Zoo Wildlife Alliance

Since 1991, San Diego Zoo Wildlife Alliance (SDZWA) has been a part of the San Clemente Loggerhead Shrike Recovery Program. Our role within the partnership is to: provide birds for annual release to augment the wild population via conservation breeding, act as a species reservoir against catastrophic loss, and care for injured or abandoned birds or eggs. To accomplish these goals, we rely on well-established and thorough protocols that have been refined over time, while also innovating and adapting new techniques to address the novel challenges and changes that arise yearly. These new tools in our toolbox, include: fostering eggs and chicks, developing pre-release training regimes, adapting our annual efforts and targets based on predicted conditions in the wild post-release, modifying pair selection to incorporate mate choice, double clutching both inter- and intra-pair, developing new release types, re-establishing historic release types, and implementing post-release weight monitoring. Our in-depth knowledge of shrike breeding and behavior coupled with our track record of sound decision-making are direct consequences of SDZWA's dedication to recovery efforts on San Clemente Island (SCI). As of 2025, we have successfully reared 1278 and released 898 shrikes to the wilds of SCI using these techniques. Both our historic practices and our ongoing additions to them have shaped our role within the larger partnership over the course of the program, allowing us to build and leverage trust, guide our own efforts and those of other collaborators, accomplish our programmatic goals, and expand our efforts to advance shrike recovery.

Optimizing disease risk analysis in conservation translocations: a novel hazard prioritisation approach applied to the Vietnam pheasant (*Lophura edwardsi*) reintroduction

Poster - Abstract ID: 72

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The Vietnam pheasant (*Lophura edwardsi*), a critically endangered species endemic to central Vietnam, is likely extinct in the wild. A complex conservation translocation programme is underway to reintroduce captive-bred individuals to the Khe Nuoc Trong Nature Reserve. Disease risk analysis (DRA) is a stepwise process to reduce translocation-associated disease risks, safeguard health and promote successful translocation outcomes. There remains scope to improve how disease hazards are prioritised in DRA, however. We aimed to determine potential disease hazards to the Vietnam pheasant reintroduction and to develop a systematic, transparent approach to prioritise infectious hazards for risk assessment and management.

We undertook a comprehensive review of veterinary and husbandry records from captive Vietnam pheasant populations, and a literature review, to identify potential hazards to translocated pheasants, and those from translocated pheasants to other animal and human populations. We then developed and applied a flowchart-based method to prioritise the infectious hazards.

In the review of captive records, trauma was identified as the leading cause of mortality, while parasitic infections were the most frequently reported disease requiring veterinary intervention. In total, 100 potential disease hazards were identified: 78 infectious, 21 non-infectious, and one unknown. The prioritisation framework reduced the number of infectious hazards prioritised for risk assessment by at least 50% across hazard types.

This practical, scalable approach to hazard prioritisation can be applied to DRAs for other species. It maintains transparency and reproducibility, while enabling more efficient allocation of resources in DRA for complex, data-limited reintroduction projects.

Population dynamics of the North African Houbara bustard: The challenge of sustainable recovery in arid ecosystems

Poster - Abstract ID: 99

Dr. Yves Hingrat¹

1. Reneco International Wildlife Consultants, LTD

Conservation translocations are increasingly used to restore declining species, including species from desert and arid ecosystems. However, such ecosystems are more than ever at risk of irremediable degradation and desertification, potentially impeding translocation success. The North African houbara bustard (*Chlamydotis undulata undulata*) has been declining primarily due to unregulated hunting and poaching. Since 1998, about 200k captive bred houbara have been translocated across North Africa to reinforce wild populations and supplement regulated hunting grounds. Long term individual and population monitoring in a managed area in Eastern Morocco revealed the ability of released houbara to survive and breed successfully leading to positive and significant impact of translocations on the population size. However, Integrated Population Models predict that under current management the population is currently not viable, mainly due to decrease in survival and productivity playing a key role in driving population dynamic. Studies on the relationship between, demographics and habitat suitability (SDM) are pointing at limitation in the availability of high quality habitats, food resources, and intrinsic population regulation mechanisms (density dependence). Additionally, remote sensing analyses highlights a decrease in vegetation greenness index confirming observed significant changes in the region, while human land use and climate change scenarios forecast a significant niche restriction for the North African Houbara Bustard. All together these results advocate the need to re-evaluate current management in terms of translocation effort, protection and hunting regulation.

Proposed plan for a conservation translocation of the endangered 'Ākohekohe (crested honeycreeper, *Palmeria dolei*) in Hawai'i to minimize disease related extinction risk

Poster - Abstract ID: 86

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The Maui endemic 'ākohekohe (*Palmeria dolei*) is rapidly declining, with current trajectories indicating a high risk of extinction without intervention. Although avian malaria (*Plasmodium relictum*) is a major threat to Hawaiian honeycreepers, the rate and spatial progression of transmission of the disease remain uncertain across the Hawaiian Islands. To reduce extinction risk given this uncertainty, we propose an interisland conservation translocation to establish a second population of 'ākohekohe on Hawai'i Island. Distributing birds across islands reduces vulnerability to stochastic events and provides resilience if threats such as disease intensify or progress differently across separate locations. Given the limited availability of habitat on Maui and poor outcomes of past attempts to captively manage the species, translocation offers a practical near-term conservation action for the 'ākohekohe. Potential release sites on Hawai'i Island were identified through a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, and cohort size selection informed by Population Viability Analysis (PVA). The plan calls for the capture of a minimum of 20 adults ($\geq 50\%$ female) from areas of highest density on Maui and their transport by helicopter to one of four candidate sites on Hawai'i Island. All individuals would be screened for avian malaria prior to release and fitted with radio transmitters and color bands for intensive six-month post-release monitoring. Initial success metrics include $\geq 50\%$ survival and a reduction in long-distance dispersal, while longer-term monitoring would assess breeding, recruitment, and persistence. This project would serve as a model to guide future translocations of other highly vulnerable Hawaiian honeycreepers.

Rapid risk assessment for an emerging translocation threat

Poster - Abstract ID: 203

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While translocation planning typically focuses on maximizing the likelihood of positive conservation outcomes, the IUCN SSC Conservation Translocation Specialist Group Guidelines underscore the importance of predefining 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 stressful situations, urgent decision-making can easily devolve into unstructured reactions, but delaying decisions can also jeopardize outcomes. Here, we demonstrate how a highly time-sensitive emergency response can be structured to quickly yet systematically assess risks and compare alternative management actions through the application of decision support tools. The sudden threat of a potential rat incursion on a predator-free island necessitated an urgent assessment of alternative strategies to protect a newly translocated bird population. A rapid expert elicitation was conducted to estimate the likelihood of rat presence; threat of secondary poisoning under different biosecurity scenarios; and risks associated with alternative management actions including no action, delayed action, temporary capture, and local translocation. A decision tree simulation model was then used to predict bird survival across the wide range of potential scenarios. Results were quickly formulated and summarized for decision-makers to guide an initial response while remaining adaptive so guidance could be updated in the face of evolving information. Overall, this case highlights that urgency and uncertainty do not preclude systematic decision-making processes, and that employing these techniques in or out of high-stakes scenarios can enhance the quality, transparency, and defensibility of conservation translocation decisions.

Re-emergence of tuberculosis in a wild Asian elephant in Sri Lanka: Genomic characterization and epidemiological insights with translocation risk

Poster - Abstract ID: 188

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Sri Lanka supports approximately 6,000–7,000 wild elephants (*Elephas maximus maximus*), the second-largest population in Asia, with about 200 captive individuals. While human–elephant conflict remains the principal conservation challenge, infectious diseases such as tuberculosis (TB), caused by *Mycobacterium tuberculosis* (*Mtb*), are emerging concerns due to their implications for wildlife, livestock, and public health. TB in elephants is often subclinical but may present as chronic weight loss, weakness, and respiratory signs. In Sri Lanka, the first fatal TB case in a wild elephant was reported in 2014 from Udawalawe National Park (UNP), with no additional fatal cases documented until 2025, despite evidence of 15% seroprevalence. This study investigated a fatal TB case in a wild elephant from UNP. Postmortem lung tissues were analyzed using mycobacterial culture, PCR targeting the IS6110 insertion sequence, and Sanger sequencing of the 16S rRNA gene for species confirmation. Culture yielded positive growth, and acid-fast bacilli were observed indicating a high mycobacterial load. Spoligotyping identified a previously unreported spoligotype, indicating infection with a novel or hidden *Mtb* strain. This represents the second fatal TB case from the same park after 11 years, suggesting possible long-term persistence or undetected circulation. Together with serological evidence, these findings indicate re-emergence or ambiguous maintenance of TB within the population. The detection of a novel strain, combined with potential disease dissemination risks associated with translocation practices, highlights gaps in understanding transmission dynamics and need for enhanced surveillance and integrated One Health approaches to mitigate risks to elephant conservation and public health.

Reintroduction of Mount Kenya guerezas (*Colobus guereza kikuyuensis*) into Karura Forest Reserve: Translocation success, lessons and challenges

Poster - Abstract ID: 250

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Conservation translocation is an important tool for restoring threatened populations, mitigating human-wildlife conflict and re-establishing ecological processes. Between February 2014 and March 2016, 122 Mount Kenya guerezas (*Colobus guereza kikuyuensis*) in 22 family groups were reintroduced to Karura Forest Reserve in Nairobi from the fragmented agroecosystems of Kipipiri, Nyandarua County. The reintroduction was prompted by persistent crop-raiding conflicts resulting from the loss of riverine forests. It coincided with an indigenous forest restoration programme led by the Friends of Karura Community Forest Association. The exercise involved release site selection, community sensitisation at both the source and release sites, habituation, capture, transportation, acclimatisation, release and long-term post-release monitoring. Whole family units were habituated to ground foraging using baited traps for 3-15 weeks. The groups were captured during the early morning hours and transported within one hour of capture. The monkeys were released into a large acclimatisation cage (200m²) for 3-5 days and released simultaneously to preserve social cohesion. Initial adaptation to canopy movement presented significant challenges resulting in five fatal falls. Post-release monitoring indicated successful ecological adaptation, with 86% of family groups settling in riverine habitats within six months of release. A notable behavioural observation was the formation of polyspecific associations with resident Sykes' monkeys (*Cercopithecus mitis kolbi*). By June 2026, the reintroduced population had increased to 265 individuals distributed across 30 family groups, reflecting sustained reproduction, high survival rate and successful recruitment. The Karura reintroduction provides a practical framework for maximising the success of arboreal primate translocations.

Rewilding a Ghost Forest: The translocation of a neotropical forest insectivorous bird

Poster - Abstract ID: 36

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Many neotropical forests are affected by the *Empty Forest Syndrome*. Passive acoustic monitoring (PAM) can help assess the loss of vocal species such as birds and inform rewilding efforts. Avian translocations are a tool increasingly used in rewilding, but little implemented in the Neotropics and most work has been focused on non-passerines. Here we used PAM to confirm the absence of a priority species for translocation, the Ceara Gnateater (*Conopophaga cearae*), following the success of the Grey-breasted Parakeet (*Pyrrhura griseipectus*) reintroduction. Our study sites were the “ghost forest” of Serra da Aratanha and the mountain range of Serra de Baturité, in the state of Ceará, Brazil. We applied BirdNET detection-algorithms to a data set of 6.336 hours of sound recordings (4.224 from Baturité, 2.112 from Aratanha) collected by SwiftOne autonomous recorders from February to April 2025. We confirmed that the Ceara Gnateater is missing from Aratanha and targeted it for translocations from Baturité to Aratanha. During June and July 2025, we captured 30 individuals, of which 27 were successfully released. We utilized radio telemetry to track 3 individuals for the initial 5 weeks and returned to Aratanha in early 2026 to monitor their first breeding attempts. Seven birds were detected 7 months post-release: a previously radio-tagged female, and 3 pairs which started building nests in late February 2026. This is an ongoing project that has already proved successful in the short-term, and is, to our knowledge, the first translocation of a forest understory insectivorous bird in the Neotropics.

Sourcing of Scottish broodstock to boost conservation of freshwater pearl mussel (*Margaritifera margaritifera*) in Wales

Poster - Abstract ID: 202

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1. Natural Resources Wales, 2. Naturescot

The freshwater pearl mussel is Critically Endangered in Wales, with a 2018 assessment estimating that the species will be extinct in Wales within two decades. Natural Resources Wales has instigated a long-term Freshwater Pearl Mussel Recovery Project, to deliver an integrated conservation programme across Wales. Following IUCN Translocation guidance, this focuses on a co-ordinated programme of habitat restoration, captive rearing, and release.

Captive rearing and release is an essential component of the strategy as natural recruitment cannot be guaranteed and is difficult to monitor. The first captive reared mussels were released in 2025. However, the remaining adult Welsh mussels used as broodstock show poor fertility. Scaling up releases of captive reared mussels requires sourcing further broodstock from suitable populations outside of Wales.

Screening of potential donor populations used five criteria: use of trout as a host; sufficient population size to provide genetic diversity and minimise impacts on donor populations; recruitment in the wild; reasonable climatic similarity; and potential availability. No suitable English populations were identified, but four candidate populations have been identified in Scotland using NatureScot data.

NRW is in discussions with NatureScot to source mussels from Scotland, to increase the success rate of the breeding programme, whilst ensuring that the removal of any mussels from Scottish populations is sustainable and carried out with minimal impact. Here we show the decision process followed, taking into account the requirements of the Scottish Code for Conservation Translocations which sets the policy framework for this work.

Species on the Edge - translocation as a part of a multi-taxa conservation programme

Poster - Abstract ID: 207

***Dr. Fiona Strachan*¹, *Mr. Craig Macadam*², *Dr. Rebecca Lewis*², *Ms. Sally Morris*², *Ms. Sarah Bird*³,
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1. NatureScot, 2. Buglife - The Invertebrate Conservation Trust, 3. Plantlife, 4. RSPB

Species on the Edge (SotE) is a multi-partner, multi-taxa conservation programme led by NatureScot working with seven eNGOs. It is working to secure a future for 37 threatened species dependent on Scotland's coast and island habitats and is receiving £4.5m of funding from the National Lottery Heritage Fund towards an overall programme budget of £6.2m. Delivering nine species projects across seven project areas, SotE is taking a partnership approach to delivering conservation action, widening participation in conservation and strengthening how we work together across the sector. Translocation is a focus in a number of areas for invertebrate and plant species - Tadpole shrimp, Medicinal leech and endemic Shetland hawkweeds, with activity led by Buglife and Plantlife. The programme is in its final year of its 4.5 years of delivery. This poster will set out what translocation has achieved for these species through SotE for these priority species, how this contributed to SotE's aims and outcomes and where these species projects will lead to next.

The hidden cost of translocation on post-release survival of an endangered reptile, the Mojave Desert tortoise (*Gopherus agassizii*): A Before-After-Control-Impact (BACI) analysis

Poster - Abstract ID: 249

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Mitigation translocations are critical in minimizing negative impacts of anthropogenic development on wildlife, but the act of translocation comes with survival costs. For long-lived species, small reductions in post-release survival can affect long-term population performance. Using a before-after-control-impact (BACI) design, we quantified the impact of translocation on post-release survival of an endangered reptile of the Southwestern U.S.A., the Mojave Desert Tortoise (*Gopherus agassizii*), analyzing survival of 1,281 adult tortoises across 11 sites and 15 years. BACI ratios revealed that translocated tortoises exhibited annual survival probabilities 3% (1 – 9%) lower than residents, representing the hidden cost of translocation on post-release survival of tortoises. We estimated the time required for translocated tortoise survival to recover to baseline conditions and found that mortality from translocation was substantial for 15 months post-translocation and annualized survival probabilities became indistinguishable from non-translocated residents by 34 months post-release. Simulations of future translocation projects revealed that managers might expect an additional cumulative mortality of 8% (0 – 13%) within the translocated cohort relative to the resident cohort across a 72-month post-release period. Additionally, the translocated cohort was projected to achieve annualized survival probabilities within 1% of the resident cohort by 20 months (11 – 48) post-release. The hidden cost of translocation was measurable only through a rigorous statistical design. While this mortality penalty to translocation is small compared to most translocated species studied, it must be factored into decisions about mitigation translocations. In some contexts, such as population establishment in protected areas with long-term management commitments, such costs are warranted.

The lived experience of renewed coexistence with the European beaver (*Castor fiber*) in the Netherlands

Poster - Abstract ID: 144

Mrs. Miranda Hoeksema¹

1. Ecologist

Despite positive effects of conservation translocations on nature restoration (Law, Gaywood, Jones, Ramsay & Willby, 2017), stakeholder willingness for coexistence is not self-evident. In the Netherlands there is resistance to reintroduced beavers since damage to dikes occurred. This research focuses on beaver stakeholders' lived experiences; context-dependent personal experiences and knowledge acquisition that determine whether an individual's behavior is aimed at a harmonious, renewed coexistence with the beaver or, conversely, contributes to a conflict situation.

Auster, Barr & Brazier's research in 2021 into the reintroduction of beavers led them to the term 'renewed coexistence' which refers to the situation when people have to learn to live with a species again. Renewed coexistence can be harmonious or be fraught with conflict. Little research has been done into renewed coexistence. That is remarkable, because a harmonious way of renewed coexistence appears to be the key to the success of a reintroduction (Auster, Barr & Brazier, 2021).

Two real-life cases will be compared and analysed. By analysing where resistance to or the willingness for coexistence come from, we hope to discover tools to stimulate a harmonious way of coexistence within conservation translocations.

Two conceptual models will be used:

The 'Concept of Lived Experience of sustainable development' (Nettenbreijers, Tromp, & Perez, 2024; Abbot & Wilson, 2015), applied in this research to renewed coexistence with regard to beavers.

The 'Levels of Conflicts conceptual model' maps causes of conflicts within a process of conservation translocations (Zimmermann, McQuinn & Macdonald, 2020).

The One Plan Approach: Improving translocation planning through integrated planning processes and tools

Poster - Abstract ID: 146

Ms. Stephanie Winton¹, Dr. Phil Miller², Dr. Lisa Faust³, Mr. Paul Senner³, Dr. Lucy Kemp⁴

1. Wildlife Preservation Canada, 2. IUCN SSC Conservation Planning Specialist Group, 3. Lincoln Park Zoo, 4. Mabula Ground Hornbill Project

The One Plan Approach to species conservation (OPA), conceived and promoted by the IUCN SSC Conservation Planning Specialist Group (CPSG), facilitates the development of collaborative management strategies and actions by all responsible parties and including all populations of a species, whether inside (in-situ) or outside (ex-situ) their natural range. This approach results in one comprehensive plan, bridging the gap between in-situ and ex-situ population management. By integrating planning efforts and fostering collaboration between communities, OPA has been shown to slow, and in many cases reverse, the decline of threatened species.

When designing conservation translocations, it is important to employ evidence-based integrated planning that increases recipient population recovery without compromising the genetic or demographic stability of the source population. CPSG's conservation planning processes bring together a broad range of participants to evaluate strategies, including translocation, and recommend achievable actions to conserve species in the wild. Science-based tools and processes such as Population Viability Analysis and Ex-situ Conservation Assessment help inform decisions about if and when to use translocation as a management tool and to guide the proper management of the source population to meet in-situ needs. Modelling both recipient and source population dynamics helps managers set key translocation targets such as duration, frequency, and intensity of releases that collectively define effective translocations.

We present CPSG processes and tools that complement conservation translocation planning through case studies for species including bowmouth guitarfish, Hungarian meadow vipers, and Mexican wolves.

The physiological consequences of translocation in Przewalski's horse (*Equus ferus przewalskii*)

Poster - Abstract ID: 254

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1. University of Manchester, 2. Hortobágy National Park, 3. University of the Basque Country

Wildlife translocations are a vital tool in species management and conservation, yet outcomes remain variable and failures often go underreported. One potential reason for failure is the stress individuals experience during capture, transport and release, which can manifest through costly physiological, immunological and behavioural responses. Here, we assess these responses in Przewalski's horse (*Equus ferus przewalskii*) across three separate translocation events using a toolbox of faecal stress, metabolic, and immunological biomarkers. Following release, glucocorticoid and thyroid concentrations increased, indicating acute physiological stress and elevated metabolic demand. These responses were accompanied by marked changes in immune function, including shifts in pro-inflammatory cytokines IL-6 and TNF-α and the anti-inflammatory cytokine IL-10. Our findings show that translocations can elicit substantial physiological and immune responses that may influence post-release performance. Integrating fitness proxies into translocation monitoring programmes could improve our understanding of recovery post-release and support more effective evidence-based management.

The role of welfare monitoring in the conservation of the scimitar-horned oryx (*Oryx dammah*) in the wild and captivity

Poster - Abstract ID: 64

***Mr. Ewan Davies*¹, *Dr. Heidi Mitchell*², *Dr. Judith Lock*³**

1. University of Kent, 2. Marwell Wildlife, 3. University of Southampton

Welfare assessments can further support conservation efforts as changes in individuals' behaviours and body condition act as an early warning to population level threats within the wild and captivity. The scimitar-horned oryx (*Oryx dammah*) is a large arid-adapted antelope which was classified as Extinct in the Wild by the IUCN during the 1990s. However, conservation actions since the 1970s have resulted in a large captive population and multiple reintroductions across their native range, leading to the scimitar-horned oryx being downlisted to Endangered in 2023. Despite this success, there are no long-term monitoring programmes assessing the welfare of wild oryx. This study addressed this gap by adapting a captive Animal Welfare Assessment Grid (AWAG) to assess and then compare the welfare of wild and captive scimitar-horned oryx in Dghoumes National Park and Marwell zoo. Linear models and Principal Components Analysis found that there were significant differences in how welfare parameters impacted the welfare of wild and captive oryx. The AWAG elucidated multiple welfare issues across each population including water stress in wild oryx and stereotypical behaviours such as horn rubbing in captivity. This study provides a foundation for the application of the AWAG to compare captive and wild individuals, in particular to other arid-adapted antelopes, including the slender horned gazelle (*Gazelle leptocerus*).

Tools for data-driven recovery: Enhanced PopLink studbook software for conservation translocation programs

Poster - Abstract ID: 81

Dr. Lisa Faust¹, Mr. Paul Senner¹

1. Lincoln Park Zoo

Effective data management is essential to adaptively managing conservation translocation programs, especially those that use *ex situ* breeding in their recovery strategy. Studbook databases can be used to track information on individually identified animals, and are important tools to both carefully plan translocation programs and evaluate their success. In 2026, we released a major update of PopLink, free software for maintaining studbooks, with new features designed to support conservation translocation programs. PopLink's core data tracking focuses on demographic life events (dates of births, deaths, moves between locations), parentage, and related data. A key new feature of PopLink allows users to track resightings of released or wild individuals, including tools to import resightings data, build tables with custom resightings fields, and export those data for analysis in other software. PopLink also now allows for detailed tracking of reproductive events, to better track the successes (and failures) in the steps before offspring production. Finally, the new, easy import of data to start or update studbooks means that data entry is streamlined. Program managers can use PopLink to manage standardized data across a program's history, analyze those data using automated reporting tools, and export data for analysis in other software (PMx, MARK) to better manage their program. This presentation will give an overview of this freely available conservation tool, highlighting its new features and sharing examples of how conservation translocation practitioners are using it to adaptively manage their programs.

Translocation of Eurasian beavers (*Castor fiber*) in Britain: From conflict to conservation success

Poster - Abstract ID: 230

***Dr. Romain Pizzi*¹, *Dr. Roisin Campbell-Palmer*²**

1. Zoological Medicine Ltd / Beaver Trust, 2. Beaver Trust

Eurasian beavers (*Castor fiber*), a large charismatic keystone species, were the first mammal to be reintroduced and granted official protection following their extinction in Britain several centuries ago. Despite the success of the Scottish Beaver Trial, founder beavers could not repopulate Scotland due to geographic barriers. The majority of wild beavers in Britain are descended from founders that were unofficially established, originating from releases or escapes from captive projects. While their return has generated strong public and conservation support, it has also led to conflict with some landowners, largely due to limited early consultation and engagement.

In recent years, many beavers in England have been established through enclosed projects using individuals translocated from Scotland under licence from NatureScot and Natural England, following IUCN guidelines and best practice protocols. These include public engagement, risk assessment, health screening, welfare evaluation, and post-release monitoring. Since 2019, over 350 beavers have been translocated as part of conflict mitigation efforts.

Survival analysis using Kaplan–Meier estimates indicates high post-release success. Adult beavers exhibited a 90.42% probability of surviving one year after translocation (95% CI: 85.03–95.82%), while overall survival across all age classes, including kits, was 86.69% (95% CI: 82.26–91.13%).

These findings contrast with earlier reports of poor survival and demonstrate that successful outcomes are achievable when translocations follow rigorous best practices, supporting long-term beaver recovery. Key contributing factors include effective quarantine, high standards of veterinary care, careful site selection, and ongoing monitoring, alongside transparent stakeholder engagement to reduce conflict and improve long-term conservation outcomes across Britain.

Treatment, rearing and release of orphaned Sri Lankan elephants (*Elephas maximus maximus*)

Poster - Abstract ID: 233

Dr. Malaka Abeywardana¹, Dr. Kalani Samarakoon², Dr. Romain Pizzi³

1. Udawalawa Elephant Transit Home, Department of Wildlife Conservation, 2. Department of Wildlife Conservation, 3. Rewilding Medicine

The Sri Lankan elephant (*Elephas maximus maximus*) is listed as an endangered subspecies on the IUCN Red List. In 2024 the population was estimated at 7,451 individuals. These elephants face multiple threats, including habitat degradation and habitat loss. Every year, hundreds of elephants die due to human–elephant conflict, and many are injured, with young calves often becoming orphaned. Over the last 30 years, from 1995 to 2025, the Department of Wildlife Conservation has used a dedicated facility, the Elephant Transit Home, in Udawalawa National Park, for the treatment, rearing, and return to the wild of elephants received from across Sri Lanka. The centre has received 498 young elephants to date. Of the cases with a known history, the most common cause, constituting 18% of admissions, was falling into farm wells, trenches, canals, and other man-made obstacles. Human conflict causes such as the mother being shot, calves being shot, explosives, snares and vehicle collisions accounted for a further 17% of admissions. A total of 188 elephants have been successfully released back into the wild, bolstering the resident population in the national park. Only 18 confirmed deaths have been recorded post-release in the last 30 years, while 17 confirmed births have been recorded among the females released back in the wild. Treatment, rearing and release to the wild has resulted in over a 90% post-release survival rate of translocated Sri Lankan elephant calves.

Oral – Full

A global genetic atlas for the bowmouth guitarfish informs conservation translocations through the SharkRay360 network

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 220

Dr. Emily Humble¹, Dr. Kevin Feldheim², Ms. Nancy Pham³, Dr. Linda Penfold³, Dr. Steve Kessel⁴

1. The University of Edinburgh, **2.** Field Museum, **3.** SEZARC, **4.** Shedd Aquarium

The bowmouth guitarfish (*Rhina ancylostomus*) is one of the ocean's most endangered vertebrates, yet almost nothing is known about its genetic diversity or population structure, either in wild populations or in the many individuals held in aquaria worldwide. Through SharkRay360, an international partnership of aquaria, researchers and conservationists, we are addressing this gap to directly inform conservation planning and support the translocation of individuals back into the wild.

Drawing on *in situ* and *ex situ* samples across the species' range, together with data generated at source by in-country collaborators, we present the first global genetic atlas for the species. We reveal two major phylogeographic groups separated by the Indian Ocean barrier, a pattern with direct implications for defining management units. These findings are already shaping breeding decisions and guiding the selection of genetically appropriate release locations.

SharkRay360 demonstrates how trusted global networks linking aquaria, field programmes, and in-country sequencing partners can rapidly deliver critical genetic data for logistically challenging species and that genetically informed elasmobranch translocations are possible.

A head start for burrowing owls: Ten years of translocations in Alberta, Canada

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 219

***Mr. Graham Dixon-MacCallum*¹, *Ms. Lacey Hébert*¹, *Dr. Andrew MacIntosh*¹, *Dr. Troy Wellicome*²**

1. Wilder Institute, 2. University of Alberta

Burrowing owls (*Athene cunicularia*) are at-risk throughout much of their distribution in western North America and in Canada they are listed as Endangered. For Canada's Burrowing Owl populations, the period from juvenile to 1st-year adult is a limiting life-stage. We test if this population bottleneck can be circumvented with head starting. We locate burrowing owl nests each spring and bring youngest brood-members into human care > 20 days after hatching. We hold these owlets over winter and soft-release them as adults in spring. We monitor head-started owls throughout the nesting season and release a subset carrying satellite transmitters to track movement and inform survival estimates. To better understand causes of mortality, in 2024 we began swabbing remains from depredated owls for predator DNA and analyzed regurgitated pellets from head-started and wild owls to better understand release-owl diet. Between 2016 and 2025, we brought 173 owlets into human care and released 171 owls: 80 female-male pairs, and 11 lone females. Sixty-two of 80 pairs released (78%) reproduced successfully, fledging 339 owlets. Median post-release survival for owls carrying transmitters was 146 days (KM estimate; 124 – 174 days 95% CI). We sampled 11 head-started owl mortalities and swabbed 3 transmitters removed from live owls as controls. Predator DNA lab work is ongoing. Pellets from release owl nests had lower diversity of vertebrate prey than pellets from wild owl nests. It is promising that most released owls reproduce successfully but there is room for improvement in post-breeding survival and release-owl diet.

A systems approach to identifying barriers and enablers to more and better conservation translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 102

Prof. George Holmes¹, Dr. Filippo Marino¹

1. University of Leeds

Conservation translocations can generate profound change, both positive and negative, within socio-ecological systems. Whilst practice has improved in recent years, there is still work to do, particularly in realising the positive socio-economic potential. Part of this is a lack of systems thinking, of understanding the complex interacting socio-economic factors that allows a translocation to take place, and to improve efficiency and efficacy at the national scale, across multiple levels (from on-the-ground practice to policy making) and dimensions (from genetics to politics). We aimed to identify barriers and enablers to more and better conservation translocations in England, a country where there is growing interest in such measures. We used a systems thinking approach combined with a multipronged methodology comprising literature review, key informant interviews, and thematic analysis. We identified a multitude of barriers and enablers falling within five main subthemes: biological (relating to the properties of the species), ecological (relating to wider ecological conditions), socio-political (wider social trends and attitudes), institutional (issues beyond individual projects) and organisational (issues within projects). A transformation of the translocation system in England, meaning the interactions between multiple individual projects and organisations, regulatory bodies, funders, and other key stakeholders, is needed to advance and bolster translocation practice. We recommend key leverage points, i.e. points of change holding great potential for improving the translocation system in England, such as a central data repository and an online hub, along with a paradigm shift within the translocation discipline and practice.

Advancing rhinoceros translocation management through animal welfare monitoring research

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 210

***Dr. Friederike Pohlin*¹, *Prof. Emma Hooijberg*², *Dr. Peter Buss*³, *Dr. Marion Leiberich*², *Dr. Markus Hofmeyr*⁴, *Dr. Dave Cooper*⁵, *Dr. Leith Meyer*⁶**

1. University of Veterinary Medicine Vienna, 2. University of Pretoria Faculty of Veterinary Science, 3. South African National Parks, 4. Wildlife Conservation Network, 5. African Wildlife Vets, 6. Massey University

Conservation translocation is a central strategy for rhinoceros recovery, but it places substantial physiological demands on individual animals. Health assessments are often focused on disease screening, while the cumulative impacts of capture, transport, temporary captivity, and release into a novel environment are often overlooked. These stressors can compromise animal welfare, reduce resilience, and increase susceptibility to disease, ultimately affecting conservation outcomes.

Here, we provide an overview of a multiyear research effort focused on understanding and improving rhinoceros welfare during translocation, with particular emphasis on transport-associated challenges. Using a multivariate veterinary monitoring approach, we quantified physiological responses to long-distance transport and associated management practices to identify the main challenges to animal welfare during rhinoceros translocation.

Key challenges included dehydration, protein catabolism, muscle exertion, transport-associated dysbiosis, and impacts on reproductive success. These responses indicate that translocation stress itself may act as a precursor to morbidity, even in animals that pass conventional disease screening. Our findings further identify capture as a particularly critical stress phase and demonstrate how veterinary monitoring can drive practical innovations in translocation protocols, including refinements in sedation strategies or feeding management.

By quantifying physiological responses to different translocation factors and management practices, these studies identified clear intervention points for protocol refinement and improved outcomes. This highlights how science-driven veterinary monitoring can extend beyond disease screening to establish welfare as a main objective of conservation translocation.

Age of release matters: Evidence across taxa demonstrates increased translocation success for younger birds

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 124

***Dr. Karl Miller*¹, *Mrs. Adrienne Fitzwilliam*², *Dr. Erin Ragheb*², *Dr. Andrew Schumann*³**

1. Fish and Wildlife Research Institute, Florida Fish & Wildlife Conservation Commission, 2. Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, 3. White Oak Conservation

Release age is often cited as an influential factor that warrants study, but no general guidelines exist to improve translocation outcomes. Recent research on neuroplasticity and animal development suggests that younger animals may make better candidates for translocation. We tested this hypothesis by conducting a systematic literature review and two release experiments with imperiled bird species. Our literature review of manipulative studies comparing >1 age class found that most (68%) reported higher post-release survival for birds translocated in younger age classes. In a reinforcement, we released 265 captive-reared Florida Grasshopper Sparrows (*Ammodramus savannarum floridanus*). Thirty-two of 181 (18%) sparrows released as hatch-years recruited (i.e., confirmed paired and breeding), whereas only 4 of 84 (5%) sparrows released as second-years recruited. When mass was held at its mean value, the odds of recruitment were 4.65 times (95% CI: 2.04, 11.75) higher for hatch-year birds. Despite being translocated only a few weeks before the onset of breeding, second-years failed to recruit into the breeding population at rates comparable to birds translocated 7 months earlier as nutritionally independent fledglings. In another reinforcement, we translocated 62 wild Florida Scrub-Jays (*Aphelocoma coerulescens*). Again, birds released as hatch-years survived and recruited at higher rates than birds released as second-years, but differences were not significant, perhaps due to the social behavior of this cooperative-breeding species. We recommend that avian translocation studies incorporate age of release as a covariate. Releasing younger age classes may be a strategic choice in situations where experimenting with multiple age classes is not possible.

An egg-citing challenge: Releasing dark bordered beauty into Scotland's Cairngorms National Park

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 80

Ms. Georgina Lindsay¹, Mr. James Silvey², Mx. Project team Rare Invertebrates in the Cairngorms Project²

1. Royal Zoological Society of Scotland, 2. RSPB

The dark bordered beauty moth (*Epione vespertaria*; DBB) is one of the UK's rarest moth species and is considered Endangered in the UK, with populations now restricted to Strathspey and Deeside in Scotland and York in England. Threats to the species include habitat loss and fragmentation, overgrazing, deforestation, and the decline of suitable larval foodplants, including aspen in Scotland and creeping willow in England.

In 2022, the Royal Zoological Society of Scotland (RZSS), the Rare Invertebrates in the Cairngorms project (RIC) and the UK DBB Steering Group, began a conservation breeding-for-release programme for the species at RZSS Highland Wildlife Park. The project aims to reverse the species' decline and reintroduce DBB to its former range. Since 2022, the project has released over 7,000 DBB at various life stages (eggs, caterpillars, and adults) across two release sites. One release site has received releases of all life stages, and survival has been confirmed through monitoring of adult moths during July/August. Further releases of caterpillars and adult moths are planned between June-August 2026 as part of the ongoing reintroduction programme.

The second release site is being used as an innovative egg-only release trial to determine whether this is a viable translocation method for the species. In April 2026, 4,000 DBB eggs were released at this site, and RIC partners will return in July/August this year to monitor whether any individuals survived to adulthood.

Through conservation breeding, targeted releases, and ongoing monitoring, the project aims to support the recovery and long-term survival of DBB.

Are we ready to translocate Ethiopian wolves? Evidence, gaps, and risks in planning a first-time conservation translocation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 212

***Dr. Jorgelina Marino*¹, *Prof. Claudio Sillero*¹**

1. WildCRU, Oxford University

Conservation translocations are increasingly used to recover threatened vertebrate species, but for some taxa key biological and logistical prerequisites remain poorly understood. The Ethiopian wolf (*Canis simensis*), an Afroalpine specialist and Africa's most threatened carnivore, is a striking example: it has never been translocated or kept and bred in captivity, raising fundamental questions about readiness for future interventions. We synthesise current knowledge and key gaps relevant to Ethiopian wolf translocations within a practical decision-making framework, focusing on genetic, ecological, and behavioural considerations. We examine emerging evidence of natural range expansion, including a recent colonisation event, and the successful rescue, treatment, and release of an injured individual, showing that capture and handling are feasible. However, major uncertainties remain, particularly around habitat suitability and potential interactions with African wolves (*Canis lupaster*) in areas where Ethiopian wolves have been lost. An interdisciplinary assessment of a potential pilot reintroduction site further shows how combining ecological and social data can overturn initial assumptions. We also highlight how strong genetic and demographic structuring across Ethiopian wolf populations complicates the choice of suitable source populations. Finally, we compare the opportunities and risks associated with translocation versus captive breeding in light of current recovery planning.

We identify the priority research, risk assessments, and decision points needed before translocations can be considered, and emphasise the value of an integrative metapopulation approach for species with no prior history of such interventions.

Beyond translocation: Establishing self-sustaining gaur (*Bos gaurus gaurus*) populations in central Indian landscape

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 169

***Mr. Ritesh Vishwakarma*¹, *Dr. Bilal Habib*¹, *Dr. Parag Nigam*¹**

1. Wildlife Institute of India, Dehradun

The reintroduction of Indian gaur (*Bos gaurus gaurus*), has gained momentum as a conservation strategy to restore ecological function and rebuild locally extinct populations in the Central Indian landscape.

As a keystone species, gaur significantly influences vegetation dynamics, nutrient cycling, and predator–prey interactions, particularly supporting tiger (*Panthera tigris*) populations. However, challenges including habitat fragmentation, disease risk, and anthropogenic pressures persist. Establishing self-sustaining populations requires integrating ecological assessments, genetic management, and long-term monitoring within a landscape-scale framework.

This study synthesizes outcomes from multiple reintroduction, supplementation, and feasibility initiatives across key tiger reserves, including Bandhavgarh, Sanjay, Ratapani, and Virangana Durgavati. Empirical evidence from Bandhavgarh and Sanjay demonstrates positive demographic trajectories, successful breeding, and landscape-level dispersal, indicating early establishment of free-ranging populations. Notably, inter-reserve movement highlights the functional importance of habitat connectivity and corridor conservation. Supplementation efforts in Bandhavgarh address emerging genetic bottlenecks, reinforcing the role of adaptive management in long-term population viability.

In contrast, failed translocation attempts, such as in Guru Ghasidas National Park, underscore the consequences of inadequate scientific planning and protocol adherence. Feasibility assessments in southern and central reserves further emphasize the importance of habitat suitability, population viability analysis, and stakeholder engagement prior to reintroduction.

This study highlights that moving beyond translocation towards persistence demands connectivity-driven planning, science-based interventions, and adaptive management to ensure durable conservation outcomes.

Bridging theory and practice in conservation translocations: An integrative framework for assessing success

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 74

***Ms. Nadline Kjelsberg*¹, *Dr. Jean-Baptiste Mihoub*², *Dr. Eva Malecore*¹, *Dr. Filipa Coutinho Soares*³,
*Prof. Francois Sarrazin*², *Prof. Markus Fischer*¹**

1. University of Bern, 2. Sorbonne University, 3. University of Lisbon

Evaluating the ecological success of conservation translocations is challenging, as inconsistent and short-term criteria may prove misleading over the long term. We conducted a global review of plant conservation translocations to identify how success is assessed in practice and investigated its alignment with components of internationally recognized conservation frameworks. Field-based assessments were dominated by short-term indicators—survival, individual growth, and recruitment—whereas processes underpinning long-term persistence, including genetic diversity, dispersal, connectivity, and ecosystem functioning, were rarely considered. Comparison with success criteria embedded in the IUCN Red List, Green Status of Species, and Conservation Translocation Guidelines revealed frequent indirect alignment and limited explicit integration of dynamic and spatial processes governing long-term viability. At the same time, practitioners employed operational proxies and benchmarking approaches that provide important aspects of individual performance. By integrating both theoretical and field-based perspectives, we propose an integrative framework that aligns monitoring criteria with species life-history strategies and long-term persistence processes across short-, medium-, and long-term timescales. By bridging operational monitoring with globally recognized conservation frameworks fostering ecological and evolutionary dimensions, this approach supports more coherent, policy-relevant, and forward-looking evaluation of conservation translocation outcomes. Additionally, ongoing work explores the use of success criteria for animal conservation translocations to extend these findings to fauna.

Building evolutionary resilience: A framework for managing safe haven populations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 155

***Dr. Alex Slavenko*¹, *Dr. Andrew Weeks*¹, *Dr. Collin Ahrens*¹, *Prof. Adrian D. Manning*²**

1. Cesar Australia, 2. The Australian National University

Safe haven populations are widely used to mitigate the impacts of invasive predators on threatened species, yet their isolation often disrupts evolutionary processes and can leave them vulnerable to environmental change and stochastic events. We present a framework for integrating evolutionary principles into safe haven management, termed 500-in-5, which establishes a metapopulation of >500 breeding individuals distributed across five geographically separated safe havens spanning environmental gradients. Using genetic and demographic simulations for two threatened Australian mammals, we demonstrate how this approach can enhance adaptive potential and persistence. Spatially explicit population models predict that many existing safe havens are at risk of collapse within decades. However, genetic simulations show that selection on standing genetic variation can drive fitness gains within tens of generations, improving population resilience to novel conditions. Integrating these processes reveals that safe haven networks promote adaptation and resilience, substantially improving long-term persistence and providing robust sources for reintroductions.

Challenges and approaches for the translocation and reintroduction of captive-reared, social birds. Release techniques and post-release management illustrated by the red-billed chough and echo parakeet

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 175

***Prof. Carl Jones*¹, *Ms. Elizabeth Corry*², *Ms. Laura Gardner*², *Mrs. Alison Hales*³**

1. Durrell Wildlife Conservation Trust, 2. Wildwood Trust, 3. Paradise Park

Traditional avian translocation methods are largely derived from experience with waterfowl and game birds—species characterized by precocial young and predominantly innate behaviours. In contrast, translocating highly social species with altricial young and extended parental care has proven significantly more challenging due to their reliance on learned behaviours. Drawing on long-term management experiences with the Echo Parakeet (*Psittacula eques*) and Red-billed Chough (*Pyrrhocorax pyrrhocorax*), we highlight the critical importance of safeguarding early learning and social interactions during the translocation process. When introducing birds to areas lacking established conspecifics, founders cannot naturally acquire vital behavioural traditions. Consequently, we demonstrate that extended, intensive post-release support may be required—potentially spanning several generations—to allow these cultural traditions to develop and stabilise. Ultimately, we argue that translocation strategies for social birds must explicitly account for ontogeny and social learning, recognizing that prolonged post-release investment is often essential for population establishment.

Co-producing a conservation and translocation action plan for an island-endemic passerine - Nosa' Luta (*Zosterops rotensis*, Rota white-eye)

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 26

***Dr. John Bender*¹, *Ms. Annika Andersson*², *Ms. Edilynn Benjamin*³, *Ms. Dana Calvo*⁴, *Mr. Jamie Copsey*⁵, *Dr. Sarah Faegre*⁶, *Mr. Henry Fandel*², *Mr. Phil Hannon*⁷, *Ms. Anne Heitman*⁸, *Ms. Diana Benavente Hocog*⁹, *Ms. Ashton Jerger*¹⁰, *Dr. Elizabeth Kelley*¹¹, *Dr. Kathayoon Khalil*¹⁰, *Ms. Emma Koepp*⁸, *Mr. Richard Manglona*¹², *Mr. Charles Mendiola*², *Dr. Phil Miller*⁵, *Mr. Brien Nicholas*³, *Mr. C.J. Paulino*¹³, *Mr. Mark Rabauliman*¹⁴, *Mr. Cecilio Raiukiulipiy*¹⁵, *Ms. Alexi Rebuénog*¹⁶, *Dr. Haldre Rogers*¹⁷, *Ms. Hether Scott*¹⁸, *Mr. Valentino Taisacan*¹⁴, *Mr. Robert Ulloa*², *Ms. Dacia Wiitala*²**

1. Pacific Bird Conservation, 2. Commonwealth of the Northern Mariana Islands Division of Fish and Wildlife, 3. Commonwealth Bureau of Military Affairs, 4. Luta Soil and Water Conservation District, 5. IUCN SSC Conservation Planning Specialist Group, 6. University of Washington, 7. San Diego Zoo Wildlife Alliance, 8. Sedgwick County Zoo, 9. Northern Marianas College, 10. Columbus Center for Wildlife Conservation, 11. Saint Louis Zoo, 12. CHamoru Island Carver Art, 13. Tåno, Tåsi, yan Todu, 14. Commonwealth of the Northern Mariana Islands Office of the Mayor of the Northern Islands, 15. Marianas Water Works, 16. Friends of Mariana Trench, 17. Virginia Tech, 18. North Carolina Zoo

Conservation planning for island-endemic species increasingly requires decision-making under uncertainty, limited data, and diverse stakeholder input. The nosa' Luta (*Zosterops rotensis*, Rota white-eye), a Critically Endangered passerine endemic to the island of Luta in the Commonwealth of the Northern Mariana Islands (CNMI), is subject to these challenges. To facilitate transparent and actionable conservation decisions for Luta, we initiated a structured, multi-phase planning process designed to integrate local, historic, and ecological science with stakeholder priorities. Our organizing team convened two in-person, three-day multi-stakeholder workshops on Luta with community leaders, CNMI agencies, federal partners, NGOs, researchers, and zoo-based practitioners. Using an IUCN SSC Conservation Planning Specialist Group (CPSG) framework, participants co-developed a recovery vision, mapped biological and socio-institutional factors affecting feasibility, and used structured voting to rank threats and uncertainty drivers. The group also outlined social and capacity challenges that could affect conservation action on Luta. These outputs were then translated into a population viability analysis (PVA) to evaluate plausible future scenarios and assess the expected consequences of management pathways, including potential translocation-related strategies. We will present the planning architecture, the factor ranking outcomes, and how results were synthesized into a revised, implementation-ready conservation action plan. Critically, the process emphasizes local leadership, transparency, and trust-building as foundational elements of effective translocation planning. This work represents the first single-species conservation planning process of its kind in the Mariana Islands and offers a replicable model for similar projects where conservation outcomes depend as much on social alignment and shared ownership as on biological data.

Collaboration-centered conservation translocations key to mountain bongo recovery in Kenya

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 73

Dr. Donna Sheppard¹, Mr. Solomon Wachiuri Muturi¹, Dr. Danica Stark¹

1. Wilder Institute Calgary Zoo in partnership with Rhino Ark Kenya Charitable Trust

To effectively stem the ongoing, accelerated loss of Earth's biodiversity, particularly in the species-rich tropics, conservation organizations have increasingly explored diverse solutions. In some instances, conservation translocations can provide a remedy for the recovery of species.

These approaches have traditionally focused on ecological aspects of recovery while overlooking or underestimating the importance of human dimensions. Yet, without meaningful engagement and ownership from all stakeholders to co-create a recovery programme, conservation translocations are destined for failure. In practice however, pitfalls with inclusive conservation emerge when bringing together disparate scientific and non-scientific perspectives, positionality, nature values, and worldviews.

We report on our role in Kenya's national recovery effort of endemic mountain bongo (*Tragelaphus eurycerus isaaci*), and our preparedness for bongo reintroduction within the Ragati Forest of Mt. Kenya. With fewer than 65 individuals remaining in the wild, population recovery of this Critically Endangered species relies on captive-bred populations to succeed. Success also depends on an approach devoted to meaningful, never-ending collaboration.

During this presentation, the audience will journey through challenges and triumphs of bongo population recovery in Kenya. I will share our experiences in evidence-based field research, comprehensive biodiversity monitoring, reintroduction science, and innovative community-driven pro-conservation strategies. I will share key stories reflecting the depth and diversity of built relationships forged during long-term community, government, private and NGO collaborations.

We have learned that - although time consuming - respectful, effective engagement with diverse voices mitigates threats, and reduces conflict, while increasing trust between natural resource users, government policy makers, and conservationists.

Conservation translocation of Plant Species with Extremely Small Populations (PSESP) in China: Case studies from Magnoliaceae

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 117

***Dr. Lei Cai*¹, *Ms. Siyue Xiao*¹, *Prof. Guifen Luo*¹, *Prof. Weibang Sun*¹**

1. Kunming Institute of Botany, Chinese Academy of Sciences

China harbors over 120 Magnoliaceae species, with Southwest China serving as one of the global centers of distribution and diversity for this family. Among these, 76 species are currently threatened, accounting for more than 50% of the 147 threatened Magnoliaceae species worldwide, including 10 Critically Endangered (CR), 26 Endangered (EN), and 40 Vulnerable (VU) species.

In recent years, China has advanced the concept of Plant Species with Extremely Small Populations (PSESP) and implemented comprehensive conservation initiatives. Beyond in situ and ex situ conservation measures, reintroduction and translocation programs have been undertaken for several critically endangered Magnoliaceae species, including *Pachylarnax sinica* (*Magnolia sinica*, CR), *Michelia lacei* (*Magnolia lacei*, EN), *Manglietia lucida* (*Magnolia lucida*, EN), and *M. ovoidea* (*Magnolia ovoidea*, CR).

Here we present detailed documentation of reintroduction and translocation efforts for these species, encompassing field surveys, germplasm collection, genetic diversity analysis, wild population restoration, and systematic monitoring ect. We anticipate that these translocation conservation actions will effectively facilitate species recovery and provide valuable reference cases for the protection of other typical PSESP, particularly within the Magnoliaceae family.

Conserving a regionally endemic iguana through national and regional translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 60

***Dr. Louise Soanes*¹, *Mr. Vaughn Boden*², *Ms. Jeanelle Brisbane*³, *Mr. Matt Goetz*⁴, *Dr. Jenny Daltry*⁵,
*Ms. Farah Mukhida*⁶**

1. RSPB, 2. Cayman Islands Department of Environment, 3. WildDominique, 4. Wilhelma Zoologisch-Botanischer Garten, 5. Re:wild and Fauna & Flora, 6. Anguilla National Trust

The Caribbean region has seen more reptile extinctions than anywhere else in the world, accounting for over 60% of all reptile species lost worldwide. Threats including invasive alien predators, overhunting and habitat destruction are well documented. More recently, the negative impacts of introduced non-predatory species have also been recognised. One such species introduction is the common green iguana (*Iguana iguana*) into the range of the Critically Endangered Lesser Antillean iguana (*Iguana delicatissima*) leading to hybridisation between the two species. To address the emerging threat of hybridisation and following the IUCN's Reintroduction and Translocation Guidelines, 21 Lesser Antillean iguanas were moved from mainland Anguilla to the uninhabited alien iguana-free offshore cay of Prickly Pear East between from 2015-2020. Ten sub-adults from the island of Dominica were also translocated to Prickly Pear East in 2021 to bolster the founder population. Post-release monitoring has indicated long-term survival of at least some of the translocated individuals and successful breeding at the translocation site. The translocated population on Prickly Pear East now represents one of only five sites where the Lesser Antillean iguana persists in the absence of the invasive common iguana. These findings provide valuable insights and guidance for future conservation translocations of (*I. delicatissima*) and related species.

Crossing the divide: Balancing in-situ and ex-situ needs of Extinct in the Wild species in pursuit of wild recovery

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 232

***Dr. Caitlin Andrews*¹, *Dr. Caio Kenup*², *Prof. Stefano Canessa*³, *Dr. Alex Wegmann*¹, *Prof. John Ewen*²**

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Recovery of Extinct in the Wild (EW) species involves a delicate balance between the ultimate goal of restoring wild populations and the ongoing need to preserve the ex-situ populations that serve as critical safeguards against extinction. With many ex-situ populations precariously small themselves, harvesting for translocation can jeopardize the species' long-term prospects if not conducted carefully. This poses a challenge for deciding how translocations can be designed to balance caution with bold conservation action to promote sustainable recovery across the in-situ/ex-situ divide. Here, we reflect on the pathway leading to the successful return of a species to the wild after nearly 40 years under human care. Using an individual-based population model, we link a multi-institutional zoo population to a newly establishing wild population to inform ongoing translocation strategy in the face of the high uncertainty inherent to EW species. Bayesian inference enables initial projections to be made based on limited baseline knowledge, while allowing new information to be rapidly integrated as data accrues following first wild releases. This framework also lays the foundation for the future, providing a tool to assess suitability, feasibility, and readiness of next steps aimed at expanding both the in-situ and ex-situ populations. Overall, our findings highlight the importance of systematically linking wild recovery and ex-situ persistence in the delicate web of EW recovery action, answering the call of the IUCN SSC's newly launched Extinct in the Wild Action Partnership to increase awareness and action for the world's most threatened group of species.

Developing climate-resilient conservation translocations: Desert tortoise case study

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 44

***Dr. Ronald Swaisgood*¹, *Dr. Thomas Radzio*¹, *Dr. Talisin Hammond*¹, *Dr. Ellen Keaveny*², *Dr. Eric Riddell*², *Dr. Melissa Merrick*¹**

1. San Diego Zoo Wildlife Alliance, 2. University of North Carolina, Chapel Hill

The primary purpose of conservation translocations is to reestablish populations to secure species persistence, but reestablished populations may not persist if climatic and habitat conditions become unsuitable. How do we ensure that the effort and resources for translocations are not misplaced when populations cannot persist at selected release sites? Here we share ongoing outcomes from a climate-resilient translocation program for the Mojave desert tortoise (*Gopherus agassizii*). We are conducting a series of studies to understand mechanisms for resilience under climate change, addressing the following key questions. (1) Can thermal sensitivity in maternal nest site selection buffer incubating eggs against warming? (2) Can behavioral thermoregulation, thermal sensitivity in burrow construction and use, and physiological mechanisms buffer against thermal stress across life stages? (3) Can we develop physiologically informed Mechanistic Niche Models (MNMs) that incorporate the effects of life stage and physiology to identify site-specific habitat suitability now and into the future? These more realistic models consider how physiology, habitat and climate interact to influence constraints on activity, energetic costs, and water balance. We report results from several studies and discuss their role in MNM development. Our spatially explicit MNMs can help identify current and future changes in optimal habitat to serve as release sites (across varying life stages), develop spatially explicit maps to guide conservation decision-making including release site selection, make recommendations for habitat modifications to mitigate thermal stress, and facilitate the development of assisted migration strategies.

Emerging social structure is driven by gregariousness, experience and innate preference in reintroduced scimitar-horned oryx

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 225

***Dr. Katherine Mertes*¹, *Ms. Marron McConnell*²**

1. Smithsonian's National Zoo and Conservation Biology Institute, 2. University of Maryland

The mechanisms by which non-random social structure emerges in newly established populations remain poorly understood. We analyzed six years of social association data from a reintroduced population of scimitar-horned oryx (*Oryx dammah*) in central Chad to characterize social relationships, and investigate how they emerged and changed over time. Using a calibrated M-weight association index derived from both animal tracking and field monitoring data, we applied Multiple Regression Quadratic Assignment Procedure (MRQAP) to quantify the influence of genetic relatedness, post-release experience, reproductive homophily, and gregariousness on pairwise association strength across 18 seasonal networks. We also computed Generalized Affiliation Indices (GAI) to examine residual social preferences. Structural predictors collectively explained more than 75% of variation, but explanatory power declined over time, and was consistently highest during rainy seasons. Gregariousness was the dominant predictor of social associations in nearly every season, followed by experience homophily, genetic relatedness, and reproductive homophily. Despite the observed decrease in explanatory power by structural factors, GAI-based networks revealed increasingly pronounced non-random social modularity over the study period, with modules exhibiting minimal alignment with release cohort, sex, age class, or spatial overlap. These results indicate the development of meaningful social structure in this reintroduced population driven by factors beyond those examined here, and highlight the utility of longitudinal social network analysis for monitoring and informing the management of reintroduced gregarious species.

Evaluating the role of safe havens: Long-term evidence from Australian mammal reintroductions

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 70

Dr. Jennifer Anson¹, Dr. Amanda Bourne¹, Dr. Greg Holland¹, Dr. Danae Moore¹, Dr. Jennifer Pierson¹, Dr. John Kanowski¹

1. Australian Wildlife Conservancy

Safe havens are a key conservation tool used to mitigate or eliminate threats that prevent species persistence, enabling restoration into areas where they would otherwise be unable to survive. In Australia, safe havens typically comprise island or fenced mainland reserves where invasive predators have been removed and native species reintroduced. These systems are among the most effective approaches for conserving mammals, a group disproportionately impacted by introduced foxes and cats. However, persistent misconceptions undermine support for these critical interventions.

Here, we address three common misconceptions associated with safe havens: overpopulation, loss of predator awareness due to predator absence, and the lack of ecological processes. Using long-term datasets from the Australian Wildlife Conservancy's reintroduction program, spanning translocations of threatened small-medium mammals across ten safe havens, we demonstrate that populations exhibit natural boom-bust dynamics and the capacity to self-regulate over time.

We further examine the role and diversity of native predators within safe havens and present evidence for the restoration of key ecological processes. Collectively, our findings show that safe havens not only prevent extinction of conservation-dependent species but also contribute to rebuilding functional ecosystems. Addressing misconceptions is therefore critical to strengthening support for safe havens as a central component of conservation translocation strategies.

Evaluation of mitigation translocations of reptiles in the UK

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 122

Prof. Richard A Griffiths¹, Dr. Darryn Nash²

1. University of Kent, 2. Nash Ecology

In the UK translocations of reptiles to mitigate the impacts of development vastly outnumber translocations of reptiles for conservation purposes. Mitigation translocations tend to be ‘supply led’ rather than ‘demand led’ and are usually carried out without reference to IUCN guidelines. We explored the fate of reptiles subject to mitigation translocations through (1) follow-up surveys of individual reptiles at receptor sites; (2) a comparison of the fate of penned and unpenned viviparous lizards; and (3) radiotelemetry of translocated adders. At three out of six receptor sites where follow-up surveys were carried out no reptiles were found; at the other three receptor sites recaptures comprised 3-9% of the translocated individuals. When over 1300 viviparous lizards were divided between penned and unpenned areas of equivalent size, the recapture rate was 12% in the penned area compared to zero in the unpenned area. All radio-tracked male adders dispersed from the release site, moving longer distances than non-translocated individuals, while females stayed within the vicinity of their release point. Where individual recognition of reptiles is not possible some apparently successful translocations may be down to natural recolonization of the receptor site. Apparently low success rates of mitigation translocations may be due to mortality, dispersal from the release site or insufficient survey effort.

Expanding the social dimensions of conservation translocations: Examples from hybridisation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 61

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There is growing interest in the human or ‘social’ dimensions of conservation translocations, but how practitioners and scientists should act based on social dimensions is often less clear. Here, we use four practical concepts—identified stakeholders, processes of decision-making, visions of nature, and values in science—to make sense of the social dynamics of conservation translocations, using hybrids and hybridisation as a case study. Hybridisation (i.e. interbreeding between different species or subspecies) keeps surfacing societal debate on what matters in conservation, including in the context of translocations: should we prevent hybridisation? Ignore it? Promote as a source of evolutionary potential? Hybridisation has conventionally been considered a translocation risk but this approach is being challenged in multiple ways, including growing interest in ‘genetic rescue’ (i.e. using reinforcement translocations to reduce short-term extinction risk). While science can help to make predictions about different courses of action, science alone cannot resolve questions about how people *should* act in relation to hybridisation. Drawing from interviews and case studies in Aotearoa-New Zealand and globally, we show how engaging with multiple social dimensions can help to understand different perspectives on conservation translocations, illuminate the wider range of choices available to us, and identify ways forward that benefit people and nature.

Factors influencing species reintroduction success: A global review of case studies

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 92

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Conservation translocations are now central to species recovery worldwide, yet systematic evaluation of their outcomes—particularly failures—remains limited. This study synthesises findings from 341 reintroduction case studies to identify the factors most strongly associated with perceived success or failure and explores how practitioners define and measure success. Patterns varied considerably across regions and taxa: projects in Africa tended to score lower for success than those in Eastern Europe and North & Central Asia, while fish reintroductions were rated more successful than those involving invertebrates. Organisation type also mattered, with government and NGO-led projects assessed more favourably than those led by zoos or aquaria.

Project design elements such as goals and indicators showed little direct influence on success scores, although projects with too many goals tended to score lower, suggesting that having an overly long or unfocused set of aims may make effective delivery more difficult. Qualitative analysis highlighted Partnerships & Support—particularly community engagement and strong institutional collaboration—as the most frequently cited drivers of success. Issues relating to Habitat & Release Site, including inadequate habitat quality, poor connectivity, and lack of suitable release locations, were the most common contributors to failure.

Despite growing interest in species translocations, global efforts still focus largely on mammals and birds, leaving many taxa and developing regions under-represented. Conclusions from this review reveal recurring drivers of outcomes and highlight how openly examining “failure” can strengthen the design and effectiveness of future conservation translocations.

Friend and Foe: The ecosystem effects of predator reintroductions in Australia

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 238

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Predator reintroductions in Oceania are rare with most projects focussing on restoring threatened mammalian herbivores and insectivores. The reluctance to reintroduce predators is likely caused by both the potential impacts on threatened prey and the small size of many reintroduction sites. However, predators are an important trophic level and can regulate prey populations and cause cascading ecosystem effects. We outline the predator reintroductions that have been conducted in Oceania and the effects of these translocations on other species and the ecosystem. Predator translocations include the western, eastern and northern quoll, the Tasmanian devil and the dingo. Overall, predator translocations have shown initial signs of success but most have led to significant changes in resident and reintroduced prey. These changes include changes in abundance, and behavioural and physical traits of prey with cascading ecosystem effects on vegetation and small vertebrates. Population viability analysis suggests that some translocated predator populations may be too small to support genetically viable populations without regular supplementation. The positive and negative effects of predator translocation are outlined, and options for long term management discussed.

From defaunation to rewilding: A multiple-species reintroduction framework for an Atlantic Forest island

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 226

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Defaunation in insular systems creates persistent ecological imbalances while limiting natural recolonisation, with few documented cases of sequential multiple species reintroductions. Santa Catarina Island, southern Brazil, within the Atlantic Forest biodiversity hotspot, has undergone extensive deforestation and species loss. However, the establishment of protected areas has created opportunities to restore locally extinct fauna. Led by Instituto Fauna Brasil and aligned with IUCN guidelines and a One Conservation approach, two protected areas (42.74 km² and 61.27 km²) were selected for a stepwise rewilding process. In 2024, 16 brown howler monkeys (*Alouatta guariba*), key seed dispersers, were translocated. Monitoring in 2025 indicates survival rates of 83% in one site (1 individual unknown) and 67% in the other (6 individuals unknown), highlighting detection challenges for this cryptic species. Building on this process, feasibility studies are underway for the reintroduction of small felids. Zooarchaeological analysis confirmed the historical presence of the southern tiger cat (*Leopardus guttulus*) on the island, providing robust validation for species selection. Ecological assessments, expert consultation with 11 specialists, and habitat and prey analyses supported site prioritisation and planning. Social assessments further indicated high acceptance (66% fully supportive; 30% conditionally supportive), while identifying concerns and knowledge gaps relevant to implementation. Together, these actions represent a sequential, evidence-generating translocation process, where each stage informs the next. This case demonstrates how reintroductions can advance under uncertainty through integrated ecological, historical, and social approaches, offering a transferable model for governance and decision-making in multiple species translocations.

From experimental release to recovery strategy: ‘Alalā (Corvus hawaiiensis) reintroductions on Maui

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 94

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1. Maui Forest Bird Recovery Project - University of Hawai‘i, **2.** United States Fish and Wildlife Service, **3.** Hawai‘i Division of Forestry and Wildlife, **4.** San Diego Zoo Wildlife Alliance, **5.** Haleakala National Park, **6.** Pacific Cooperative Studies Unit, **7.** State of Hawai‘i Department of Land and Natural Resources, Division of Forestry and Wildlife

Recovering the ‘alalā (Corvus hawaiiensis), Hawai‘i’s only remaining endemic crow, faces persistent and unresolved threats. Despite decades of conservation breeding and multiple reintroduction attempts, the ‘alalā remains extinct in the wild on Hawai‘i Island, its last known place of occurrence. Mortality, attributed in part to predation by ‘io (Buteo solitarius), has limited success, and additional research on ‘io behavior and occupancy patterns was needed before further releases could be attempted.

In the interim, recovery efforts on ‘io-free Maui were initiated as an experimental platform to advance release methods, remote monitoring, and automated supplemental feeding, with the goal of expanding the feasibility of releases into remote forested areas on Hawai‘i Island.

In November 2024, five ‘alalā were released into a montane wet forest on Maui. We are quantifying movement, foraging behavior, and diet using an integrated monitoring framework that includes radio and satellite telemetry, direct observation, fecal analysis, and remote camera systems. The original cohort is thriving, providing a unique opportunity to evaluate post-release behavior while refining feeder design and monitoring systems for long-term deployment without continuous human presence.

Concurrently, ongoing research on Hawai‘i Island is working to refine a clear, scalable strategy that promotes ‘alalā/‘io coexistence and long-term population persistence. At the same time, strong site fidelity and early breeding in fragmented habitat on Maui suggest greater flexibility in recovery potential than previously assumed. As a result, recovery planning is shifting toward a multi-site framework in which Maui may play an expanded role in establishing and supporting a wild population.

From pine martens to polecats: Applying translocation lessons across Britain

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 56

Dr. Jenny Macpherson ¹

1. Vincent Wildlife Trust

The return of the pine marten (*Martes martes*) to much of Britain is a notable recent conservation success. After severe historical declines, recovering Scottish populations enabled a series of well-planned translocations beginning in 2015 to restore martens to Wales. These were underpinned by rigorous ecological assessments, disease and genetic screening, stakeholder engagement, and long-term monitoring and have resulted in population establishment and expansion. Their success provided a practical template for subsequent pine marten reintroductions to England, where populations are now recovering more of their former range.

The polecat (*Mustela putorius*) presents a contrasting narrative. Although also driven to near-extirpation, polecats persisted in mid-Wales and gradually expanded once persecution eased. Today, they occupy all of Wales and much of England. However, unlike pine martens, their recovery in Scotland remains uncertain. With a thriving Welsh population but limited prospects for natural recolonisation to northern Scotland, assisted restoration may be needed.

This presentation examines how the operational frameworks developed during the Scotland to Wales pine marten translocations are shaping current feasibility assessments for potential polecat translocations from Wales to Scotland. We compare ecological, genetic, social, and regulatory contexts for both species, identifying shared considerations such as habitat suitability and stakeholder support, as well as key differences, including natural recovery pathways, hybridisation risks, and public perception.

By applying lessons from one species to another, this case study highlights the importance of adaptive learning in conservation translocations and helps clarify when natural recolonisation is sufficient and when active intervention is justified in contemporary British landscapes.

From releases to recovery: Restoring Scandinavia's Arctic fox population

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 145

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1. NINA, 2. Norwegian Institute for Nature Research (NINA)

Norway's Arctic fox captive breeding programme was initiated 20 years ago in response to critically low population sizes, which precluded the use of wild individuals for translocation. Since the first releases in 2006, more than 500 captive-born foxes have been reintroduced into the wild. These efforts have successfully re-established several locally extinct populations and reinforced others, contributing to a regional increase across Norway, Sweden, and Finland from approximately 50 to over 500 adult individuals. With this recovery, translocations using wild-caught individuals have become a viable management tool to enhance population size and improve genetic connectivity among subpopulations; future translocation strategies will be presented. The programme's success in re-establishing populations from a limited founder base also raises important genetic considerations. In particular, the number of generations spent in captivity may influence behaviour, survival, and reproductive success following release, while strong founder effects in subpopulations established from few individuals may lead to inbreeding depression. In parallel, the large open-air enclosures—located within the species' natural habitat—have provided valuable insights into key threats. Disease and predation, particularly by golden eagles, have been identified as major factors affecting survival within the breeding station, offering important perspectives on how these pressures may also operate in re-established wild populations. The abovementioned management and conservation challenges, relevant to many translocation programmes, are discussed in light of our group's data-driven research findings. Overall, the programme demonstrates how integrated captive breeding and release efforts can drive large-scale population recovery while informing adaptive management strategies for long-term species conservation.

From rescue to release: The 40 year journey of the Guam sihek back to the wild

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 168

Mr. Jeffrey Quitugua ¹

1. Guam Department of Agriculture, Division of Aquatic & Wildlife Resources

2024 was a momentous year for the Guam sihek. After 40 years of existing only in captivity, nine sihek were released into the wild. The release location was not Guam, however, but Palmyra Atoll, located over 5,000km from the Mariana Islands.

The survival of the sihek was first rooted in over three decades of dedicated partnership formed with Guam Department of Agriculture (DOAg), US mainland zoos, and US Fish and Wildlife Service. The Sihek Recovery Project began by coordinating the emergency collection of the last 29 sihek in the wild, in which all birds were shipped off Guam to US zoos.

This presentation traces the project's growth from the initial rescue to the 2003 repatriation of sihek back to Guam to the recent conservation translocation on Palmyra. It includes the project's growth through collaboration with conservation organizations and international partners, complemented by continued local community support, with DOAg remaining the central link between the species' past in the wild and its future on Guam.

The strategic use of Palmyra Atoll as a 'learning site' to evaluate both fitness and behavior of the captive birds will be discussed as this data is crucial for DOAg's ultimate goal of full restoration in the Mariana Islands. By highlighting the contributions of all project participants in this historic release, this presentation demonstrates how a local agency like DOAg provides the important continuity, institutional memory and expertise to support this global partnership.

From space to species recovery: Applying earth observation data to support decision-making for finch reintroductions in the Galápagos Islands

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 49

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The woodpecker finch (*Camarhynchus pallidus*), an endemic Darwin's finch of the Galápagos Islands, is classified as Near Threatened by the IUCN and continues to decline due to invasive species, habitat degradation, and disease. Following the successful eradication of invasive black rats (*Rattus rattus*) from Pinzón Island in 2012, re-establishing a breeding population of woodpecker finches became a conservation priority. An initial reintroduction attempt in 2022, based primarily on historical information and logistical considerations, was unsuccessful, highlighting the need for improved, data-driven decision-making.

In 2024, project partners applied **Island Vital Signs**, a decision support tool (DST) integrating NASA Earth observation data, to inform a second reintroduction attempt. The DST used long-term Landsat-derived tree cover data, GEDI LiDAR estimates of vegetation structure, and analyses of post-eradication vegetation recovery to compare potential capture sites on Santa Cruz Island with prospective release sites on Pinzón. Capture areas were categorized by landcover and woody cover values, allowing the team to identify sites with comparable habitat characteristics and long-term stability to guide release planning, supported by expert input.

Thirteen finches were translocated, fitted with radio transmitters, and released at a DST-selected site. Initial post-release observations documented foraging behavior; however, subsequent monitoring was inconclusive, likely influenced by extreme wind conditions. Despite mixed biological outcomes, applying the DST substantially improved practitioner confidence, supported transparent and defensible planning decisions, and reduced post-release monitoring effort by approximately fifty percent by directing searches to areas of highest habitat suitability.

This case study highlights the value of Earth-observation-based decision tools for reintroductions.

Genetic outcomes of red squirrel translocations in the UK

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 134

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1. The University of Edinburgh

When designing conservation translocation projects, genetic considerations should inform the selection of founders to maximise genetic diversity and minimise the risks associated with inbreeding and outbreeding to ensure the long-term viability of the new populations. However, genetic screening of potential founders and genetic monitoring post-release are rarely carried out. Red squirrels in the UK have been through a series of drastic population declines and expansions and have been extensively managed by humans. Historic translocations have brought them back to Scotland after extirpation, while recent reintroductions have aimed to extend their range and protect them from the threats of the invasive grey squirrel.

Here, we present the results of the genetic monitoring of a reintroduced red squirrel population on Anglesey, Wales. Between 1998 and 2013, thirteen translocations have been carried out to repopulate the island, with founders from England and continental Europe. Using whole genome sequencing of 60 individuals, we evaluated the current levels of genetic diversity and inbreeding, as well as population structure. Additionally, we sequenced whole genomes from individuals at one location at different time points to investigate changes in genetic diversity during population recovery. Combined with an assessment of genetic diversity across the Eurasian range of the species, these results will be used to generate recommendations for future red squirrel restoration initiatives in the UK.

Health considerations in a multi-disciplinary approach to golden eagle translocations in Scotland

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 59

***Ms. Gidona Goodman*¹, *Dr. Neil Anderson*¹, *Prof. Anna Meredith*²**

1. The University of Edinburgh, 2. Keele University

Health considerations are a key determinant of successful outcomes in conservation translocations and are often neglected. Veterinary involvement is critical from the initial project design stages through to the delivery and post-translocation monitoring stages. Our Conservation Medicine team worked very closely with the South of Scotland Golden Eagle Project team to provide veterinary support integrating health assessment, disease risk planning, husbandry advice, Highly Pathogenic Avian Influenza Virus (HPAIV) mitigation measures and welfare oversight to the project ensuring high survival rates and a positive outcome. A veterinarian was present at all chick translocations to provide a clinical assessment and obtain blood and faecal samples for analysis. A second health assessment was conducted at the time a GPS tag was fitted shortly before fledging. Veterinary input was adapted to support the experimental translocation of sub-adult eagles. The vets chair and contribute to the scientific advisory panel for the project. The SSGEP has been highly commended for its public and stakeholder engagement. Their communications officers have engaged with our veterinary students and the veterinary staff have contributed through talks and publications to public engagement efforts of the project. The information gained from the blood and faecal samples taken for health assessment contribute to the overall understanding of the population's health and genetic diversity. Veterinary investigation followed any loss of birds and supported wildlife crime investigations. This approach ensured a higher than anticipated survival rate of released birds leading to an increase in population and the first chick from a translocated bird.

Indigenising translocation approaches: Developing an Indigenous strategy, protocols and approaches for species movement

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 186

Ms. Melanie Mark-Shadbolt¹, Mr. Rawiri Walsh¹, Mr. Marcus-Rongowhitiao Shadbolt¹, Mr. Tame Malcolm¹, Dr. Matthew Wylie², Dr. Aisling Rayne³

1. Te Tira Whakamātaki, 2. Te Rūnanga o Ngāi Tahu, 3. Cawthron Institute

Conservation translocations are increasingly central to global biodiversity strategies. Yet, these approaches are largely grounded in Western ecological frameworks, often overlooking Indigenous authority, knowledge systems, and relationships with species and place. This gap is not just cultural, it is ecological, ethical, and operational. In Aotearoa New Zealand, Māori have long practised forms of translocation grounded in whakapapa (genealogical relationships), tikanga (customary practices), and intergenerational responsibility. Species are not simply units of biodiversity to be moved, they are ancestors, kin, and knowledge holders. Moving them requires not only technical protocols, but cultural, spiritual, and relational processes that ensure balance is maintained. This presentation outlines the ongoing development of an Indigenous Translocation Strategy and associated protocols, led by Te Tira Whakamātaki and partners across Aotearoa and internationally. The approach aims to reframe translocation as a relational practice rather than a purely technical intervention. Key components include:

- Indigenous governance and decision-making authority
- Cultural risk assessment alongside ecological risk
- Protocols for engagement, consent, and ceremony
- Recognition of species as taonga with rights and relationships
- Cross-boundary collaboration between Indigenous Nations for species that traverse territories

We present emerging examples from Aotearoa, and beyond, that demonstrate how Indigenous-led or supported approaches to species movements can enhance ecological outcomes, strengthen community engagement, and address long-standing inequities in conservation practice. At a time of accelerating biodiversity loss and climate-driven species movement, the question is no longer whether Indigenous knowledge should be included, but whether translocation conservation can succeed without it.

Individual, environmental and management drivers of home range formation and translocation success

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 18

***Dr. Inès Khazar*¹, *Dr. Simon Chamaillé-Jammes*², *Dr. Nicolas Morellet*¹, *Dr. Nathan Ranc*¹**

1. CEFS, INRAE, 2. CEFE, CNRS

Most animals live, at least seasonally, within a home range, an area that fulfils their requirements for survival and reproduction. Securing a home range with adequate resources is crucial for survival and individual performance. Despite this importance, most research on home ranges has focused on their geographical properties and few studies have examined in detail the process of home range formation. In the conservation context, the formation of a home range can be a particularly important criterion for assessing translocation outcomes, as animals that have settled in a home range may be considered to have successfully established and considered the habitat suitable. Using GPS and VHF data of thousands of translocated, reintroduced, relocated and rehabilitated individuals from a large diversity of vertebrate species, we studied how individual, environmental factors and management practices influence the formation of home ranges, focusing particularly on the duration and distance of the exploration phase (i.e. before settlement). We found that the speed of home range formation was influenced by individual age and sex, as well as by landscape features, particularly the degree of anthropization, as human structures may impede movement in wild animals. Moreover, we found that individuals from a wild origin and soft released settled faster than captive, hard-released individuals. Through these analyses, we identified crucial individual, environmental and management characteristics that either promote or impede home range formation, which can ultimately influence the survival and reproduction of these individuals. The results of this study could help refine translocation operations and increase their success.

Integrating genetic information into conservation translocations: A new companion document to the IUCN SSC Guidelines

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 160

***Prof. Tammy Steeves*¹, *Prof. Peter Hollingsworth*², *Dr. Anna Brüniche-Olsen*³, *Dr. Catherine Grueber*⁴, *Dr. Isa-Rita Russo*⁵, *Dr. Gernot Segelbacher*⁶**

1. CTSG, University of Canterbury, 2. CTSG, Royal Botanic Garden Edinburgh, 3. CGSG, University of Copenhagen, 4. CGSG, University of Sydney, 5. CGSG, Cardiff University, 6. CGSG, University of Freiburg

The *IUCN SSC Guidelines for Reintroductions and Other Conservation Translocations* (herein, the *Guidelines*) recognise genetics as a key discipline underpinning the planning, implementation, and evaluation of conservation translocations. Genetic information can inform whether a translocation is likely to be an effective conservation action, guide management decisions during implementation, and help assess outcomes and long-term success. However, drawing on our collective experience as conservation geneticists who are regularly consulted by conservation translocation practitioners for genetic advice, it is clear that additional guidance is needed to support practitioners in addressing common, day-to-day challenges. While the *Guidelines* provide the framework, translating genetic principles into practical decision-making remains difficult for many projects.

On behalf of a joint initiative between the IUCN SSC Conservation Translocation Specialist Group and the IUCN SSC Conservation Genetics Specialist Group, I will soft launch *Integrating Genetic Information into Conservation Translocations*, a new Companion Document to the *Guidelines*. In doing so, I will showcase diverse case studies to explore four interconnected practitioner-driven questions that illustrate how genetics can inform conservation translocations in practice:

- How many individuals should be translocated?
- Where should individuals be sourced from?
- Should hybridisation be prevented or promoted?
- How should taxonomic uncertainty be addressed?

Together, these examples will highlight practical pathways for integrating genetic information into real-world conservation translocation decisions. To ensure the provision of clear and concise guidance for practitioners, I will also invite conference participants to offer feedback on the near-final draft.

Integrating non-invasive genetics into a multi-stakeholder framework for potential future translocations of Eurasian lynx (*Lynx lynx*) in France

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 107

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1. University of Liège, 2. Société française pour l'étude et la protection des mammifères, 3. Panthera

Following its extinction from western Europe in the early 20th century, the Eurasian lynx (*Lynx lynx*) was reintroduced to the Swiss Jura in the 1970s, and subsequently recolonised France. However, recent assessments indicate that this metapopulation faces a high risk of extinction. In response, a French collaborative scientific assessment recommends a socio-ecosystemic approach combining habitat connectivity, mortality reduction, and conservation translocations to ensure long-term viability of the French population.

We analysed 227 non-invasive lynx samples collected from 2019 to 2025 through an extensive citizen science network, providing a critical baseline to inform potential translocation strategies. Our analyses reveal significant inbreeding risk ($F_{is} = 0.19$) and low genetic diversity ($A_r = 3.18$), highlighting a high risk of genetic erosion. Without genetic reinforcement, the accumulation of deleterious mutations may compromise population persistence.

As part of a feasibility assessment for potential future translocations of Eurasian lynx in France, our study delivers actionable genetic insights to support the identification of suitable release areas. Beyond this initial diagnosis, we emphasize the importance of long-term genetic monitoring to assess post-release dynamics, pending any future translocation decisions. Such monitoring will be essential to evaluate gene flow, confirm the integration of translocated individuals and quantify the effectiveness of interventions in mitigating genetic erosion. Aligned with the IUCN Guidelines for Reintroductions and Other Conservation Translocations, this work illustrates how fine-scale genetic data can inform and strengthen adaptive conservation management.

Large-scale plant translocations in the context of grassland restoration - An example from Belgium

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 53

***Dr. Sandrine Godefroid*¹, *Mr. Aurélien Kaiser*²**

1. Meise Botanic Garden, 2. Natagora

In Belgium, at least 49 plant species have been translocated to date. While this number is relatively modest, it is offset by the high quality of the scientifically supported approaches. The majority of these translocations are not species-based but are part of large-scale restoration projects of habitats of Community importance as defined by the EU Habitats Directive.

This contribution will present one of the most recent translocation projects in Belgium, in which planting ex situ propagated plants is one of the approaches implemented to help restore plant communities to a good conservation status. In this project, 4,879 plants from four red-listed species (*Salvia pratensis*, *Gentiana cruciata*, *Pulsatilla vulgaris*, *Trifolium montanum*) were translocated in 2024–2025, using scientific procedures that had been effectively developed for previous translocations over the past 12 years.

The talk will address species profiling, seed sourcing, laboratory germination, greenhouse cultivation, transplantation of mixed populations from multiple local origins, and population monitoring. It will also discuss the challenges encountered and the main lessons learned. Finally, we will highlight some examples of publications resulting from our translocations, addressing genetic perspectives as well as practical aspects, such as a decision tree for grassland restoration and a recently released European database of plant translocations (3,211 cases across 1,166 taxa).

Lead toxicosis hampers southern ground-hornbill recovery in South Africa

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 192

Ms. Nthabiseng Monama¹, Dr. Lucy Kemp¹

1. Mabula Ground Hornbill Project

The Southern ground-hornbill (*Bucorvus leadbeateri*) is regionally Endangered in South Africa and Vulnerable globally. Over the last 20 years, conservation efforts have focused on harvesting redundant second-hatched chicks for reintroduction. These chicks are artificially reared and spend four to five years in mentored groups to learn survival skills before final placement. Modelling suggests 20 contiguous groups are required for sustainable population growth, which is a considerable but not impossible feat. While refined rearing protocols have achieved a 95% fledging success rate, the current survival rate to adulthood of reintroduced stock is 48%. Although this exceeds the 30% success rate observed in wild groups, it remains suboptimal. Analysis indicates that removing the impacts of lead toxicosis would increase the reintroduction success rate to 75%. Lead poisoning affects candidates through both acute mortality and sub-clinical effects, including accidental deaths, breeding difficulties, and the breakdown of essential social structures. To address this, a national education campaign is underway, involving hunting and fishing organisations, conservation NGOs, and government bodies. By incorporating lessons from Europe and the USA, this collaborative effort aims to eliminate lead exposure as a primary driver of reintroduction failure, ensuring the long-term viability of the species.

Lessons from an introduction success story: Ko'ko' (Guam rail) on Islan Dãno'

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 163

Ms. Lauren Thompson ¹

1. Guam Department of Agriculture, Division of Aquatic & Wildlife Resources

The Ko'ko', or Guam rail (*Hypotaenidia owstoni*), was brought into captivity in 1983 following extirpation in the wild on Guam due to introduction of the brown treesnake (BTS; *Boiga irregularis*). In 2010 and 2012, cohorts of 16 and 10 Ko'ko' were introduced to Islan Dãno', a snake-free sandbar off the southern coast of Guam. This population has been continually monitored by the Guam Department of Agriculture, Division of Aquatic & Wildlife Resources (DAWR) over the past 15 years using a variety of techniques, primarily radio telemetry, audio playbacks, and nest monitoring. From this data combined with captive Ko'ko' demographics, an integrated population model population viability analysis (IPM-PVA) has been built to evaluate the post-release population dynamics of Ko'ko' on Islan Dãno'. The model produced a population growth rate (λ) estimate of 1.05 (95% CI: 1.03–1.06), indicating the population likely experienced exponential growth following introduction and could have reached carrying capacity of within 5 years of release. This suggests that even a small release cohort may be sufficient to establish a self-sustaining population. However, the population is now threatened by a reproducing population of BTS confirmed on Dãno' in 2020. Snake suppression efforts are ongoing, and recent camera trap monitoring has revealed evidence of successful Ko'ko' reproduction. This suggests that Ko'ko' may be able to maintain a self-sustaining population even in the presence of BTS, so long as BTS are sufficiently suppressed. This insight, along with the IPM-PVA's findings, has exciting implications for future Ko'ko' conservation on mainland Guam.

Lessons from past failures: A history of the Przewalski's horse reintroduction

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 128

Dr. Monica Vasile¹

1. University of Oulu

What can past reintroduction failures teach present conservation practice? This presentation approaches that question from the perspective of an environmental historian, using archival records and over twenty interviews with scientists and practitioners involved in the recovery of the Przewalski's horse. The history of this species' return to the wind-swept Mongolian desert-steppes is often told as a resounding success. Yet a closer look at the record shows repeated setbacks: failed releases, high mortality, undetected disease, and animals that did not behave as expected once released. Rather than treating these as mistakes, I examine them as moments where knowledge was produced under pressure and uncertainty. Using archives, field reports, interviews, and fieldwork observations, I reconstruct the socio-political setting of reintroduction and trace how practitioners learned to work with horses, landscapes, and logistical constraints over several decades. Failures drove changes in transport, release strategies, social grouping, and post-release management. They also made clear that animal behaviour can redirect outcomes in ways management cannot fully control. By retracing how knowledge and practice evolved as a long-term iterative process through failure, this paper argues for treating historical cases as a resource for current conservation. It invites closer attention to time, uncertainty, and animal agency in the design and evaluation of reintroduction programmes.

Life Seedforce: A European project focused on plant translocation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 209

Mr. Costantino Bonomi¹

1. MUSE, Trento Science Museum

Life SEEDFORCE targets 29 policy species reported in bad conservation status in Europe according to the EU Habitat Directive, aiming at reversing the current unfavourable conditions. The target species were chosen as flagship species for Italy and will benefit from habitat improvement and well-targeted multiplication and translocation activities, designed to counteract both external habitat-related threats and intrinsic species-related threats. Dedicated preparatory actions assessed populations genetic diversity, analysed the climatic envelope and projected future scenarios, taking into account trophic dependencies, thus guiding the preparation of the propagation mixes best adapted to each site, to be used for plant translocation (either reintroduction or population reinforcement). The translocated individual will be capable to anticipate future climate change conditions, being selected from populations that thrive now in the habitat conditions that the target site will experience in the future. For narrow endemic species with only one of few locations, the climate modelling allowed to pinpoint suitable areas that now and in the near future show a suitable condition to extend the population range. A series of best practice activities will be illustrated ranging from the use of drones to monitor population size in difficultly accessible habitats, such as cliff faces, to plant propagation techniques and habitat improvement activities. This is a flagship project of the Italian seedbank and botanic garden networks.

Keywords: plant conservation, propagation, translocation, Habitat directive

Acknowledgements: Life Seedforce received funding from the Life Programme - The European Union funding instrument for the environment and climate action, under contract LIFE20/NAT/IT/001468

Management, outcomes and lessons from multi-site reintroductions of the critically endangered Bermuda land snail *Poecilozonites bermudensis*.

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 154

***Dr. Gerardo Garcia*¹, *Dr. Mark Outerbridge*², *Dr. Kristiina Ovaska*³**

1. Chester Zoo, 2. Department of Environment and Natural Resources, Government of Bermuda, 3. Biolinx Environmental Research Ltd.

Land snails of the genus *Poecilozonites*, endemic to Bermuda, have undergone severe declines, and both extant species are listed as Critically Endangered on the IUCN Red List. Here we report on conservation translocation efforts to reintroduce *P. bermudensis* within its indigenous range using founders from a remnant wild population and an ex situ breeding programme. The aim was to test practical approaches to reintroduction management and long-term recovery of a highly threatened island endemic. Monitoring of initial releases on Nonsuch Island over seven years showed rapid establishment of a self-sustaining population at one of three release sites. By 2023, the population released in 2016 had expanded its area of occupancy to 6,849 m², dispersed up to 92 m from the release site, and reached an estimated mean density of 44.2 adult snails/m². Between 2019 and 2022, we released 105,970 *P. bermudensis* adults and juveniles to 11 offshore islands and 16 main island sites. Using persistence, reproduction, and post-release expansion after at least one year as criteria, reintroductions were successful on six offshore islands, but failed on the main island. This contrast suggests that higher predation pressure and fewer suitable refuges may have limited establishment on the main island. Our findings show that conservation translocations can deliver rapid recovery when habitat and predator risk are favourable, but that site selection remains critical. Continued predator control, strict biosecurity, and protection of offshore islands from incursion will be essential to secure the future of this reintroduced species.

Managing ecosystem changes during rewilding

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 173

Dr. Linda Neaves¹, Prof. Iain Gordon², Prof. Adrian D. Manning²

1. Murdoch University, 2. The Australian National University

Returning lost species is a key component of rewilding and restoration of ecosystems and processes. However, even where there is some knowledge of the historical ecosystem there is considerable uncertainty around the true historical communities, the impact of irreversible environmental changes and whether species will fulfil their expected historical niches. Consequently, reintroductions can cause unanticipated ecosystems changes which require management. There are few frameworks applied in restoration and rewilding that are adaptable, transparent and can incorporate and communicate decision-making under a high degree of uncertainty. Using management scenarios encountered in the reintroduction of multiple species to a fenced sanctuary in Australia and rewilding efforts in the UK as case studies, we adapted the Resist-Accept-Direct framework, which is currently applied in resource management under large-scale ecosystem change (often climate related). This framework was design by managers to address shortcomings in the concepts of naturalness and historic range making it particularly relevant to decision-making associated with translocations. The framework presents three management pathways as possible responses to an ecological trajectory, which can be aligned with pathways to achieve the goals of rewilding. However, in this context, separate pathways were needed to account for actions that actively revert the ecosystem towards an historical baseline and those that aim to resist current and future changes. This distinction allows the Resist-Accept-Direct-Revert framework to enhance clarity and transparency in planning, communication and management during and after restoration and rewilding activities, particularly where unforeseen detrimental consequences could occur.

Managing plant health and biosecurity for translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 66

***Dr. Matt Elliot*¹, *Dr. Ruth Mitchell*², *Mr. Alistair Yeomans*³**

1. Royal Botanic Garden Edinburgh, 2. James Hutton Institute, 3. Biosecurity Consultant

Plant pests, diseases and invasive species have become one of the main drivers of global biodiversity loss. Often, the impacts of damaging species are not well understood or considered during plant conservation projects such as relocations and translocations. We present a resource, the Plant Health Biosecurity Planning (PHBP) template, as a practical tool to help users systematically assess biosecurity risks before undertaking work in natural habitats. The PHBP focuses on risk pathways rather than detailed pest lists, making it more accessible for non-specialists, and includes sections on site information, project description, risk management, monitoring, awareness, and outbreak response. The final output is designed to be adaptable across a wide range of conservation activities and can be used by statutory bodies, land managers, and conservation practitioners.

Moving species or genes where they have never been for conservation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 234

***Dr. Axel Moehrenschrager*¹, *Prof. Stefano Canessa*², *Dr. Sarah Dalrymple*³, *Prof. Resit Akcakaya*⁴,
*Dr. Rafael D'Andrea*⁴, *Prof. Jedediah Brodie*⁵, *Ms. Maude Vernet*⁶, *Prof. John Ewen*⁷**

1. Panthera, 2. Division of Conservation Biology, Institute for Ecology and Evolution, 3. Liverpool John Moores University, 4. Stonybrook University, 5. University of Montana, 6. University of Bern, 7. Zoological Society of London

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.

Moving the books while the library burns: Practical considerations for effective species translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 78

Dr. Helen Senn¹

1. Royal Zoological Society of Scotland

In 2013 Lindenmayer et al¹ argued that it was critical that species monitoring programmes had a plan for action and did not just spend time and resources “counting the books while the library burns”. However, if this action is to take place in the form of a conservation translocation, once it has been planned out according to IUCN guidelines, it must be enacted- ideally swiftly, harmoniously and in a cost-effective manner. Based on the Royal Zoological Society of Scotland’s practical experience of leading the teams which have managed mammalian and invertebrate conservation translocation programmes in Scotland² and of providing technical assistance to translocation projects internationally, I will summarise some key practical learnings from our partnership work around team management, project governance, communications and funding which can support the translation of a solid recovery plan into the reality of action on the ground. Ultimately how can we all do more to ensure that conservation translocations deliver effective action in response to the conservation crisis and how can we ensure that this action is sustained on the timescales required by ecological recovery?

1. Lindenmayer, D.B., et al (2013) *C Front Ecol. Environ* 2013; 11(10): 549–555, doi:10.1890/120220

2. Taylor, H.R., Allott, C., et al (2025); Taylor, H.R., Button, A., et al (2025); Taylor, H.R., Senn, H., et al (2025); Bacon A., Barclay, D., et al (2025) *Case studies from around the globe (8th edition)*. Gland, Switzerland: IUCN SSC Conservation Translocation Specialist Group

Multi-metric monitoring informs translocation outcomes for vulnerable macropod inside fenced safe haven

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 119

Ms. Emily Jarvis¹, Dr. Andrea Griffin¹, Dr. Darren Southwell¹, Dr. Sarah Bell², Prof. Matt Hayward¹

1. Centre for Conservation Science, University of Newcastle, 2. NSW National Parks & Wildlife Service

Fenced 'safe havens' currently protect ~40% of Australia's threatened mammal species. Understanding what determines the success or failure of fenced area translocations is critical to ensuring they continue to improve as a conservation tool. In May 2025, the vulnerable parma wallaby (*Notamacropus parma*) was reintroduced to Ngambaa Safe Haven; a 2000-hectare fenced area on Australia's mid-north coast. The aims were to reestablish the species within a section of its former range, and study factors influencing the outcome of the reintroduction over a six-month period. Wallabies ($n = 38$) were sourced from two captive populations and half the cohort fitted with GPS or VHF transmitters. Camera traps operated continuously throughout the reserve to detect uncollared individuals via colour-coded ear tags. Health checks were conducted intermittently where wallabies could be recaptured. Scats were also collected opportunistically and diet analysed via eDNA metabarcoding. The reintroduction was considered successful during the initial stages, with no confirmed mortalities during the monitoring period (estimated > 55% survivorship). By the conclusion of the study, wallabies had dispersed in suitable habitat across the reserve. Most individuals showed signs of establishing stable home ranges and had generally transitioned to a wild diet, despite provision of supplementary food. Body condition declined post-release, however on-site reproduction was confirmed with 38% of females holding pouch young at the five-month mark. Knowledge gained will improve conservation outcomes for wild and safe-haven populations of forest macropods. Importantly, our study demonstrates the value of multi-metric monitoring frameworks to evaluate the outcome of conservation translocations.

Opportunities and challenges of bryophyte and lichen translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 147

Ms. Kat O'Brien¹

1. Naturescot

Great Britain is home to over 1000 bryophyte (mosses, liverworts and hornworts) species -representing two thirds of Europe's diversity – and over 2380 lichens. However, both taxa are under pressure from habitat loss and fragmentation due to current and historical land use, as well as climate change, invasive species and pollution. Some also have poor natural dispersal capabilities restricting their ability to respond to environmental change. With 59 species of bryophyte and 45 lichens Nationally Critically Endangered in GB, some species face major population loss or increased extinction risk due to these pressures. Bryophytes and lichens are difficult taxa to translocate due to poor understanding of the micro-niche of most species, and their high selectivity to abiotic and biotic factors. Despite this, there is a great opportunity for translocations to aid the many Threatened Red List species, and translocations of these diminutive organisms are often low risk and low cost.

This talk will highlight three translocations that have occurred in Scotland. These comprise a recent project using of material cultivated at an ex-situ site, and two long-term studies, which highlight the need for good monitoring plans.

Despite the taxon being generally harder for the public to engage with, translocation stories which involve Red List species have achieved high visibility as good news stories, so boosting people's appreciation of our bryophyte and lichen hyperdiversity.

Optimising the reinforcement of Hermann's tortoise populations affected by wildfires

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 105

***Mr. Clément Guenier*¹, *Dr. Xavier Bonnet*², *Mr. Sébastien Caron*³, *Ms. Olivia Delorme*³, *Dr. Nicolas Kaldonski*⁴, *Dr. Laurence Affre*⁴, *Dr. Jean-Marie Ballouard*³**

1. IMBE - SOPTOM, 2. CEBC - CNRS, 3. SOPTOM, 4. IMBE

In increasingly warm and fragmented habitats, wildfires represent a growing threat to biodiversity, particularly for long-lived, slow-regenerating species such as Hermann's tortoise (*Testudo hermanni*). Conservation translocations offer a promising tool for reinforcing fire-affected populations, but optimal strategies, especially regarding the age class of released individuals, remain poorly defined. Indeed, juveniles remain overlooked in translocation programmes, despite exhibiting high behavioural plasticity that may facilitate habitat settlement. Here, we investigated whether juvenile-focused translocations constitute a viable reinforcement strategy for *T. hermanni*, and which factors modulate their success. Over 130 individuals were radio-tracked near-daily for two years, generating one of the most detailed post-release monitoring datasets for juvenile tortoises. We examined the effects of age and personality traits on key translocation success parameters, and tested a “resetting” protocol (returning over-ranging individuals to the release site to promote settlement). In terms of outputs, translocated juveniles generally performed well, with individuals exhibiting high survival, growth, body condition and successful site settlement. Predation was the main factor influencing success, underscoring the critical importance of release site selection. Although individuals displayed marked variation in spatial behaviour suggesting personality-related effects, resetting operations effectively curbed long-distance movements. Our findings broaden the adult-centered paradigm in translocation biology and identify juveniles as viable and relevant candidates for conservation releases.

Pigargo's project: The return of Europe's largest eagle to the Iberian Peninsula

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 22

Mr. Enrique Murciano¹, Mr. Ernesto Álvarez¹, Mr. Juan Pablo Díaz¹

1. GREFA

The GREFA Pigargo's Project was initiated with the primary objective of reestablishing the White-tailed Eagle (*Haliaeetus albicilla*) within the northern Iberian Peninsula. To evaluate the project's potential, an experimental reintroduction phase was conducted between 2021 and 2022 in the Asturian village of Pimiango, Spain. During this period, 25 individuals of Norwegian origin were translocated and released.

The release technique employed was developed by GREFA over the course of its 45-year history—a hybrid of hacking and acclimatization. This project marked the inaugural application of this technique to the White-Tailed Eagle, with empirical data indicating a highly favorable response from the species.

To facilitate rigorous scientific monitoring, all specimens were fitted with GPS/GSM tracking devices. This technology allowed to analyze: habitat selection and adaptation patterns, interspecific interactions with local endangered fauna and potential conflicts with local socioeconomic activities.

The concluding feasibility study confirms the successful integration of the species into the northern Iberian ecosystem, confirming a null impact on endangered species and local socioeconomic interests. Trophic monitoring indicates that the common carp (*Cyprinus carpio*) constitutes the main prey for the released individuals, an invasive alien species that occurs in high densities throughout their frequented habitats. While electrocution remains the primary mortality cause, the current survival rate is established at 68%. Pair formation reveals five pairs, two of them trios. In 2025 the project achieved a significant rewilding milestone: the first successful wild-reproduction of the species since its regional extinction in the late 19th century.

Pine hoverfly (*Blera fallax*) reintroduction: A small species revealing big issues

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 133

Mrs. Genevieve Tompkins¹

1. RSPB

By 2018, the critically endangered pine hoverfly (*Blera fallax*) had become restricted to a single occupied site in the UK, in the Cairngorms National Park. As part of the Rare Invertebrates in the Cairngorms partnership project, the RSPB and Royal Zoological Society of Scotland (RZSS) began working together on a conservation breeding and release programme. The highly successful breeding programme has resulted in the release of over 30,000 pine hoverflies across 5 sites in the Cairngorms National Park since 2021.

Habitat management for the pine hoverfly has traditionally focused on supplying rot holes, as larval habitat, in Scot's pine deadwood within the context of recovering Caledonian pine forest habitat. An unexpected outcome of the release programme is the increasing realisation of the fundamental lack of flowering plants available in these habitats for flower-feeding insects, including the pine hoverfly. As well as limiting available release sites for pine hoverfly, this lack of habitat diversity will also impact other woodland pollinators and insect-feeding species like capercaillie. A literature review, carried out by RSPB volunteers, is helping us to better understand the relationship between hoverflies and woodland flowers, particularly making use of research on pine hoverflies from other countries.

This information is now being used by the Rare Invertebrates in the Cairngorms to work with land managers to increase the diversity of flowering plants in these woodlands. We are working to counter the shifted baseline in land managers' understanding of what a Caledonian pinewood should look like and which species belong there.

Planning for multispecies translocations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 28

Prof. Matt Hayward¹, Dr. Lynette Plenderleith¹

1. Centre for Conservation Science, University of Newcastle

Animal reintroductions are often central to efforts to reverse species declines and restore ecological processes. Historically, reintroduction projects have mainly been focused on single species and driven by the needs of individual taxa, however, growing interest in restoring ecosystem function requires the reintroduction of multiple species. We synthesise theoretical and practical considerations for reintroductions, with an emphasis on their application to multi-species programs. We include general principles that underpin successful reintroductions, such as the need for threat abatement, preparation or management of suitable habitat, defining objectives and success criteria, and selection of appropriate founder populations and we discuss the additional complexities that arise in multi-species reintroductions. Multi-species programs must account for inter-specific interactions, including competition, predation, parasitism, mutualism, commensalism and the role of ecosystem engineers. We suggest that these interactions can be mitigated, usually by spatial or temporal spacing and release protocols such as supplementary feeding. Effective niche partitioning, resource heterogeneity and careful sequencing of reintroductions are fundamental to minimising negative interactions and supporting community stability. We present case studies from around the world and identify common themes for reintroductions - beginning with low-risk, low-conflict species; prioritising ecosystem engineers and key functional groups; ensuring that prey species are established before predators; and embedding robust monitoring and adaptive management. These insights are integrated into a conceptual framework for multi-species reintroductions which also highlights the importance of socioeconomic and cultural dimensions, including regulatory compliance, stakeholder engagement and partnerships with Indigenous custodians, as core components of program design.

Planning the conservation translocation of the buffy-tufted-ear marmoset (*Callithrix aurita*) in the Atlantic Forest of southeastern Brazil: Integrating health surveillance and hybrid management

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 90

Ms. Isabela Mascarenhas¹, Ms. Júlia Diniz¹, Ms. Larissa de Jesus¹, Mr. Gabriel Toledo¹, Ms. Larissa Ávila¹, Mr. Alex Pauvolid-Corrêa¹, Mrs. Fabiana Cristina Melo¹, Mr. Fabiano Melo¹, Mrs. Fabiana Voorwald¹

1. Universidade Federal de Viçosa

The buffy-tufted-ear marmoset (*Callithrix aurita*) is an Endangered primate, endemic to the Brazilian Atlantic Forest, threatened by habitat loss, competition, and hybridization with invasive congeners. The species is included in the National Action Plan for the Conservation of Atlantic Forest Primates, which prioritizes actions to improve population viability, manage allochthonous primates, and assess disease risks. Conservation translocation is being planned as a structured management intervention to reintroduce *C. aurita* from ex-situ to Atlantic Forest fragments in the municipality of Viçosa, southeastern Brazil. To this end, between 2021 and 2025 the fragments were evaluated according to habitat structure and resource availability. In parallel, health assessment and pathogen surveillance were conducted in the source population (*C. aurita*) and the resident population at the proposed destination area - comprising invasive hybrids (*Callithrix* sp.). Fragment assessments identified priority areas with suitable habitat structure and resource availability for translocation. Pathogen surveillance revealed relevant differences between the ex situ population and animals at the destination site. Serological analyses detected no neutralizing antibodies for yellow fever virus in the ex situ population, whereas antibodies were detected in 1.1% (1/90) of invasive hybrids at the destination site, indicating previous viral circulation in areas prioritized for *C. aurita* translocation. Parasitological examinations identified *Platynosomum* sp. exclusively in the ex situ population, highlighting the potential risk of pathogen introduction. In addition, 87 invasive hybrids at the destination site were surgically sterilized. These findings provide key evidence to support risk mitigation and decision-making for conservation translocation. The authors gratefully acknowledge the financial support from CAPES, CNPq, and FAPEMIG.

Plantlife Scotland translocation - *Linnaea*, *Moneses*, and *Nyholmiella*

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 100

Dr. Sam Jones¹

1. Plantlife

Plantlife is among the organisations pioneering translocation of plants, bryophytes, and lichens. Plantlife Scotland lead on the translocation of Twinflower (*Linnaea borealis*), One-flowered Wintergreen (*Moneses uniflora*), and are pioneering work on Aspen Bristle Moss (*Nyholmiella gymnostoma*). Learning from translocation of these 3 rare species in Scotland will be shared, with each presenting unique challenges and lessons.

Linnaea translocation has been a key conservation intervention for its restoration in Scotland for 15 years, with remaining wild sites numbering less than 600, highly fragmented and unable to reproduce, and ~725 distinct individuals remaining. Methods and resources for translocation are widespread in this instance, and Plantlife have taken a leadership approach, aiming to support and facilitate 250 translocations via numerous partners by 2040.

Moneses translocation is experimental. The species has heavily declined in Scotland (and may be rapidly declining globally), with local extinction of a quarter of Scottish sites since 2000. The first trial translocation was performed in 2023, a reinforcement to a site which almost went extinct. We have recorded ~50% survival to date and have substantial learning for future translocation efforts.

Nyholmiella translocation, and epiphytic bryophyte translocation in general, is novel and pioneering. The moss was thought to be extinct in the UK, but has since been rediscovered at 3 sites growing on ~50 trees. An experimental translocation was performed in March 2026, where 1 of these trees supporting ~5% of the Scottish populations fell and the material would otherwise be lost.

Practical lessons from wild forest reindeer reintroduction

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 255

***Dr. Sakari Mykrä-Pohja*¹, *Dr. Milla Niemi*¹**

1. Wildlife Service Finland

The seven-year European Union (EU) co-financed WildForestReindeerLIFE project (2016–2023) reintroduced wild forest reindeer into two areas of their historical range using captive breeding and soft releases. Between 2019 and 2022, 82 individuals—more than half of them born in breeding enclosures at the release sites—were released into two national parks. A new EU-funded project, LIFEline4Fennicus (2026–2032), will build on this work by supporting these populations and establishing a new reintroduction site.

The completed reintroduction was largely successful, but it also revealed a number of practical challenges likely to be shared by similar projects. One major challenge was - and is likely to remain - the availability of founders: Finnish zoos could produce only limited numbers of genetically suitable individuals for reintroduction. Another concern was the availability of skilled staff, as gaps in animal care or welfare monitoring could endanger animals and increase the workload of other team members. We also found that human habituation may become an issue, particularly among zoo-born males. In the new project, we therefore aim to develop day-to-day management practices that minimise human contact.

In addition, reintroduction work involves a constant stream of small but important practical challenges, ranging from finding suitable ear tags to selecting appropriate materials for fixing fence nets and optimising game camera settings. As many of these issues are likely common across reintroduction projects, we encourage open discussion and knowledge exchange—not only about successes, but also about difficulties and the on-the-ground realities of reintroduction work.

Pre-release experience with competitors influences niche partitioning following conservation translocation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 215

***Dr. Debra Shier*¹, *Ms. Sadie Trombley*², *Dr. Amber Thatcher*², *Dr. James Sheppard*², *Ms. Alison Gregg*¹**

1. San Diego Zoo Wildlife Alliance, 2. SDZWA

Interspecific interactions, particularly competition, are a major but under-addressed driver of failure in conservation translocations. Pre-release conditioning has proven to be important for captive-bred individuals lacking prior exposure to predator communities, but similar mechanisms may apply when translocations involve novel or altered competitive environments. While conditioning is increasingly used to improve post-release performance, its role in mediating competitive interactions and facilitating coexistence remains poorly understood. We tested whether pre-release experience with heterospecific competitors influences post-release space use, habitat selection, and temporal activity in the endangered Pacific pocket mouse (*Perognathus longimembris pacificus*). Prior to release, a subset of individuals was exposed to a dominant heterospecific competitor (*Chaetodipus spp.*) present at the recipient site. Following release, we combined individual-based monitoring and community-level observations to evaluate behavioral responses. Settlement locations were mapped and habitat characteristics quantified at burrow sites and random points to assess habitat selection. Live-trapping and spatial data were used to compare space use of pocket mice and competitors, while passive integrated transponder systems and camera-monitored feeding stations quantified competitor activity and temporal resource use. Preliminary analyses indicate that variation in the extent of pre-release interactions, rather than treatment assignment alone, may better predict post-release outcomes. We evaluate three mechanisms by which experience may reduce competitive exclusion: spatial segregation, selective use of less contested habitat, and temporal partitioning of activity. These findings suggest that incorporating variation in pre-release experience into translocation design may improve establishment success.

Promoting rhinoceros welfare during transit: Veterinarians' perspectives on transportation practices

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 24

Dr. Emmanuel Macha¹, Prof. Leith Meyer², Dr. Marion Leiberich³, Prof. Emma Hooijberg³, Dr. Markus Hofmeyr⁴

1. Tanzania National Parks, 2. Massey University, 3. Centre for Veterinary Wildlife Research, Faculty of Veterinary Science, University of Pretoria, South Africa, 4. Wildlife Conservation Network, California, USA

Despite translocation being a useful conservation strategy in rhinoceros management, morbidities and mortalities occurring during transportation pose a significant concern to rhinoceros managers, veterinarians, and scientists.

The objectives of this study were to better understand the effects of transport on rhinoceros and to gain insights from veterinarians involved in rhinoceros translocations about current practices and potential interventions that could improve welfare.

A weblink and QR code to an online questionnaire with a total of 46 questions in Google Forms was sent to veterinarians who had experience in African rhinoceros transportation, through personal emails and social network forums.

Results demonstrated that despite dehydration and negative energy balance being reported as the major causes of morbidities and mortalities during transport and post-release, most veterinarians (30/35; 86%) involved in rhinoceros translocation did not offer water, parenteral fluids, or feed to transported animals, for logistical reasons and the knowledge or perception of rhinoceros resistance to taking *ad lib* food and water during transport. However, 52% (15/29) and 41% (15/34) of participants suggested that parenteral fluids could be used as an intervention to mitigate dehydration and negative energy balance respectively. To reduce stress, 94% (33/35) of respondents suggested the use of tranquilisers and sedatives.

This study is the first to systematically investigate and report on practices by veterinarians involved in rhinoceros translocations globally. The study highlights that further research is required to explore optimal and pragmatic techniques in the field to mitigate reported welfare challenges in rhinoceroses during transport.

Quollified for release? Age and pre-release experience predict success for translocated eastern quolls (*Dasyurus viverrinus*)

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 34

Ms. Erin Thomas¹, Dr. Rowena Hamer¹, Dr. David Hamilton², Ms. Morrigan Guinane², Dr. Menna Jones¹

1. University of Tasmania, 2. Tasmanian Land Conservancy

Eastern quolls (*Dasyurus viverrinus*) are a small marsupial carnivore (700 – 1,900g) once abundant across much of Australia, however wild populations are now restricted to the island state of Tasmania. Within Tasmania, populations have reduced significantly within the past 20 years, subject to predation, disease, habitat loss and changing climatic conditions. This work is part of a large early intervention project for eastern quolls, using replicated translocations to quantifiably identify optimal translocation methods. Using survival, dispersal and genetic data from four translocations we have determined that sex, age-at-release and pre-release conditions are critical factors for short-term post-release success.

Limiting dispersal is key for translocation success, as hyper-dispersal exposes individuals to greater risk, energy expenditure, and isolates them from breeding opportunities. Additionally, individuals cannot be monitored or benefit from management actions such as supplementary feeding and/or predator control. Juvenile animals exhibit natal dispersal, which is often more apparent in males, reflected in our results of high juvenile male dispersal. While juvenile females did not disperse as far, there were more susceptible to predation, likely due to their size.

Adult animals displayed high survival and low dispersal, however adults that were not exposed to breeding in their first reproductively active year in captivity did not successfully produce offspring. No difference in offspring production was detected between adult females that had previously reproduced and juvenile females. Through this work we have identified that not only age-at-release, but pre-release experiences in captivity are pivotal to the ongoing success of translocations of these marsupials.

Racing against extinction: Pioneering translocation of Europe's rarest songbird

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 141

Mr. Zymantas Morkvenas¹

1. Baltic Environmental Forum

The Aquatic Warbler (*Acrocephalus paludicola*) — Europe's rarest and globally threatened passerine — has experienced a dramatic 95% decline since the 1950s, with fewer than 50 breeding sites remaining across Central and Eastern Europe. To counteract local extinctions and reinforce remnant populations, the LIFE MagniDucatusAcrola project (2015–2025) pioneered the world's first translocation of a long-distance migratory passerine. Between 2018 and 2019, 100 nestlings were translocated from the Belarusian source population at Zvanets fen mire to Lithuania's Žuvintas Biosphere Reserve. The five-phase protocol — nest search and selection, chick transport, indoor rearing, outdoor acclimatisation, and soft release with post-release monitoring — achieved a 99% survival rate to release and first-year return rates of 22% and 14%, respectively. These results confirmed that long-distance migratory passerines can be successfully translocated and adapt to new breeding environments.

Subsequent scaling-up included translocations to Poland's Roswarowo wetlands in 2023 and 2024, reinforcing a nearly extinct Pomeranian population. The programme continues under LIFE4AquaticWarbler (2024–2033), targeting recovery in Poland and Germany, reinforcement of the Žuvintas population in Lithuania, and a pilot translocation in Hungary. This presentation will include updated results from the 2025 and 2026 translocation seasons in Lithuania and Poland.

Remaining challenges include training and establishing dedicated translocation teams capable of mainstreaming conservation translocation as an essential tool for species survival, refining chick nutrition and welfare protocols, assessing donor population impacts, and determining sustainable harvesting thresholds. Planned research on genetic diversity, juvenile migration tracking, and demographic adaptation will further strengthen this long-term conservation strategy.

Rebuilding migration: The return of the northern bald ibis to central Europe

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 20

Mr. Bernhard Gönner¹, Dr. Johannes Fritz²

1. Tiergarten Schönbrunn, 2. Waldrappteam Conservation & Research

In 2014, after years of feasibility studies, the reintroduction of a migratory Northern Bald Ibis (*Geronticus eremita*) population in Central Europe began within an EU-funded LIFE project. By the end of 2025, the population had grown to 323 individuals, exceeding the minimum viable population size defined in the second LIFE project (LIFE20 NAT/AT/000049 – LIFE NBI).

The reintroduced population now spans six European countries, with breeding colonies in Germany, Austria, and Italy, and a single pair in Switzerland. Birds winter in Italy and Spain. Since 2011, individuals have migrated regularly between Italy and the breeding sites; in 2025, the first two birds returned from Spain via a newly established second migratory corridor.

In Austria and Italy, migratory birds intermingled with three sedentary colonies, and juveniles from these colonies joined the southward migration. Increasing numbers also breed outside established colonies in Italy, nesting on buildings and trees. This behaviour, not previously documented for the species, demonstrates high flexibility in site selection.

This has created a growing network of breeding sites within the original project area. Along the new migration route to Andalusia via France and Spain, additional colonies are planned as stepping stones. In 2025, the first colony was established in Catalonia (Spain), with further colonies planned in Spain, France, and Germany.

Human-induced mortality—primarily electrocution and poaching—together with climate change, remains a challenge. Expanding and connecting colonies aims to establish a stable, self-sustaining metapopulation resilient to these threats, providing a replicable model for restoring long-distance migratory species.

Reinforcement programme for Egyptian vultures leads to successful supplementation of the breeding population in the Balkans

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 190

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The Balkan population of the Egyptian Vulture (*Neophron percnopterus*) suffered a sharp decline over the past four decades, with approximately 50 breeding pairs remaining across Bulgaria, North Macedonia, Albania and Greece. Population modelling indicates that reinforcement with captive-bred individuals can significantly reduce extinction risk. Since 2016, a reinforcement programme in Bulgaria has tested three release methods: delayed release, hacking and fostering, with the aim of identifying the most effective approach for long-term population recovery. Between 2016 and 2025, 46 Egyptian Vultures (34 captive-bred and 12 wild-sourced juveniles) were released. Survival to the end of the first autumn migration differed significantly among methods, with the highest survival observed in delayed release (69%; n = 19), followed by fostering (50%; n = 4), and the lowest in hacking (22%; n = 9). Wild juveniles showed intermediate survival (59%; n = 17). Based on these results, delayed release has been exclusively applied since 2021. The survival of released individuals to adulthood was 46%, substantially higher than that of wild-fledged juveniles (14%). Since 2022, released individuals have successfully recruited into the breeding population. By 2025, seven released birds had occupied breeding territories, and three pairs have successfully produced a total of seven fledglings. Currently, 21% of breeding pairs in the Eastern Rhodopes include a released individual which demonstrates that the reinforcement programme successfully supplements the breeding population. As a result of large-scale conservation efforts along the species flyway and the reinforcement programme the Balkan population shows stabilization and slight increase in recent years

Reinforcing and re-establishing populations of Dupont's lark: Early outcomes of a pilot translocation programme of an endangered passerine in continental Europe

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 43

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The Dupont's lark (*Chersophilus duponti*), listed as Vulnerable (VU) on the IUCN Red List, has experienced severe population declines driven by habitat loss and fragmentation. To counter this trend, we are implementing a pilot conservation programme in Spain that combines habitat management with translocations to reinforce small populations and re-establish extinct ones.

From 2023 to 2025, translocations were carried out to three recipient populations located 50–197 km from three source areas, with two translocation pulses per site. Population monitoring was based on spring singing-male censuses following a BACI design. All translocated birds (n = 52) and control birds (n = 39) were fitted with 1 g VHF coded tags integrated into the MOTUS automated tracking system to assess survival, post-release movements, and settlement. Genetic analyses complemented demographic and tracking data by enabling parentage analysis and the identification of descendants of translocated individuals within recipient populations.

Results show that reinforced population increased from 4 to 34 territories in three years. In the two formerly extinct populations, 3 and 6 individuals established successfully in three years in each site. Reproduction had been confirmed at both sites. Tracking data indicate a homing rate of 30% among translocated birds. Of the remaining birds, 17% settled in the release area for at least two months during the breeding period. In contrast, 64% of control birds remained within their original, non-translocated territories over the same period. Genetic analyses have already identified offspring of translocated individuals within recipient populations, providing direct evidence of successful reproduction following translocations.

Renewed coexistence as a conceptual reframing of animal reintroductions to foster sustainable human–wildlife coexistence

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 25

Dr. Roger Auster¹, Dr. Alan Puttock¹, Prof. Stewart Barr¹, Prof. Richard Brazier¹

1. University of Exeter

Reintroductions occur within socio-ecological systems, yet whilst attention on the human dimensions has grown, we argue there is a need for a conceptual reframing of animal reintroductions that firmly anchors the social with the ecological from the outset, through implementation, and into the long-term future.

‘Coexistence’ as used here refers to the dynamic yet sustainable state of humans and wildlife living together - inclusive of both benefits and actions to address conflicts (Carter & Linnell, 2016; Frank & Glikman, 2019).

Our futures-oriented reframing, ‘Renewed Coexistence’, builds on this understanding and refers to coexistence with the reintroduced species as it transitions from being absent, through to a wild animal. Through this reframing we propose that future coexistence with the species, considered part of the local fauna, is the goal that enables sustainability of desired outcomes beyond return of the animal to the landscape.

By explicitly recognising this branch of Coexistence, we:

- Bridge reintroduction and human-wildlife interaction literatures;
- Acknowledge historical contexts whilst looking forward to new shared landscapes;
- Emphasise inclusion of the human dimensions from the outset, throughout the process, and into the future;
- Provide practical notes for application across reintroduction project phases;
- Draw attention to ‘Transition’, as the post-project phase when governance is weaned off project infrastructure, and the species transitions from one which is “reintroduced” to part of the local fauna.

This presentation is accompanied by a recent publication in Conservation Biology:
<https://doi.org/10.1111/cobi.70195>

Restoring (Siamese?) crocodiles in Cambodia; evaluating hybridisation in a breeding and reintroduction programme

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 178

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The Siamese crocodile is critically endangered, having been lost from most of its former range in Southeast Asia, largely due to poaching for the leather trade. Widely thought to be extinct, a remnant population was discovered in the year 2000, in the Cardamom mountains of Cambodia. To restore this species from the brink, Fauna and Flora set-up a breeding and release programme in 2012 when only ~200 crocodiles were estimated to remain in the wild in Cambodia. Crocodiles for the breeding program have been sourced from leather farms, and it is known that some farms purposely hybridise them with other species. It is difficult to identify hybrid crocodiles based on morphology so we have developed a genetic test to screen for hybrid status on any crocodiles being considered for the conservation breeding and release. Since 2017 we have tested 401 crocodiles and 206 have been released back into the wild in Cambodia. We will discuss the genetic aspects of the project and highlight how it has been used in capacity building and restoration of a critically endangered species in Cambodia.

Rewilding “Las Estacas” spring, and the reintroduction of the Balsas catfish (*Ictalurus balsanus*)

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 214

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“Las Estacas” spring is one of the most emblematic natural spaces of the State of Morelos, Mexico, and is also one of the most outstanding Water Parks in the country. The spring maintains excellent water quality, which allows the existence of 14 fish species, of which only four are native (*Astyanax mexicanus*, *Poecilia sphenops*, *Ictalurus balsanus* and *Amphilophos istlanus*). This intervention seeks to reduce the diversity and abundance of exotic fish species and in turn increase the richness of native species, by reintroductions and translocations. After conducting a feasibility analysis for the reintroduction of native species, it was found that *Ictalurus balsanus* is the species with the greatest potential, based on the environmental conditions of the spring, the recipient fish community and the donor population. From this, in 2024 a collaboration was established with catfish fishermen from the community of Xicatlacotla in the south of Morelos, who aided in the capture and transfer of the 121 specimens that have been reintroduced to date. A Park task force was also trained to follow up on the specimens and according to information for the first six months, only 11 deaths had been identified, which means that by that date there had been a 90% survival rate in the specimens introduced. The population has been monitored in recent months, and nocturnal dives have been able to count on average 14 specimens per night, but no reproduction has yet been seen. This is the first phase of a long-term project.

Risk of conservation introductions: Quantitative predictions of impacts through resident ecosystem abundance trajectories simulations

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 198

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Conservation introductions are increasingly being considered as a strategy to prevent species extinctions in the face of global change. However, such methods can create unintended consequences in recipient ecosystems that are already undergoing changes due to natural processes and ongoing management. Risk assessments are needed to quantify and manage the magnitude and likelihood of impacts across interacting taxa to increase effectiveness and responsible implementation of conservation introductions. Here, we show how ensemble ecosystem models can assist pre-introduction risk screening in real-world systems, where management is ongoing and information about pre-introduction states is uncertain. We expanded the ensemble modelling framework to address its current limitations for application to conservation introductions and applied our approach to the conservation introduction of the extinct-in-the-wild Sihek (*Todiramphus cinnamominus*) to Palmyra Atoll, an island system undergoing active restoration through intensive control of invasive coconut palms (*Cocos nucifera*). Model projections showed the changes induced by Sihek introduction to the resident community could be negative, reflecting direct predation, or positive, likely from trophic cascade and release of native species from other pressures. Regardless of direction, projected Sihek impacts were two to three orders of magnitude smaller than those driven by ongoing management (at most $\pm 0.5\%$ compared to the reference system). Our results highlight how the risks of conservation management should not be judged against preservation of an ideal status quo, but to balance benefits for focal species against the backdrop of ongoing changes in the recipient ecosystem.

Scaling conservation translocations in Canada: The Wilder Canada Action Plan in practice

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 201

Ms. Millie Coleing¹, Ms. Jessica Steiner¹

1. Wilder Institute

Canada is experiencing an accelerating biodiversity crisis, with 662 plant and animal species at risk and a widening gap between recommended recovery actions and implementation. The Wilder Canada Action Plan (WCAP) is a national initiative designed to halt and reverse species declines by scaling up conservation translocations and strengthening capacity across diverse sectors, taking a whole-of-society, inclusive conservation approach. A case study is presented to illustrate WCAP's guiding principles in practice. The meadow thistle, Rocky Mountain population (*Cirsium scariosum*), found within Blackfoot territory in and around Waterton Lakes National Park, is threatened primarily by the introduced thistle head weevil (*Rhinocyllus conicus*). A community and school-based conservation translocation program is being codesigned with Blackfoot Nations, government agencies and the Wilder Institute, to meaningfully involve students and community members in seed collection, germination, propagation, translocation and monitoring.

This program will additionally support the restoration of culturally significant plant species and Blackfoot language and cultural programming. A locally developed course led by participating Blackfoot Nations fosters hands-on, land-based learning and introduces students to conservation-related career pathways, while expanding participation across communities.

Through this collaborative model, WCAP illustrates how inclusive, capacity-strengthening conservation translocations can not only restore ecosystems but also deepen cultural connections, enhance local stewardship, and create long-term social foundations for species recovery.

Keywords: conservation translocation, inclusive conservation, community-led conservation, Indigenous partnership, species recovery

Science-based reintroduction: Addressing farmers' fears of yield loss from endangered arable weeds

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 68

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The intensification of European agriculture has led to dramatic declines in arable plants, many of which are now threatened. Farmers often resist reintroduction programs because of concerns that rare arable weeds may reduce crop yields. However, experimental evidence to substantiate these concerns remains limited.

We tested whether two emblematic and threatened arable species, *Bromus interruptus* and *B. grossus*, affect crop productivity when reintroduced at low densities. In separate experiments, wheat and spelt were grown either alone or in combination with *B. interruptus* and *B. grossus*, respectively. We measured crop yield and species functional traits to assess the magnitude of interspecific competition.

Neither *B. interruptus* nor *B. grossus* reduced wheat or spelt productivity, indicating negligible competition of these species with the crop. Both arable species showed plastic adjustments in functional traits when co-occurring with crops, with the latter able to almost overwhelm the first, especially at low density. Crop functional traits and yield remained stable across treatments, demonstrating its resilience.

Our results suggest that threatened arable species can be reintroduced into crop fields at controlled densities without compromising yields, at least under the conditions tested in our experiment. This approach can be used to scientifically address farmers' concerns when threatened species reintroduction involve agro-ecosystems. Our findings provide evidence that land-sharing is possible and may offer opportunities for ecological intensification, where food production and biodiversity conservation reinforce each other.

Scottish Plant Recovery: Scaling up conservation translocations for threatened Species

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 221

Dr. Aline Finger¹, Ms. Becca Drew¹

1. Royal Botanic Garden Edinburgh

Scotland's native flora faces accelerating pressures from habitat loss, changing land management, climate change, intensive grazing and invasive species, with many taxa now reduced to small, fragmented populations. In response, we have developed Scottish Plant Recovery, a coordinated programme of plant conservation translocations that integrates landowner partnerships, conservation science, conservation horticulture and community engagement to enable species recovery at landscape scale.

This presentation synthesises outcomes from over a decade work across Scotland, focusing on threatened priority species and, the over 70 plant conservation translocations undertaken in recent years. These are underpinned by strong partnerships and active support from landowners engaged in nature restoration. While landowners restore and manage habitats, the programme complements their efforts by translocating threatened, often rare species unlikely to colonise these areas unaided.

Using case studies, we outline our approaches to genetic sourcing, propagation, biosecurity, site selection and post-release monitoring. Emerging results indicate that well-designed translocations, and particularly genetic mixing, can increase the success of conservation translocations. However, challenges remain, including limited suitable habitat, land-use change, climate uncertainty and embedding rigorous, long-term monitoring at scale. We highlight the importance of working with a wide range of stakeholders, a transparent and collaborative strategic approach to translocations. We conclude by identifying priorities for the next decade, including mainstreaming threatened plant translocations within wider landscape restoration, strengthening genetic and climate resilience considerations, and developing shared standards and data systems to improve effectiveness and reproducibility.

Shifting baseline syndrome and the Shark Bay mouse: How historical continental-scale declines can affect translocation planning and outcomes

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 97

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Anthropogenic drivers of biodiversity loss have reduced many species' distributions to a fraction of their former size. In Australia, a large proportion of mammal fauna have experienced catastrophic declines, with many reduced to tiny natural populations. Often declines occurred so rapidly that the breadth of the species' realised niche is now uncertain, potentially leading to misconceptions about its habitat requirements. This represents an example of shifting baseline syndrome.

Conservation translocations play a pivotal role in the recovery of threatened species but rely on a sound knowledge of their ecology. We reviewed the translocation outcomes for an Australian rodent, the Shark Bay mouse (SBM) (*Pseudomys gouldii*), which contracted from its formerly wide distribution to one 4150ha island. Two of seven translocations (to sites where identified threats were absent) were considered successful with another too early to tell. Success was apparently linked to the presence of extensive areas of a coastal vegetation community, similar to areas where SBM is most abundant in the remnant population, despite this community being absent from most of its former range. However, a recent study on Faure Island found that SBM were no more likely to occur in this community than any other, indicating that other factors are more important.

The plight of the SBM has not only left the species on the verge of extinction but has also made it vulnerable to misconceptions about its habitat requirements. For translocations to continue to support SBM recovery efforts, more research is needed to address this uncertainty.

Successful reinforcement of wild Grauer's gorilla population with rescued female gorillas.

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 193

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The Grauer's gorilla (*Gorilla beringei graueri*) is a critically endangered great ape endemic to the eastern Democratic Republic of Congo. Its northernmost population, located on the slopes of Mt. Tshiaberimu in Virunga National Park, has declined to only eight individuals over the past decades. A population viability analysis indicated that, in the absence of intervention, this population faces a short-term extinction risk of up to 46% due to demographic stochasticity alone. In October 2024, four adult female gorillas rescued as infants from wildlife traffickers and subsequently raised in semi-free conditions at the GRACE sanctuary, were translocated to Mt. Tshiaberimu. Following a soft-release process adjusted in real time based on the females' behavior and their vocal and visual interactions with a wild adult male, the females were fully released and rapidly integrated with the male. A team of Congolese scientists and park rangers conducted daily health and behavioral monitoring of the group's movements and diet. Sixteen months post-release, all four females are in good health. The females' diet adjusted rapidly after the release, quickly converging with that of the male, suggesting efficient social learning, likely through imitation. In contrast, the group's home range remained significantly smaller than that of the male prior to the translocation, potentially reflecting constraints on a single individual's ability to lead a larger group. Beyond representing a critical step toward the recovery of this isolated population, this intervention provides a rare opportunity to investigate the mechanisms underlying dietary acquisition and group movement dynamics in wild gorillas.

The influence of seed age and climate change on plant translocation success: An investigation in the arctic-alpine specialist *Viscaria alpina*

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 51

***Dr. Fiona White*¹, *Mr. Marco Asnaghi*², *Ms. Micol Orengo*², *Prof. Thomas Abeli*², *Prof. Graziano Rossi*², *Prof. Andrea Mondoni*²**

1. Free University of Bozen-Bolzano, 2. University of Pavia

Billions of seeds of wild plant species are stored in ex situ seed banks globally, but there is little information regarding their suitability for conservation translocation. Plants grown from stored seeds may no longer be adapted to the current climate, especially in alpine areas which are warming faster than the global average.

We used three old (2000 – 2005; ‘ancestor’) and three recent (2018 – 2020; ‘descendant’) seed accessions of an arctic-alpine specialist, *Viscaria alpina*, to grow plants which were translocated back to the seed collection site. Since 2000 the climate at the site has been hotter and drier than the long-term mean. We monitored plant survival over three years and recorded vegetative, flowering, and seed traits.

Plant survival was high the third year after translocation (96%), but flower production declined. Descendants were shorter than ancestors, suggesting plants have become smaller over 20 years. The number of flowers, and the seed mass, number and germination did not differ between ancestors and descendants, indicating these are more conservative traits.

Plant translocation of an alpine species from ex situ seeds was successful in the short term, demonstrating that seeds at least 20 years old can be used for plant conservation. Descendant plants were smaller than ancestors so may have improved drought tolerance by reducing evapotranspiration, likely in response to the hotter and drier conditions at the study site. Therefore, we recommend ex situ seed banks increase the frequency of seed collection and use more recently collected seed accessions for plant translocation.

The law and ethics of translocations: Lessons from the terrestrial to marine

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 115

Prof. Alejandro Camacho¹

1. University of California Los Angeles

To varying degrees, scientists, scholars, practitioners and increasingly policymakers have been exploring a paradigm shift in ecosystem management, in light of climate change and other stressors, to consider translocation strategies. Only recently has this begun to occur for coral reefs in Florida and the greater Caribbean. In general, the full range of translocation interventions—including assisted migration, ecological replacement and biotechnological strategies—has been given scant attention by policymakers and the scientific community.

While resistance to such approaches most commonly manifests as scientific, key resistance comes in the form of legal and ethical critiques. This is in significant part because laws in most jurisdictions largely focus on historical preservation (i.e., to maintain or restore species and ecosystems to their preexisting historical baseline), natural preservation (i.e., human nonintervention in ecological phenomena), and sustained yield (i.e., maximizing yield of particular desired species). Yet concerns about and resistance to these interventions are as ethical as they are scientific or legal.

This project explores the range of translocation strategies, including the ecological tradeoffs and uncertainties as well as the relevant ethical and legal issues. Crucially, policymakers likely should begin to explore how to best coordinate to establish a multi-stage process for ex situ and in situ research, testing, and potential deployment of a range of potential translocation management strategies. Following best practices informed by the best available social science, this process must ensure that management goals and strategies are identified using the best available science and robust involvement of affected interests.

The reintroduction of the white-tailed sea eagle to England via translocation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 136

***Mrs. Zoe Smith*¹, *Dr. Tim Mackrill*¹, *Mr. Roy Dennis*¹, *Mr. Stephen Egerton-Read*²**

1. Roy Dennis Wildlife Foundation, 2. Forestry England

Prior to being reintroduced the White-tailed Eagle (*Haliaeetus albicilla*) had been absent as a resident breeding bird in England for over 240 years. Like many birds of prey, the White-tailed Eagle suffered relentless persecution from the Middle Ages onwards. The last known pair in southern England bred on Culver Cliff in 1780 on the Isle of Wight.

A five-year reintroduction project began in 2019 to translocate and release White-tailed Eagles on the Isle of Wight, a small island off the South Coast of England. The donor population was sourced from Scotland in which there are now around 180 breeding pairs which itself originated from a translocation project involving Norwegian eagles. In 2023 a pair of three-year-old (4CY) translocated birds set up territory and began breeding for the first time, rearing a single chick. A further four chicks fledged successfully in 2024 and 2025.

All translocated birds have been fitted with Ornitela satellite tags to monitor their post-release movements. The young eagles have dispersed widely in their early years, with some individuals travelling to northern Scotland, and two others crossing the English Channel to continental Europe. All have later returned to the English South Coast as they approach breeding age and the satellite tags have provided a valuable insight into habitat use and settlement patterns with all early pairs within the expected natal dispersal range of the released birds.

They are bigger than themselves: A decade of Partula snail reintroductions – lessons learned and implications for wider species conservation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 104

***Dr. Fiona Sach*¹, *Ms. Jo Elliott*², *Mr. Paul Pearce-Kelly*¹, *Dr. Justin Gerlach*³, *Mr. Christophe Brocherieux*⁴, *Ms. Helene Duran*⁵**

1. Zoological Society of London, 2. Royal Zoological Society of Scotland, 3. Peterhouse, University of Cambridge, 4. Direction de l'environnement, 5. Écomusée Te Fare Natura

Over the past decade, an intensive reintroduction program for 15 species and sub-species of Partula snails in French Polynesia has provided critical insights into the practice of conservation translocation. Once driven to extinction in the wild by introduced predatory snails in the 1980s, Partula snails have survived through meticulous *ex situ* breeding programs, preserving genetic diversity across generations. Coordinated partnerships between zoos, local conservation agencies, and community stakeholders have facilitated habitat restoration and carefully staged reintroductions, demonstrating the importance of long-term, collaborative approaches. This presentation synthesizes key outcomes from these efforts, highlighting both notable conservation successes such as the recent IUCN downlisting of *Partula toheviana* from Extinct in the Wild to Critically Endangered, and ongoing challenges in predator management and habitat restoration. We examine how lessons learned from Partula reintroductions, including iterative monitoring, adaptive management, and community engagement, may be applied to a broader suite of conservation translocations. The program's systematic approach provides a practical model for scaling interventions to other species facing similar threats, including more than 6,000 oceanic snail species currently at risk.

By combining scientific innovation with on-the-ground management, the Partula initiative demonstrates how small, precise, and persistent actions can cumulatively achieve transformative conservation outcomes. The Partula story illustrates that, in conservation translocation, species can indeed become “bigger than themselves,” serving as catalysts for innovation, collaboration, and hope across global biodiversity recovery efforts. The program provides a replicable model for scaling conservation efforts, emphasizing that species recovery extends beyond individual survival to inspire global conservation strategies.

Translocation as connectivity: Population viability and sustainable harvest in a managed cheetah metapopulation

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 47

***Dr. Kelsey Smit*¹, *Ms. Olivia Sievert*¹, *Ms. Marna Smit*²**

1. Endangered Wildlife Trust, 2. Ashia Cheetah Conservation

South Africa's managed cheetah (*Acinonyx jubatus*) metapopulation represents one of the few large-carnivore conservation programmes in which translocation is used as a routine management tool to maintain connectivity in a fragmented, fenced landscape. Established in 2012 in response to habitat fragmentation across small, isolated reserves, it is managed as a coordinated metapopulation in which human-facilitated movements simulate natural dispersal among subpopulations. This programme has enabled sustained population growth, restoration of cheetahs to parts of their historical range, and the maintenance of genetic and demographic stability across a network of more than 70 reserves (15,000 km²).

We evaluated the long-term viability and sustainable management of this system using a Population Viability Analysis and a stochastic, density-regulated Annual Harvest Model parameterised with longitudinal life-history and translocation data from ~2,000 cheetahs monitored between 2012 and 2025. Together, these models provide complementary and independent lines of evidence to support adaptive decision-making under the Non-Detriment Findings framework required for CITES Appendix I species.

Network analysis identified a connected core metapopulation of 48 reserves and 22 satellite populations. Simulations indicated positive population growth, high genetic retention, and near saturation of available habitat, indicating that space, rather than reproduction, limits expansion. Moderate, regulated harvest from the core metapopulation remained sustainable, particularly under scenarios of continued reserve expansion.

Results demonstrate that managed metapopulations can provide a practical conservation framework for wide-ranging, low-density species in fragmented landscapes, providing a scalable model for sustaining population viability through coordinated translocation, population modelling, and adaptive management where natural connectivity has been lost.

Translocations as a tool for promoting immunogenetic diversity and disease resilience

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 82

Prof. Carolyn Hogg¹, Dr. Andrea Schraven¹, Dr. Soleille Miller¹, Ms. Meg Emery¹, Dr. Luke Silver¹, Prof. Katherine Belov¹

1. The University of Sydney

Conservation translocations are a key tool for managing species. IUCN guidelines indicate that there “be strong evidence” threats have been identified and minimised before undertaking translocations – this is problematic in the presence of infectious diseases. Wildlife disease occurrences are increasing, due to increased surveillance, fragmented or reduced habitat, and climate change. Increases in genomic sequencing and cost reductions improve our ability to undertake targeted translocations to promote immunogenetic diversity and disease resilience. However, these actions are often questioned by those with concerns over genetic swamping, loss of genetic variation outside of the immune regions, and lack of understanding of the interplay between disease and genetic variation.

Here we present three case studies 1) using target gene capture to investigate disease resilience and Tasmanian devil immunogenetic diversity, using the data to produce immunologically fitter offspring; 2) using whole genome sequencing to investigate immunogenetic diversity in the critically endangered orange-bellied parrot and applying this to translocations from captivity to the single wild population; and 3) understanding the lack of knowledge of frog immunogenetics and how improving the use of immunogenetic data can inform captive breeding and release programs in the presence of chytrid.

Collectively these case studies will highlight to practitioners the benefits that can be gained from understanding the immune system of species impacted by disease and where conservation translocation actions are needed for species survival and long-term viability. We will provide a clear pathway on how to gain this information and then use it in decision-making.

Using eastern black rhino translocations to support forensic investigations in Kenya

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 45

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Kenya is a stronghold for remnant populations of the Eastern Black Rhino (*Diceros bicornis micheali*), representing a third of the global population. The subspecies is an IUCN red list critically endangered taxon which experienced catastrophic historical declines driven by illegal poaching for rhino horn. Within Kenya, they were extirpated from over 75% of their original range. In response, the Kenya Wildlife Service established intensive protection zones (IPZs) and fenced sanctuaries. Numbers rebounded from fewer than 100 individuals to more than 1,000 by 2024. Rapid growth has required regular translocations to alleviate density, establish new populations, and restock former rangelands.

These operations create valuable chances to conduct disease surveillance and sample for genomic analyses that guide management of genetic diversity and inbreeding. Furthermore, they also offer a unique opportunity to support forensic investigations. During captures, horns are fitted with microchips and transponders, and samples are collected to build a national genetic reference database for effective prosecution of wildlife crime. By genotyping each rhino with a panel of microsatellite markers, managers can assign unique genetic profiles to individuals. When horns are seized or carcasses are discovered with horns removed, DNA can be matched against the database to identify the source population or the exact individual, even decades later. This evidentiary link connects seized products to crime scenes and strengthens court cases. Kenya's integrated approach shows how routine translocations can simultaneously deliver biodiversity outcomes and create a powerful, replicable forensic tool against wildlife crime.

Wildcat conservation translocation in Scotland: A model for carnivore recovery in the UK

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 75

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Following a conservation status review by the IUCN Cat Specialist Group in 2018 the wildcat population (*Felis silvestris silvestris*) in Scotland was regarded as non-viable with recovery only possible through reinforcement / reintroductions. In 2019 the first UK wildcat reinforcement recovery project, Saving Wildcats, was launched, supported by the EU LIFE programme. This European project, led by the Royal Zoological Society of Scotland (RZSS), in partnership with NatureScot, Forestry & Land Scotland, Cairngorms National Park Authority, Nordens Ark and Junta de Andalucía, aimed to deliver recovery actions through threat mitigation and conservation breeding-for-release. Informed by other global carnivore breeding for release translocation projects including Iberian lynx (*Lynx pardinus*), European mink (*Mustela lutreola*) and Black footed ferret (*Mustela nigripes*), Saving Wildcats developed a dedicated Conservation Breeding for Release Centre, at RZSS Highland Wildlife Park, for ex-situ breeding and pre-release management. To date these efforts have resulted in the release of 46 wildcats into the 'Cairngorms Connect' project area within the Cairngorms National Park, Scotland, the biggest habitat restoration project in Britain. This presentation provides a summary of the project's strategic approach to wildcat translocation, challenges and lessons learnt and an overview of the progress following annual releases from 2023 – 2025. This evidence-based approach to translocation project management not only highlights the potential for wildcat recovery across the UK but demonstrates how the work from Saving Wildcats can act as model for other carnivore recovery efforts across the globe.

Wildlife reintroductions in peri-urban landscapes: A case study on Milawul, Australia

Oral – Full (12 mins + 3 mins Q&A) - Abstract ID: 95

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Reintroductions in highly modified landscapes present opportunities for community engagement, alongside challenges posed by threats such as vehicle strikes, predation by domestic pets, and human disturbance.

We are reintroducing bush stone-curlews (*Burhinus grallarius*) to Milawul (Phillip Island), a peri-urban island in southeastern Australia with >14,000 permanent residents and significant national and international tourism. The project is multidisciplinary, incorporating social research, pre-release behavioural assays, and post-release monitoring of the birds to identify diverse factors shaping success.

A community survey (n = 298) at the time of release showed >80% of respondents supported the bush stone-curlew program and threatened species reintroductions in general, with trust in Phillip Island Nature Parks as the key predictor of support. We provide regular updates and offer community members opportunities to participate in fieldwork and contribute sightings via citizen science portals.

Vehicle strikes are the primary cause of mortality of the reintroduced birds. We are combining community-based interventions (e.g., media outreach, road signage) with experimental trials that compare survival across treatment groups and explore the role of individual personality in release success.

Pre-release behavioural assays suggest that personality may play a role in the birds' short-term survival. Wild exposure prior to release did not increase the likelihood of success. Further experiments, such as vehicle headlight-conditioned aversion, will be trialled to determine whether birds can learn to perceive the threat posed by vehicles.

This case study highlights the complexities of peri-urban reintroductions and the importance of integrating social and ecological approaches to maximise the success of translocations.

Oral – Speed

45 years of GREFA: Key actions and initiatives

Oral – Speed (3 mins) - Abstract ID: 222

Mr. Enrique Murciano¹, Mr. Ernesto Álvarez¹

1. GREFA

GREFA is a non-governmental organization that has spearheaded wildlife conservation for 45 years. Its operational model is integrated through a tripartite infrastructure: a specialized wildlife recovery center (comprising a veterinary hospital, captive breeding facilities, and rehabilitation units), an environmental education team, and extensive fieldwork operations. These pillars form the cornerstone for GREFA's large-scale conservation projects.

The organization's primary focus lies in conservation translocations, which are designed to achieve three strategic objectives:

- Ecological Restoration: Re-establishing ecosystem structure and functionality while enhancing biological diversity.
- Population Recovery: Improving the conservation status of threatened species or populations to increase their long-term survival probability.
- Public Awareness: Utilizing biodiversity preservation as a vehicle for community sensitization and education.

Methodologically, GREFA's scope extends beyond the Iberian Peninsula, collaborating with projects across Europe by exporting technical methodologies and providing individuals for international translocations. Specimens are sourced from recovery centers, captive breeding programs, wild captures, or controlled nest harvesting. These initiatives are executed through a multidisciplinary lens, incorporating scientific feasibility studies, socio-economic and cultural impact assessments, and strategic environmental education.

GREFA's conservation efforts focus on high-priority taxa, including large raptors such as golden eagle, Spanish imperial eagle, white-tailed eagle, and Bonelli's eagle; scavenging birds as black vulture, Egyptian vulture, griffon vulture, and red kite; other raptors such as Montagu's harrier and lesser kestrel and reptiles such as Mediterranean pond turtle (*Mauremys leprosa*).

By synthesizing clinical veterinary expertise with rigorous ecological monitoring, GREFA ensures a holistic intervention strategy for the preservation of European biodiversity.

A future beyond fences? Restoring species outside of fenced safe havens in Australia

Oral – Speed (3 mins) - Abstract ID: 127

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1. Australian Wildlife Conservancy

The Australian Wildlife Conservancy's Mt Gibson Wildlife Sanctuary, on Badimia Country in Western Australia, has been the focus of a large Mammal Restoration Project. Over the past ten years, ten locally-extinct mammal species have been translocated both inside and outside a 7,828 ha feral predator-proof fenced area. Initial reintroductions were into the fenced area, with most of these species now meeting medium- or long-term success criteria and showing signs of long-term viability. Recent reintroductions have been to the landscape surrounding the fenced area, where invasive predators are present, in conjunction with an extensive invasive species control program. Species released outside the fenced area have included the Brushtail Possum (or Goomal, *Trichosurus vulpecula*), Western Quoll (or Chuditch, *Dasyurus geoffroii*) and Brush-tailed Bettong (or Woylie, *Bettongia penicillata*). Goomal and Chuditch (in the Noongar language) are in the early stages of establishing a population over the greater sanctuary, with high rates of survival and evidence of successful breeding. The first Woylie (in the Noongar language) translocation from the reintroduced population established within the fenced area to outside of the fenced area took place in 2025, and has met short-term success criteria, with another release planned for 2026. Intentional releases of species beyond the fence are enabling us to explore what conservation actions are possible in the presence of invasive predators. Lessons learned from Mt Gibson will inform future translocations at this and other sites, and provide insights into the opportunities and challenges associated with large, complex, landscape-scale conservation and restoration programs.

A One Health lens for the One Plan approach: Health outcomes surrounding the reintroduction of a threatened viper

Oral – Speed (3 mins) - Abstract ID: 116

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As One Plan activities like reintroductions increase, One Health considerations must be incorporated. The eastern massasauga rattlesnake (*Sistrurus catenatus*) (EMR) is at risk of extinction. An Association of Zoos and Aquariums SAFE (Saving Animals From Extinction) program has been established to guide recovery actions. The Carolinian population in Canada is estimated at <100 individuals, highlighting the need for ex-situ breeding and conservation translocation (MECP, 2023; CHOQUETTE et al., 2024).

As part of an EMR translocation we aimed to 1) compare disease risk analysis (DRA) predictions for the project with observed outcomes, 2) surgically implant radio-transmitters (RT) in released EMRs, improving on previous trials (LENTINI et al., 2011), and 3) analyse health outcomes post-release.

The DRA identified 13 high-risk hazards, all infectious (including several viruses and *Ophidiomyces ophiodiicola*) but no evidence of these was found in the source population. Twenty-two juvenile EMRs were implanted intra-coelomically with a PD-2 RT^A. Four experienced perforation of the antenna through the coelomic membrane, requiring revisional surgery pre-release. Twenty-one (n = 9 females, 12 males) were translocated in August 2024 and monitored through radio telemetry until spring 2025.

Rather than infectious diseases, predation and failure to overwinter were the major causes of mortality. Hazards highlighted in the DRA, including *Salmonella* spp., gram negative bacteria, and nematodes, were observed. Revisions were made for further translocations in 2025, with improved survival results into 2026.

We advise continued emphasis on health assessments throughout the reintroduction process, from prior disease testing to post-mortem examination, to better inform future conservation translocations.

A participatory modelling approach to investigate the influence of social and ecological landscape permeability on meso-carnivore recovery following translocation

Oral – Speed (3 mins) - Abstract ID: 140

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1. University of Exeter, 2. Vincent Wildlife Trust

Habitat connectivity is a key ecological factor affecting carnivore recoveries following conservation translocations. Within human-altered landscapes significant embedded social components affect ease of movement for a species through and between habitats. At local scales, the ecological permeability of fragmented habitats varies in relation to land-use practices, which can be heavily underpinned by perceptions of species' belonging by landowners and communities.

The conservation status of mammalian carnivores in Britain has improved markedly since the mid-20th century. As recovering meso-carnivore species increasingly colonise mixed-use agricultural landscapes from remote refugia or translocation sites, understanding the influence of ecological and social habitat permeability is vital for assessing future recovery scenarios and informing management practices towards closer human-meso-carnivore co-existence. However, in-depth analyses of habitat permeability beyond road fragmentation assessments are limited, and participatory mixed-method studies incorporating local landowner perspectives are especially lacking.

Employing a place-based approach, this research presents a novel method of integrating participatory mapping focus group data into resistance layers within connectivity modelling using the Omniscap software, incorporating local landowner knowledge and conservation practitioner perspectives to model both social and ecological permeability. This approach is applied to investigate local land-use affects on disparate recovery patterns of European polecat (*Mustela putorius*) and pine marten (*Martes martes*) in Wales and Scotland.

Key socio-ecological permeability barriers, pinch points and corridors identified in output maps can inform land management and community collaboration to improve recovery prospects, and this participatory approach may be replicated to assess longer-term recovery scenarios for other carnivore guilds following species translocations

A unique window of opportunity to establish a satellite insurance population for a critically endangered Australian possum

Oral – Speed (3 mins) - Abstract ID: 33

***Dr. Darcy Watchorn*¹, *Dr. Dan Harley*¹**

1. Zoos Victoria

Climate-change-driven translocations are increasingly considered for range-restricted and cold-adapted species threatened by warming climates and increasing disturbance regimes. In Australia, however, most threatened mammal translocations occur on predator-free islands or within fenced reserves because of the impacts of introduced predators. While effective for population establishment, these settings can constrain opportunities to establish new populations in landscapes that may function as long-term climate or fire refugia.

Leadbeater's possum (*Gymnobelideus leadbeateri*) is a critically endangered arboreal marsupial restricted to a small part of south-eastern Australia. It depends on cold, wet montane forests and large, old hollow-bearing trees for nesting. The species faces multiple interacting threats, including a legacy of extensive native forest logging, climate change, and increasingly frequent and severe wildfires, which together accelerate the loss of these critical habitats.

Captive breeding has proven largely unsuccessful, and few *in situ* management options directly address these emerging risks. To spread risk and reduce extinction likelihood, we assessed the feasibility of assisted colonisation to establish a satellite insurance population. This assessment identified multiple restricted areas capable of supporting small populations (~200–500 individuals), characterised by comparatively low fire risk and projected climatic stability.

Unlike many Australian small mammals, the arboreal ecology of Leadbeater's possum may reduce encounters with introduced terrestrial predators, potentially allowing establishment in open landscapes. Combined with a remaining wild population of several thousand individuals, this creates a rare conservation window in which higher-risk interventions, such as translocation to climate- and fire-refugia, can be explored before further population declines restrict these options.

Assessing disease risk for the reintroduction of the European wildcat (*Felis silvestris*) to England

Oral – Speed (3 mins) - Abstract ID: 231

Dr. Romain Pizzi ¹

1. Rewilding Medicine

Britain is one of the most biodiversity depleted countries in Europe, with numerous iconic wildlife species originally present now being extinct. Once widespread in English woodlands the European wildcat (*Felis silvestris*) was declared extinct in England the 1860s, with the last confirmed sighting in 1849. Since the 1980s, the small remaining wildcat population in Britain has been restricted to small, fragmented regions in northern Scotland. A disease risk analysis was performed for the reintroduction of wildcats to England considering different possible founder sources: wildcats currently captive in the UK; the importation of wildcats from Europe currently bred in captive facilities such as zoos; and the importation of wild-born wildcats, from trapping or from rehabilitation facilities. This DRA identified 126 hazards, of which 101 hazards were infectious or parasitic diseases, and 23 hazards were evaluated as high risk. Of these 21 were infectious diseases, of which 8 were viral. While risks from UK and European captive bred wildcats can be reasonably mitigated, this is not the case for wild-born wildcats from Europe. The high prevalence of incurable viral diseases evaluated as high-risk hazards, mean a high proportion of trapped wildcats would likely fail initial disease screening and be unsuitable for captive breeding or release. The costs, likely high numbers of euthanasia, and welfare concerns make wild-born European origin wildcats an unsuitable source population for the species reintroduction in England.

Conservation breeding of Critically Endangered Asian vultures – Successful implementation and integration with in-situ measures in Nepal and South Asia

Oral – Speed (3 mins) - Abstract ID: 176

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Three resident Asian vulture species have suffered the most dramatic extinction-trajectory declines of any recently abundant birds. In India, white-rumped vultures declined by 99.9% in little over a decade. Across South Asia, the primary cause of the declines was veterinary use of the non-steroidal anti-inflammatory drug (NSAID) diclofenac in cattle – toxic to vultures feeding on their carcasses. An agreed 2004 recovery plan prioritised: 1) the removal of diclofenac from the vulture food chain, and 2) establishing genetically viable captive populations with a view to future releases once the environment was demonstrated to be safe.

Over 800 individuals of three species of *Gyps* vulture are held in captive breeding centres across South Asia. Meanwhile the primary threats are being addressed through multi-level advocacy backed up by pharmacy surveys, monitoring of GPS-tagged vultures and vulture population monitoring. Drug safety-testing has identified other veterinary drugs that are toxic to vultures, as well as two that are safe. Removing the NSAID threat has been successful in Nepal where populations are recovering, whilst there are ongoing challenges in India, where populations have stabilised at low levels. The Nepal breeding programme was concluded in 2023 when the remaining birds there were released. High survival of GPS-tagged wild vultures and a rapidly increasing population, led to the declaration of the world's first genuinely safe 'Vulture Safe Zone'.

Vultures released from captive breeding programmes across the region are successfully breeding, while tracking continues to provide evidence of causes of mortality, crucial for ongoing threat assessments. Although the running of the remaining breeding centres is costly, they hold important safety-net populations for three hugely depleted species and require ongoing management planning.

Conservation translocations across the globe: Systematic literature review, meta-analysis, and knowledge gaps

Oral – Speed (3 mins) - Abstract ID: 148

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Monitoring and evaluation are central to adaptive management in conservation translocations (CTs), enabling practitioners to assess outcomes, refine protocols, and learn from prior efforts. However, inconsistent publication may constrain evidence-based decision-making.

This study evaluates the current state of knowledge on terrestrial mammal CTs worldwide through a systematic literature review and meta-analysis. For each case, we extracted translocation metadata, protocols, post-release monitoring methods, and outcomes. Quantitative outcomes were classified into five categories: survival, reproduction, establishment, population growth/viability, and community-level effects, capturing individual-, population-, and community-level responses across early post-release establishment, subsequent population growth, and longer-term regulatory phases.

Although publication frequency has increased, documented case studies (n=230) remain low relative to the scale of CT efforts evident within conservation practice. Publication patterns vary across taxa and regions, and metrics used to evaluate outcomes are highly heterogeneous, limiting comparability. Patterns in focal species revealed two key inconsistencies: a mismatch between global IUCN classifications and local conservation efforts, and an important knowledge gap for the most threatened species. Studies on community-level effects are underrepresented relative to individual- and population-level metrics. We highlight factors most often reported and tested in the literature (e.g., sex, age), noting that frequent reporting may reflect data availability rather than confirmed biological relevance (e.g., environmental conditions). Meta-analyses of standardized quantitative outcomes explore how translocation protocols, species groups, and post-release monitoring drive individual-level metric outcomes.

This work identifies knowledge gaps, reporting biases, and provides relevant insights to guide more standardized and ecologically meaningful assessment frameworks for future conservation translocations.

Developing effective conservation translocation programmes for Atlantic salmon

Oral – Speed (3 mins) - Abstract ID: 83

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North Atlantic salmon (*Salmo salar*) is an ecologically, culturally and economically significant species. Despite strong protections, populations have continued to decline across their native range. Declines are largely driven by interacting factors lowering survival during the marine phase. The loss of salmon threatens ecosystem functioning, rural economies and cultural traditions.

The UK supports 30% of the global stock, and recent population trends here are especially concerning. Many rivers now report salmon numbers below conservation thresholds, contributing to the reclassification of Atlantic salmon here as “endangered”.

UK salmon management efforts largely focus on improving freshwater habitats and limiting exploitation, but these largely fail to address declining marine survival. Recently, attention has turned toward interventionist conservation strategies, labelled as “recovery stocking.” One strategy: smolt-to-adult supplementation (SAS) raises wild-caught juveniles in captivity until adulthood before release to reproduce. While this approach can increase survival by protecting individuals during their marine phase, it carries risks.

Evidence for its long-term effectiveness remains limited, and its role in salmon conservation is debated. With reference to a population restoration project being undertaken by the River Dee Trust in Scotland, we highlight the challenges of delivering conservation translocations, emphasising the need for clear planning and objectives, and transparency in stakeholder involvement. We consider the practicalities of reframing salmon “recovery stocking” practices under the broader banner of species conservation translocations, aligning better with international guidelines. We argue for greater clarity in terminology and conservation strategy development for the species, with increased alignment amongst organisations to deliver effective conservation outcomes.

Disease risk analysis, management and outcome monitoring in conservation translocations

Oral – Speed (3 mins) - Abstract ID: 177

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Disease risk analysis (DRA), disease risk management (DRM), and post-release health surveillance (PRHS) are central to managing disease risk in conservation translocations. These processes are intended to identify hazards, assess and update risk, and guide mitigation and monitoring decisions across a project's lifecycle. However, in practice they are often treated as separate components rather than as an integrated decision-making pipeline. This separation creates important disconnects. DRA may be conducted without consistent comparison of the predicted effectiveness of DRM alternatives, and PRHS is often implemented without clarity in how it feeds back into cyclical updating of DRM evaluations nor how it triggers state-dependent reactions, including exit strategies. As a result, opportunities for adaptive management and efficient resource use may be missed. In addition, DRA, DRM, and PRHS—like all predictive evaluations—are susceptible to human biases and noise, which can further influence decision-making. Here, we review the DRA–DRM–PRHS workflow, highlighting key structural disconnects and associated cognitive biases. We propose practical approaches to better integrate these components, including a simple checklist to support informed, transparent and defensible decisions.

Does behavioural flexibility play a role in the conservation breeding of the critically endangered European mink?

Oral – Speed (3 mins) - Abstract ID: 218

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Behavioural competency and flexibility is essential for animals to survive in the wild, yet for captive-born animals it can be compromised by early rearing under human management, jeopardising the success of conservation translocation programmes and raising welfare concerns. This is particularly important for species whose survival relies in conservation breeding actions, such as the critically endangered European mink (*Mustela lutreola*). In this species, a large proportion of captive-born males fail to mate for reasons consistent with environmental and/or management effects on the development of their courtship behaviour. In this study, we test the hypothesis that individual differences in behavioural flexibility, both under test (e.g. problem solving paradigm) and spontaneously (e.g. propensity to form routines) predict European mink reproductive behaviour and success. The study was carried out at the Species Conservation Breeding Centre in Tallinn Zoo (which houses the largest conservation breeding population for the species as part of the EAZA's Ex situ Programme). We tested 22 male mink (6 proven breeders, 7 non-breeders [abnormally passive/aggressive during courtship], and 9 with no breeding experience) and recorded their baseline behaviour from CCTV cameras, as well as their courtship behaviour and reproductive success during breeding seasons 2023-2026. We present preliminary results of this study and on-going work aiming to expand this hypothesis to post-release behaviour that have wider applications to other conservation translocation projects sourcing captive-born individuals.

Evaluating the demographic success of translocations: A multi-criteria operational tool to assess progress

Oral – Speed (3 mins) - Abstract ID: 62

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As the number of conservation actions keeps increasing to mitigate the global biodiversity decline, assessing their impact objectively becomes urgent. Yet, most of these actions lack consistent criteria. In conservation translocations, managers use a wide range of criteria to assess success, making any comparisons between or within species irrelevant. Comparably as the IUCN Red List does to assess extinction risk, we identified categories and criteria to evaluate the progress of translocation programmes. We developed a multi-criteria evaluation grid based on four demographic components (survival, recruitment, spatial distribution, population growth) allowing to differentiate key success steps of translocated population's dynamic. The criteria offer a parsimonious and complementary approach covering the key demographic dimensions of population dynamics and fit monitoring data usually collected, irrespective of species. The broad applicability of this approach was illustrated on contrasted taxonomic groups from large vertebrates to herbaceous plants. In addition, we evaluated the availability of monitoring data in a representative number of bird translocation programmes in Europe to apply these demographic progress criteria and ultimately analyse their drivers. Our approach may enable the broad-scale assessment of the demographic success of translocation programmes consistently, while accounting for the availability of monitoring information. Regularly assessing demographic progress towards success will allow the adaptive management of conservation translocations.

Financing conservation translocations for biodiversity recovery

Oral – Speed (3 mins) - Abstract ID: 251

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1. University of Kent

Innovative biodiversity finance mechanisms, including biodiversity credits, are emerging as promising tools for mobilising private investment to support nature recovery. At the same time, conservation translocations, including reintroductions, reinforcements, and assisted colonisation, are increasingly used to restore species, recover ecological processes, and accelerate ecosystem restoration, yet their potential contribution to biodiversity-credit systems has received little attention. Here, we explore how conservation translocations could support the development of high-integrity biodiversity credits by considering their alignment with the International Advisory Panel on Biodiversity Credits framework. We discuss how conservation translocations relate to four core crediting criteria, including additionality, baselines, durability, and leakage, as well as the broader principles of verified outcomes for nature, equity and fairness for people, and good governance for markets. We suggest that conservation translocations are well positioned to underpin biodiversity credits because they generate measurable species-level outcomes, are typically supported by rigorous long-term monitoring, and can restore ecological functions beyond habitat condition alone. However, challenges remain, including demonstrating long-term permanence, linking species recovery to spatially explicit biodiversity accounting, ensuring equitable governance and benefit-sharing, and avoiding perverse incentives that could undermine ecological integrity. We argue that biodiversity-credit principles should be integrated into conservation translocation planning from the outset, rather than being considered retrospectively. Doing so could strengthen both biodiversity-credit integrity and conservation practice by promoting long-term stewardship, adaptive management, transparent governance, and sustained financing. We propose that carefully designed translocation-based biodiversity credits could provide a credible pathway for linking private finance to species recovery, ecosystem functioning, and landscape-scale biodiversity restoration.

Freshwater pearl mussel conservation, Cymru – a programme of habitat restoration, captive breeding and reintroduction

Oral – Speed (3 mins) - Abstract ID: 181

Dr. Thomas Doherty-Bone¹, Dr. Tristan Hatton-Ellis¹, Dr. Suzanne Hearn¹, Dr. John Taylor¹

1. Natural Resources Wales

The Freshwater Pearl Mussel (*Margaritifera margaritifera*) is critically endangered in Wales, caused by a total failure of recruitment due to loss of suitable habitat for survival of juveniles. It is estimated that the species would be extinct in Wales within two decades if no action was taken. Natural Resources Wales instigated a dedicated long-term Freshwater Pearl Mussel Recovery project including habitat restoration, captive rearing and release. Habitat restoration works are being prioritised in known pearl mussel stronghold areas, ensuring that river bed conditions can retain stable, clean gravel and sand for mussel reproduction. This includes restoring optimal fish host habitat. Captive rearing is now increasingly successful, with small numbers of captive bred mussels becoming large enough to release. In 2024, releases of 120 x 5+ year old captive bred mussels took place in one NRW-owned stretch of river in Gwynedd. This made use of soft-release techniques, including concrete silos and cages to monitor individual mussel responses to the river conditions before full release. Survivorship varied, with 70% of the first batch of larger mussels surviving to full release into the riverbed. A second batch had a lower survivorship at 61% prior to full release. Full release consisted of attaching PIT tags to mussels, which were then buried just underneath gravels and monitored using scanners to identify position of individuals. 90% of all individuals released have been detected as of early 2026. This and additional rivers are now being prepared for similar releases across Wales.

From field to decision in hours: Automating data pipelines for adaptive conservation

Oral – Speed (3 mins) - Abstract ID: 150

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Adaptive management in conservation translocations is often constrained by delays in data processing, limited monitoring integration, and slow feedback to decision makers. We present an approach that addresses these challenges through the automation of data management and reporting in the conservation introduction of the Sihek (*Todiramphus cinnamominus*) on Palmyra Atoll. Our framework integrates targeted ecological monitoring with a fully automated pipeline linking field data collection, centralized databases, real-time analysis, and rapid reporting. This system enables near real-time synthesis of ecological indicators, allowing managers to assess potential impacts—particularly the role of the species as a novel top predator—and respond within hours rather than months. Automated reporting tools feed directly into a structured decision cycle, supporting timely evaluation of management actions and predefined triggers for intervention or exit strategies. As of 2026, this approach has improved responsiveness and transparency, with no evidence of significant ecological impacts resulting from sihek introduction. Our results highlight how automation can enhance adaptive decision support in conservation practice.

From uncertainty to action: Integrating formal expert elicitation and disease risk analysis for a black-veined white (*Aporia crataegi*) reintroduction

Oral – Speed (3 mins) - Abstract ID: 217

***Dr. Claudia Carraro*¹, *Dr. Katie Beckmann*², *Ms. Georgina Gerard*¹, *Dr. Amanda Guthrie*¹, *Dr. Joseph Heaver*¹, *Dr. Caio Kenup*¹, *Dr. Bonnie Metherell*³, *Dr. Bethany Smith*¹, *Ms. Gail Sucharitakul*⁴, *Prof. Chris Thomas*⁵, *Prof. John Ewen*¹**

1. Zoological Society of London, 2. The University of Edinburgh, 3. Knepp Wildland Foundation, 4. Imperial College London, 5. University of York

Conservation translocations of invertebrates are often limited by scarce data and high uncertainty, complicating disease risk assessment and regulatory decisions. This novel semi-quantitative Disease Risk Analysis (DRA) for reintroducing the black-veined white butterfly (*Aporia crataegi*) to England illustrates how structured approaches can support decision-making under uncertainty.

A panel of experts provided probabilistic estimates, using the IDEA (Investigate, Discuss, Estimate, Aggregate) protocol, on key questions covering hazard co-introduction, exposure, and consequences under three different biosecurity scenarios. Our approach enabled transparent quantification of uncertainty, highlighted areas of agreement and disagreement, and reduced reliance on unstructured judgement.

Despite substantial uncertainty and limited evidence base, the experts generally found no disease risks likely to preclude translocation, particularly for adult movement under enhanced biosecurity. Risks were generally thought to be low for hazard co-introduction but higher and more uncertain for infection and mortality within translocated populations, especially if eggs were moved. Parasitoids were the only hazard group considered to have the potential to impede establishment under worst-case scenarios.

DRA is inherently a decision process based on making predictions under uncertainty. Our approach provided a transparent, defensible basis for decision-making, supporting selection of a preferred translocation pathway, identification of proportionate mitigation measures, and licensing of the reintroduction.

Growing entanglements: How twinflower (*Linnaea borealis*) translocation reworks relations between people and pinewoods

Oral – Speed (3 mins) - Abstract ID: 130

Mx. Pip Wilson¹

1. University of Leeds

It is widely recognised that translocated species can change ecosystems, such as through trophic cascades, but what is rarely considered is how they transform human societies, and vice versa. Twinflower, a charismatic flora of the Caledonian Pinewood, has long been in decline. In response, Plantlife are reinforcing their population, distribution and genetic diversity through a translocation programme across the Scottish Highlands. Ethnographic fieldwork in the Cairngorms National Park (Spring-Autumn 2025) shows how this work draws humans and twinflower into new relations that blur boundaries between the wild and the human and reveal how both shape landscapes together. Humans and twinflower are drawn into each other's worlds through the practical work of translocation. Volunteers cultivate wild cuttings in their gardens before planting them in woodland forming close, tactile relationships. Spending time with their "nose amongst the mosses", volunteers begin attending to how twinflower interacts with other species and scales of the forest. Advancing this awareness of pinewoods and the place of humans and twinflower, this project requires people to be pollinators and to graze heather (*Calluna vulgaris*) and blaeberry (*Vaccinium myrtillus*) with secateurs mimicking excluded herbivores, transitioning humans from gardener to quasi-wild animal. This also highlights the tensions between translocations and other conservation agendas such as forest regeneration while suggesting that herbivore-ground flora dynamics might be supported through more wolf-like deer management where large carnivore translocations remain unlikely. By involving humans so directly, twinflower translocation reveals how drawing people into these relationships can create livelier landscapes and strengthen long-term ecological stewardship.

Headstarting for wader population recovery

Oral – Speed (3 mins) - Abstract ID: 132

***Dr. Lynda Donaldson¹, Dr. Chris Batey¹, Dr. Malcolm Burgess¹, Ms. Nicola Dessi², Mr. Nigel Jarrett²,
Ms. Rebecca Lee¹, Dr. Alex Nicol-Harper², Prof. Jennifer Smart¹, Prof. Geoff Hilton²***

1. RSPB, 2. WWT

Headstarting involves the hatching or rearing of wild eggs or young in captivity, and the release of individuals into a new or existing population once independent. This translocation technique has been trialled in wader populations over recent decades, where declines are often driven by low levels of breeding productivity. Here, we use population modelling to demonstrate that using this tool, ensuring young survive the most vulnerable early life-stages, can increase per capita productivity by an order-of-magnitude, and lead to a substantial increase in population growth. In turn, this can buy time for conservation measures to be implemented, accelerate recovery of small populations, or encourage the colonization of new or improved habitats. For the first time, headstarting was trialled for the recovery of a threatened population of black-tailed godwit (*Limosa limosa*) breeding in the UK, from 2017-2022. Results from this trial showed that headstarted birds had comparable survival, migratory behaviour and breeding success to wild-reared conspecifics, and thus a significant boost to the target population was recorded. We will discuss the outcomes from this project, demonstrating the application of this technique and highlight the potential for this tool to assist with the recovery of other threatened wader populations.

Impact of stochastic events on translocation demographics: Restoring a stable age distribution for the Ko'ko' Recovery Program

Oral – Speed (3 mins) - Abstract ID: 187

Ms. Suzanne Medina¹

1. Guam Department of Agriculture, Division of Aquatic & Wildlife Resources

Conservation translocations of endangered species rely on consistent recruitment until populations are established. Many are derived from small source populations that are highly vulnerable to stochastic events. Between 2020 and 2023, the Guam Department of Agriculture's ko'ko' captive breeding facility—the species' main source for releases—faced a triple threat of stressors: the COVID-19 pandemic, a little fire ant (*Wasmannia auropunctata*) infestation, and the devastation of Super-Typhoon Mawar.

The combined effect of these events halted reproduction, resulting in an inverted age pyramid. Social distancing reduced staffing to levels insufficient for the intensive behavioral observations required for breeding pairs. Simultaneously, the LFA infestation created a threatening environment for ko'ko'. Prolonged inability to maintain the facility during these crises left vacant enclosures damaged, further delaying the recovery of breeding operations. By 2023, only ten birds had successfully fledged over a four-year period, leaving a critical deficit in the 0–4 age cohorts.

Efforts in 2024–2026, including successful LFA eradication, stabilized the foundation with over 40 new offspring. However, a new management challenge emerged: a high number of post-reproductive birds occupying space required for younger, release-ready cohorts. To resume the target of 75-100 chicks annually for releases on the island of Rota, the program now navigates the demographic transition from an aging population to a captive population with a stable age distribution required to sustain the conservation translocation program. This, unfortunately, will delay releases on Rota until the proper demographics are achieved, however, the door may open for smaller releases on Guam.

Increasing number of birds released enhances success in passerine translocations

Oral – Speed (3 mins) - Abstract ID: 40

Ms. Helena Navalpotro¹, Ms. Carmén Quiros², Dr. Gerard Bota Cabau¹, Prof. Stefano Canessa³, Prof. Juan Traba⁴

1. Forest Science and Technology Centre of Catalonia, 2. Universidad Autonoma de Madrid, 3. Division of Conservation Biology, Institute for Ecology and Evolution, 4. Terrestrial Ecology Group (TEG-UAM), Departamento de Ecología, Universidad Autónoma de Madrid, Madrid

Translocation is a conservation tool that has been implemented for decades to mitigate species decline (reinforcement) and local extinctions (reintroduction). However, this strategy is controversial and complex due to the wide range of different techniques, the requirement of high investment and the variability in results. Additionally, there is a knowledge gap about the variables that influence translocation success, and even how to estimate success. Despite these challenges, translocations have sometimes achieved very positive outcomes, so we need to deepen our understanding of the factors related to their success. In this study, we conducted a review of 50 conservation translocations of Passeriformes, implemented in different conditions and regions. First, we defined variables to be used as proxies of translocation success. Then, our findings suggested the main factors determining success in conservation translocations were related to translocation logistics. Higher success rates were observed when more birds were released and when birds were released using a soft-release method. We provide useful information to guide the researchers on the variables that need to be more carefully considered to measure success and increase efficiency of future translocation efforts.

Integrating CRISPR testing outside the genetics lab: Streamlined species identification assays to support conservation translocation of critically endangered delta smelt (*Hypomesus transpacificus*)

Oral – Speed (3 mins) - Abstract ID: 85

***Dr. Andrea Schreier*¹, *Dr. Ravi Nagarajan*¹, *Ms. Natalie Kolm*¹, *Ms. Leigh Sanders*¹, *Dr. Melinda Baerwald*², *Ms. Alisha Goodbla*³, *Ms. Denise Goodman*⁴**

1. University of California Davis, 2. California Department of Water Resources, 3. University of British Columbia, 4. United States Fish and Wildlife Service

The delta smelt (*Hypomesus transpacificus*; DSM) is a small fish endemic to the San Francisco Estuary (SFE) that has precipitously declined since the early 2000s and is currently sustained by a federally funded conservation supplementation program. The US Fish and Wildlife Service (USFWS) conducts extensive, year-round monitoring to track the distribution of DSM and the fate of released fish, but efforts have been hindered by morphological similarity between DSM and an increasingly abundant invasive congener, the wakasagi (*Hypomesus nipponensis*; WAG). Though diagnostic genetic markers for DSM and WAG exist, genetic techniques like qPCR are time-consuming and require expensive instrumentation and molecular expertise. CRISPR-based genetic testing platforms like SHERLOCK provide a rapid, sensitive, and inexpensive alternative to qPCR that allows non-experts to perform genetic species identifications outside of a laboratory environment. We developed highly sensitive and specific SHERLOCK assays to distinguish between DSM and WAG using mucus swabs as input, with no DNA extraction needed. We worked closely with USFWS biologists to introduce independent DSM SHERLOCK species identification in their field office using pre-frozen, ready-to-use assay aliquots and a portable fluorescence reader with a user-friendly interface. SHERLOCK genetic testing has empowered USFWS field biologists to provide rapid, accurate DSM data to SFE co-managers to inform water operations. This talk will describe our collaborative efforts to integrate SHERLOCK into DSM monitoring, from training of field technicians to cross-lab validation and adaptive protocol refinement. It will end with a presentation of other possible applications for SHERLOCK in conservation translocation programs.

Integrating ecological and genetic insights to guide *Gambusia echelleorum* translocations in Bitter Lake National Wildlife Refuge, New Mexico

Oral – Speed (3 mins) - Abstract ID: 46

Ms. Casey Ernest¹, Dr. Peter Scott², Dr. James B. Johnson³, Dr. Michael Tobler¹

1. University of Missouri - St. Louis, 2. Eckerd University, 3. North Carolina Marine Fisheries

New Mexico gambusia, *Gambusia echelleorum*, occurs at two localities along the Pecos River in New Mexico. At Bitter Lake National Wildlife Refuge, one of the two New Mexico localities, populations are restricted to isolated springs and spring-fed sinkholes. Habitat loss, together with geographic isolation, small population sizes, and the introduction of invasive *Gambusia affinis*, have contributed to the species' designation as endangered since 1975. Translocation is a particularly compelling conservation strategy for *G. echelleorum* in this system, given the replicative nature of its sinkhole habitats. Slowing population decline in current *G. echelleorum* populations and establishing new populations in unoccupied sinkholes through translocations will be important for delisting this species all within their natural range. However, such management action requires investigation into the environmental and genetic predictors of successful colonization. To understand environmental conditions suitable for *G. echelleorum*, we measured temperature, salinity, dissolved oxygen, and pH in each season across two years and assessed fish community compositions in all occupied and unoccupied habitats. Despite the small spatial scale at which these habitats occur, the environmental conditions as well as species representation and abundance are highly variable. We also collected tissue samples for population genomic analyses, quantifying patterns of genetic variation, population differentiation, and potential introgression with invasive *G. affinis*, which will allow us to identify potential source populations suitable for translocations. By integrating ecological and genetic data, this study will provide a foundation for evidence-based translocation planning that informs practical strategies for the recovery of *G. echelleorum* within its natural range.

New guidelines provide decision-making tools to improve responsible translocation of displaced organisms

Oral – Speed (3 mins) - Abstract ID: 174

***Dr. Julie Sherman*¹, *Dr. Richard Kock*², *Mr. Vivek Menon*³, *Dr. Sonja Luz*⁴, *Mr. Pritpal Soorae*⁵, *Dr. N.V.K. Ashraf*⁶, *Dr. Tony King*⁷, *Dr. Axel Moehrenschrager*⁸**

1. Wildlife Impact, 2. Wildlife Disease Association, 3. IUCN SSC, 4. Mandai Nature, 5. IUCN Conservation Translocation Specialist Group, 6. Wildlife Trust of India, 7. Aspinall Foundation, 8. Panthera

Management of the plants, animals and fungi displaced by conflicts, legal and illegal trade, infrastructure development, agriculture, natural resource extraction, climate change and natural or human-generated disasters is a growing concern. Although the full scale of displacement is unknown, the number of individual organisms affected is enormous. For example, every year nearly three million individual live animals are legally traded, and millions more plants, animals and fungi are seized from international illegal trade. Many displaced organisms are irresponsibly translocated, posing significant health and welfare, disease, genetic, and behavioral risks to wild organisms, domesticated animals, ecosystems, and humans, as well as risks to the health and welfare of released individuals. However, displaced organisms are also a potential source of candidates for responsible releases that benefit species and ecosystem conservation or restore cultural values. New International Union for the Conservation of Nature (IUCN) guidelines on responsible translocation of displaced organisms, published in 2025, set out practical steps to aid decision-makers and practitioners in determining whether displaced organisms can be responsibly translocated based on international treaties, and the individual's source, health and life stage, behavior, infectious pathogen transmission risks, location, circumstances and conservation context. The guidelines provide instructions for minimising risks and maximising potential for responsible translocations of displaced wildlife. Where responsible translocation is not feasible, the guidelines point readers to alternate management options that adhere to precautionary principles for species and ecosystem protection. As implementation expands across the globe, the guidelines stand to significantly advance the practice of conservation translocation and policy.

Optimising captive breeding techniques to support golden sun moth (*Synemon plana*) reintroductions

Oral – Speed (3 mins) - Abstract ID: 164

***Ms. Maisie Walker Stelling*¹, *Prof. Saul Cunningham*¹, *Prof. Iain Gordon*¹, *Dr. Linda Neaves*², *Prof. Adrian D. Manning*¹**

1. The Australian National University, 2. Murdoch University

The Golden Sun Moth (*Synemon plana*, GSM) is a diurnal moth, and the flagship species of the critically endangered Natural Temperate Grasslands in southeastern Australia. The GSM is threatened by habitat loss from development, agriculture and competition with non-hostplant species. Larvae develop over 1-2 years, feeding on the roots of their native host species, though recently it has diversified to feeding on two Weeds of National Significance (WoNS).

Conservation translocations, including reintroductions, suffer from low success rates, and invertebrates are under-represented in conservation translocation research. Probability of success can be improved using ‘tactics’ which are techniques that can influence individual performance or population persistence post-release. Trials can be used to test the efficacy of these tactics, using small numbers to retain founders if a tactic fails.

Captive breeding is a useful avenue for boosting the number of individuals available for reintroduction trials, whilst limiting the impact on source populations; no captive breeding of the GSM has been documented to date. Our research aims to develop and test captive breeding methods to maximise survival and reproductive success of the GSM. Survival, growth, emergence and reproductive success of individuals are compared between native and WoNS hostplants, and two soil types, in greenhouse conditions. We expect larval growth and emergence to vary between treatments, providing insight into the effects of different host plants and soil types on the life cycle of the GSM. These findings will aid in guiding future GSM reintroductions and contribute to broader conservation strategies for other grassland invertebrates.

Post-release management and monitoring to support population recovery in the Arctic fox

Oral – Speed (3 mins) - Abstract ID: 194

Mrs. Kristine Ulvund¹, Dr. Marianne Furnes¹, Mr. Toralf Mjøen¹, Dr. Lars Rød-Eriksen¹, Ms. Lina Arntsen¹, Dr. Arild Landa¹, Dr. Øystein Flagstad¹, Dr. Nina Eide¹, Dr. Craig Jackson²

1. Norwegian Institute for Nature Research (NINA), 2. NINA

Optimising post-release outcomes remains one of the central challenges in conservation translocation practice. Using Norway's Arctic fox captive breeding programme as a case study, this presentation focuses on the factors shaping outcomes after release into the wild. We outline the process of selecting release sites based on habitat suitability, historical occupancy, connectivity, current genetic status and predicted prey availability. Reproduction in the Arctic fox is highly dependent on small rodent abundance that has historically displayed cyclic fluctuations. To mitigate the effects of variation in prey availability, supplementary feeding has been established in all sub-populations, aimed at improving survival and facilitating establishment, particularly during periods of low rodent availability.

Long-term monitoring enables annual population assessments of established foxes across Norway, Sweden, and Finland. In Norway, individual detection using DNA-analysis provides information on dispersal, reproduction, and genetic structure, allowing for adaptive, evidence-based management. Recent deployment of GPS collars on released individuals has further expanded our understanding of post-release behaviour and population connectivity. High-resolution movement data reveal patterns of site fidelity, dispersal, and long-distance exploratory movements, including cross-border excursions that underscore the species' spatial dynamics. These findings highlight the importance of coordinated, cross-border conservation efforts. The presentation will showcase the importance of the collaboration efforts between the countries in Fennoscandia for conservation planning, monitoring and adaptive management of the Arctic fox.

Preparing for translocation: Understanding ex-situ morphometric change in Extinct in the Wild birds

Oral – Speed (3 mins) - Abstract ID: 208

***Dr. Matthew Mitchell*¹, *Prof. John Ewen*², *Dr. Amanda Trask*², *Dr. Ryan Felice*³**

1. Institute of Zoology, 2. Zoological Society of London, 3. University College London

When planning conservation translocations of ex-situ managed populations into the wild, it is important to understand how their time in captivity may have shaped their biology. Because captive and wild environments differ, ex-situ populations may experience varying susceptibility to evolutionary processes such as genetic drift and inbreeding depression whilst also potentially being subject to adaptation to captivity. All these processes can result in phenotypic change. Here, we examined three Extinct in the Wild or Critically Endangered (Possibly Extinct) species, the sihek (Guam kingfisher), Socorro dove and Vietnam pheasant to study morphometric differences between pre-extirpation wild museum specimens and modern-day individuals in ex-situ populations. We collected linear measurements characterising wing, beak, tarsus and tail morphology and used multi-response mixed models and a non-parametric residual randomisation approach to investigate whether these functional traits have undergone phenotypic change. We find that the wings of modern-day captive individuals are more rounded than those of their pre-extirpation counterparts in the Socorro dove and sihek, with the sihek also exhibiting a shorter tail in captivity. In Socorro doves, we also found that beaks are wider and longer. These results indicate that, compared to historic wild populations, modern-day released individuals may have altered dispersal, foraging and anti-predator abilities when released back into the wild.

Prioritising threatened species for rewilding and conservation breeding using structured decision-making

Oral – Speed (3 mins) - Abstract ID: 153

Mr. Ben Ainslie¹

1. Zoological Society of London

To support species recovery and reverse declines in biodiversity, conservation organisations often implement conservation translocations as a key conservation action. This includes within *in situ* rewilding projects and *ex situ* conservation breeding programmes. To determine which species to prioritise, decision-makers must navigate complex trade-offs and multiple competing objectives (expressions of our values). Utilising robust and transparent prioritisation methods can improve institutional buy-in; however, current approaches are often inefficient or fail to fully recognise the multiple values inherent in conservation decision-making, particularly in the context of conservation translocations where uncertainty and risk are high.

This presentation demonstrates how the application of a structured decision-making (SDM) framework supported two conservation prioritisation processes. The case studies were conducted with Kent Wildlife Trust and the Zoological Society of London, focusing on a rewilding project and a conservation breeding programme, respectively. The SDM approach allowed for the participants' values to be expressed and measured, candidate species to be evaluated against a suite of varied and clearly defined objectives, and ultimately resulted in the prioritisation of threatened species for conservation action.

The findings illustrate how the transparent, logical, and repeatable SDM approach can support conservation organisations in making defensible and value-informed decisions. The work also demonstrates the applicability of SDM at a practical level; a process that can readily adapt to organisational constraints but still offers an effective solution to complex, multi-value species prioritisation problems.

Restoring native seed dispersal services through translocation of the 'ōma'o (*Myadestes obscurus*) to a Hawaiian dry forest landscape

Oral – Speed (3 mins) - Abstract ID: 17

***Ms. Erin Bell*¹, *Dr. Douglass Jacobs*¹, *Mr. Alex Wang*², *Ms. Kylie Hamakawa*²**

1. Purdue University, 2. Hawai'i Division of Forestry and Wildlife

Conservation translocations are increasingly used to recover threatened species, yet their potential to restore lost ecological functions remains less frequently evaluated. In island ecosystems where native frugivores have declined dramatically, translocation may help reestablish seed dispersal processes that support long-term forest regeneration. The 'ōma'o (*Myadestes obscurus*), a Hawaiian thrush, is an important frugivore and seed disperser in wet montane forests but is absent from many leeward forests due to historic habitat loss. Restoring this species to dry forest landscapes may help reestablish seed dispersal processes critical to native plant recruitment.

We evaluated early outcomes of a conservation translocation of 'ōma'o to Pu'uwa'awa'a Forest Reserve on Hawai'i Island, a large dry and mesic forest restoration landscape where native forest structure has been recovering for decades. Between late 2025 and early 2026, individuals were captured from multiple windward populations and translocated to the reserve. Released birds were fitted with very high frequency (VHF) radio transmitters and monitored using post-release telemetry and repeated visual and band-resight surveys to quantify movement, survival, and habitat use.

Post-release monitoring indicates rapid dispersal from release locations, with many individuals moving more than one kilometer and using areas across elevation gradients and habitat types. Birds occupied both interior and edge habitats and were repeatedly observed foraging on native fruiting plants, suggesting early reintegration into restored forest structure and potential resumption of seed dispersal services. These results highlight how targeted avian translocations can complement habitat restoration by rebuilding ecological processes and inform functional restoration efforts in island ecosystems worldwide.

Restoring the wildcat to Wales: An evidence-based approach to feasibility and reintroduction

Oral – Speed (3 mins) - Abstract ID: 137

***Dr. Tom Dando*¹, *Dr. Steve Carter*²**

1. Durrell Wildlife Conservation Trust, 2. Vincent Wildlife Trust

The wildcat (*Felis silvestris*) is one of Britain's most endangered mammals, currently listed as Critically Endangered on the Red List for Britain's Mammals and considered functionally extinct in Scotland. To improve the species' status, recovery across its former range is essential. Recent research (MacPherson, 2019) identified West Wales as containing high proportions of suitable habitat; subsequent analysis (Dando, 2024) demonstrated superior connectivity and fewer potential threats compared to other assessed areas of Western Britain.

Through a partnership between Durrell Wildlife Conservation Trust, Vincent Wildlife Trust, Wildwood Trust, and Cats Protection the Adfer Cathod Coed Cymru project envisions that wildcats will once again be woven into the cultural and physical landscape of Wales. Extensive social feasibility work has involved targeted stakeholder engagement and community workshops. Simultaneously, ecological feasibility is being assessed through comprehensive mix of field monitoring, secondary data and historical records. To support a release, a bespoke captive breeding facility has been constructed, where research-led techniques are being used to produce behaviourally and physically suitable cats for release. Crucially, a TNVR (Trap-Neuter-Vaccinate-Return) strategy led by Cats Protection is being developed to mitigate hybridisation risks.

Current efforts focus on finalising release sites and establishing sociocratic groups with key stakeholder to ensure shared governance and participatory conflict mitigation. If all indicators remain positive, this evidence-based strategy provides a transparent roadmap for reintroducing wildcats to Wales, significantly bolstering the conservation prospects of the species across Britain.

Revise and refine: Adaptive modeling during the establishment of an assurance population

Oral – Speed (3 mins) - Abstract ID: 152

***Mr. Paul Senner*¹, *Dr. Lisa Crampton*², *Mx. Nicole Suckow*², *Dr. Lisa Faust*¹**

1. Lincoln Park Zoo, 2. Kaua'i Forest Bird Recovery Project

In a conservation crisis, how can effective management actions be developed when decisions must be made quickly with limited information? 'Anianiau (*Magnumma parva*) is a honeycreeper endemic to the Hawaiian island of Kaua'i, whose population has declined by >90% in the last 25 years, largely due to avian malaria spread by invasive mosquitoes. Although mosquito control efforts are underway, in 2024 managers initiated an *ex-situ* breeding program as a hedge against extinction. We partnered with the Kaua'i Forest Bird Recovery Project before the first birds were brought into human care to develop a population viability analysis model. However, no *ex-situ* 'Anianiau population had previously been maintained. We present a case study documenting both the establishment of the *ex-situ* population and the parallel effort to build and revise a model to support decision-making. We built an initial model in Vortex based on survivorship and reproduction of other Kaua'i honeycreepers in human care, and iteratively refined the model as the first adults were captured, eggs were collected in the following breeding season, and new life-history data came to light. Our model suggests that reproductive rates well above those observed in other Kaua'i bird breeding programs are required for the population to function as an assurance population, and that additional wild collection events may be necessary to ensure future genetic diversity of the population. Both the founding of this population and the development of this model can stand as a guide for conservation managers making decisions in the face of extinction.

Saving the critically endangered European mink: An overview of 25 years of conservation translocation actions using captive-born individuals in Estonia

Oral – Speed (3 mins) - Abstract ID: 213

***Ms. Kristel Nemvalts*¹, *Dr. Maria Diez Leon*², *Dr. Kairi Kiik*³, *Mr. Gennadi Kotsur*⁴, *Ms. Grete Nummert-Meister*¹, *Ms. Selve Pitsal*⁴, *Mr. Martin Silts*⁴, *Dr. Madis Põdra*⁴, *Dr. Tiit Maran*⁵**

1. Species Conservation Research Centre, Tallinn Zoo, 2. Royal Veterinary College London, 3. University of Tartu and Royal Veterinary College London, 4. Foundation Lutreola, 5. Foundation Lutreola and Estonian University of Life Sciences

The European mink (*Mustela lutreola*), a small semi aquatic carnivore, is critically endangered. Fewer than 5,000 individuals are estimated to remain in severely fragmented populations, further threatened by the mounting pressures of the introduced American mink and habitat destruction, among others. Conservation translocations sourcing captive-born animals are thus critical to the survival of this species in the wild. The first releases started in Estonia over 25 years ago, and the most recent in France one year ago, with Germany and Spain actively releasing individuals for reintroduction, reinforcement or assisted colonization. Here we focus on the Estonian project to showcase results of long-term efforts since the first releases, covering adaptation of captive-bred individuals in the wild to population establishment, trends and conservation management. We provide an overview of the successes and challenges experienced, highlighting the roles of continuous (adaptive) management and research to ensure that conservation translocations sourcing captive-born European mink are a useful component of the toolkit for maintaining this and other species in the wild. The different breeding programs and release operations that are currently underway in Europe should be put into strategic context, within the bigger picture of species conservation. Long-term coordination effort and investment are required to apply the One Plan approach across the continent to ensure the survival of the European mink in the wild.

Social feasibility matters: Insights from a social feasibility study into the reintroduction of European wildcat (*Felis silvestris*) to Kielder Forest, Northumberland

Oral – Speed (3 mins) - Abstract ID: 21

***Mr. Gregory Counsell*¹, *Dr. Michael Dunn*²**

1. Forest Research, 2. Forestry England

Reintroductions can serve as important tools for species recovery, especially in the UK where natural recolonisation by some species is limited by natural and human barriers. Best practice recommends that such interventions progress only following feasibility studies, yet social feasibility remains inconsistently applied, with implications for project legitimacy, outcomes, and impacts, and is often considered secondary to ecological feasibility.

Here we explore the concept of social feasibility and share insights from a study into the feasibility of restoring European wildcat (*Felis silvestris*) to Northumberland. This research involved a stakeholder-mapping process and interviews with key stakeholders, which aimed to gauge support for the project and understand how project management and governance might strengthen support, foster greater buy-in, and mitigate potential barriers. It also included a public survey designed to measure knowledge of and attitudes toward the proposed reintroduction.

Findings showed that residents had relatively low knowledge of wildcats, with fewer than a third able to correctly identify the species, while stakeholders demonstrated a wider but generally intermediate knowledge. Both stakeholders and residents were positive or neutral about a reintroduction, though support was often conditional. Participants sought assurances regarding socio-economic risks, habitat suitability and potential impacts on other species, the welfare and viability of wildcats, and the risks of persecution or hybridisation. There was an emphasis on the need for clear communication and engagement, alongside targeted efforts to improve knowledge and address commonly held concerns.

The study underscores that addressing social feasibility early is essential for developing credible, trusted, and sustainable reintroductions.

Supporting biocultural connections in conservation translocations

Oral – Speed (3 mins) - Abstract ID: 118

***Prof. Priscilla Wehi*¹, *Mr. Finley Ngarangi Johnson*², *Dr. Rachael Shaw*²**

1. University of Otago, 2. Victoria University of Wellington

Translocation is an important tool to safeguard species from decline, but increasingly, conservation management globally raises the interwoven issues of environmental and social justice. In this vein, the relationships of Indigenous peoples with nature are acknowledged as an important concern, yet translocation decision-making globally rarely accounts for relationships of place. We analysed geographical and archival sources related to an endemic parrot, the kākā (*Nestor meridionalis*) in New Zealand, to investigate Indigenous Māori place-based knowledge of kākā ecology and human relationships, and how these might inform decision-making beyond local consultation efforts. Mapping placenames revealed ‘hotspots’ of landscape features bearing Māori names associated with kākā harvesting and ecology. Most street names were modern subdivision assignments, and were not informative of place-based biocultural relationships. Historical print archives (newspapers, magazines, and journals) from 1842-1984 revealed a range of themes related to kākā. Collaboration with local knowledge holders on a subset of place names demonstrated the importance of understanding the context of these names. Together, sources showed that temporal changes in the geographical distribution and recorded observations of kaka ecology could inform translocation decision-making. Partnering with local communities is critical to understanding these relationships. We recommend that translocation guidelines support place-based knowledge and relationships of Indigenous and other local communities. Translocations have the potential to restore species in and of themselves, but also biocultural connections and biodiversity that are fundamental to social and environmental justice.

The promotion of wild animal health, welfare and conservation through the application of health risk analysis to the United Kingdom wildlife rescue, rehabilitation and release sector

Oral – Speed (3 mins) - Abstract ID: 182

***Dr. Dominic Phillips*¹, *Dr. Katie Beckmann*², *Dr. Anthony W Sainsbury*³, *Dr. Sophie Common*⁴**

1. Wildlife Veterinarian and Independent Researcher, 2. The University of Edinburgh, 3. Wild Animal Health, 4. Zoological Society of London

Wildlife translocations in the United Kingdom (UK) are conducted on a huge scale by the wildlife rehabilitation sector (WRS). The hazards and risk to health (animal, human, ecosystem) of this activity, and how those risks are managed, has not been systematically studied. The aims of this study were to explore the case for applying health risk analysis (HRA) methods to the translocation activities of the UK WRS and to identify established candidate methods of HRA that could be best adapted to the rescue, rehabilitation and release process. Two research elements were used to achieve these aims.

An online survey was used to characterise the hazard and risk profile of the wildlife translocation activities of the WRS. Consolidated results of 45 responses from a cross-section of the wildlife rehabilitation community indicated a highly diverse sector conducting wildlife translocations in a complex hazard and risk environment, with inconsistent and often inadequate health management practices.

Using a critical review, methods of HRA from the field of wildlife conservation translocations were surveyed. Six currently in-use methods were selected to be reviewed and critically appraised for application to the WRS. Two flexible scalable methods were identified as having favourable methodological features making them most suitable for this purpose.

The study demonstrates a need for systematic and effective management of the significant hazards and risks to health associated with the translocation of wildlife casualties; the study also identifies the most suitable HRA methods for adaptation and application to the WRS.

The social and ecological support for restoring cougars (*Puma concolor*) to the eastern United States

Oral – Speed (3 mins) - Abstract ID: 223

Ms. Emily Carrollo¹, Dr. Jeremy Bruskotter², Dr. Benjamin Ghasemi³, Dr. John Vucetich⁴, Ms. Rana Bayrakcismith¹, Ms. Sawyer Downey⁵, Mr. Tom Butler⁵, Ms. Vanessa Castle¹, Ms. Shelby Perry⁶, Dr. Mark Elbroch¹, Dr. Axel Moehrenschrager⁷

1. Panthera, 2. Michigan State University, 3. Ohio State University, 4. Michigan Technological University, 5. Tompkins Conservation, 6. Northeast Wilderness Trust, 7. Panthera, and chair of the IUCN Conservation Translocation Specialist Group

The Cougar Research Collaborative (CRC) is a group that was established in 2022 to investigate the possibility of returning cougars to the eastern United States via reintroduction. The group initially began by asking three important questions: 1. Is there suitable habitat in the east to support an isolated population of cougars?; 2. Is there public support for reintroducing cougars?; and 3. Will they return on their own? The final results of these three questions suggest there is habitat in the eastern United States, the public supports cougar reintroduction in multiple states and across diverse groups of stakeholders, and natural recolonization is expected to continue eastward but will be exceptionally slow. Habitat was identified at the landscape scale across the eastern US, and several large habitat patches that could support a genetically isolated cougar population were also identified including 13 habitat patches larger than 10,000 kilometers squared. Public support was measured in seven northeast states, and there was greater support than opposition in each state measured. At the regional scale, there was a 13:1 ratio of strong support to strong opposition, indicating public interest for cougar reintroduction. While natural recolonization will continue eastward, cougars will only reclaim 2.1% of their former eastern range in North America by the year 2100. This talk discusses these results in further detail, and how this research is being used to inform discussions with wildlife agency leadership and encourage collaboration on establishing a reintroduction project moving forward.

Transloc: A collaborative database on conservation translocations implementations and outcomes

Oral – Speed (3 mins) - Abstract ID: 200

Prof. Francois Sarrazin¹, Prof. Bruno Colas², Ms. Isabelle Baly³, Dr. Jean-Baptiste Mihoub¹, Ms. Juliette Birot¹, Ms. Nadline Kjelsberg⁴, Dr. Filipa Coutinho Soares⁵, Dr. Alfredo Garcia⁶, Dr. Carmen Bessa-Gomes², Dr. Fernando Ascensao⁷

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Transloc (<https://translocations.in2p3.fr/>) is an open, collaborative database documenting more than 1820 populations of plants, animals, and lichens, translocated in the Western Palearctic, particularly Europe. It was set up for translocation stakeholders and scientists with the goal of improving conservation projects through knowledge sharing. It includes conservation translocations per se and certain mitigation-driven translocations where population viability is a key objective. On each translocated population data may include information on taxonomy, geography, context, implementation, and population dynamics. The reporting of translocation implementation and demographic progress towards establishment, growth, regulation and viability or failing or failed status is explicit using the standard criteria developed by Birot et al. (2025). FAIR principles are used for the collection, standardisation, conservation and dissemination of translocation data. Any visitor without an account can consult the basic location of translocated populations (on a map), names of translocated taxa and year of first translocation. Most of the other data are publicly accessible with a user account obtained by depositing data or by simple request. Transloc already allowed new results on translocation science (e.g. on taxonomic and phylogenetic biases, Soares et al. 2025; or on connectivity in future scenarios, Ascensao et al. 2025). The development of the Transloc Database was acknowledged by the community of translocation practitioners and stakeholders through several events in presence or online. This opens exciting opportunities to share experience among countries, taxa and practices to improve translocation and their key role for biodiversity conservation and restoration in Europe and worldwide.

Translocation challenges for the Critically Endangered red handfish (*Thymichthys politus*)

Oral – Speed (3 mins) - Abstract ID: 158

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1. University of Tasmania

BUSINESS PLAN

The Critically Endangered red handfish (*Thymichthys politus*), endemic to south-eastern Tasmania, Australia, persists in a single small population (<250 individuals), making it highly vulnerable to environmental impacts including habitat degradation, and climate-driven impacts such as heatwaves. In response, translocation (population reintroduction) has been implemented as a conservation strategy to bolster the wild population and reduce extinction risk, with plans to complement this with population reinforcement and assisted colonisation. This work outlines key challenges associated with the planning and implementation of initial red handfish translocations, including low initial success rates and the need for adaptive refinement of methodologies. Strong site specificity presents a major constraint, with individuals likely dependent on narrow thermal regimes and the availability of suitable habitat. Consequently, identifying, and validating recipient sites remains a critical bottleneck, further constrained by the limited availability of climate-resilient habitats under ongoing environmental change. Biological traits further complicate translocation outcomes. The species exhibits low fecundity, direct development, strong site fidelity, and limiting dispersal capacity, reducing resilience to disturbance and increasing translocation challenges. Genetic management is also essential given the small source population, requiring strategies to minimise inbreeding and maintain diversity. Preliminary outcomes emphasise the importance of integrating habitat restoration with translocation efforts, alongside robust monitoring and adaptive management and future-proofing frameworks. Key ongoing challenges include improving post-release survival, scaling interventions, and addressing uncertainty under rapid environmental change. This work offers broader insights into the application of translocation in marine systems, where such approaches remain comparatively underutilised relative to terrestrial conservation.

Translocation for in situ captive breeding and reinforcement of dama gazelles in Chad

Oral – Speed (3 mins) - Abstract ID: 184

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1. Zoological Society of London, 2. Sahara Conservation, 3. Ministerre de l'Environnement, Chad, 4. Environment Agency of Abu Dhabi, 5. Fossil Rim Wildlife Centre, 6. CVET Wildlife Veterinary Services, 7. Royal Zoological Society of Scotland

Surveys in Chad between 2001-2019 indicated critically endangered dama gazelles (*Nanger dama*) only present in two isolated and difficult to study populations. A western population in the unprotected Manga area near Lake Chad, and a more central one in the Reserve de Faune de Ouadi Rimé-Ouadi Achim (RFOROA), 350km to the east. Neither wild population was believed to exceed 50-60 individuals, with encounter rates in the Manga consistently diminishing. Genetics studies indicated that both wild populations carried more diverse haplotype arrays than all captive stocks combined. The onset of the scimitar-horned oryx reintroduction project, led by the Environment Agency of Abu Dhabi (EAD) at RFOROA, provided infrastructure and increased capacity from 2016. With the Manga dama population moving towards extinction and the RFOROA population better protected but apparently static in growth, a species planning exercise led by the IUCN-SSC Antelope Specialist Group in 2018, endorsed the use of translocation to establish a captive breeding population within existing dama range at the oryx reintroduction facilities. Translocation objectives are to build a diverse founder group, by translocating dama from the Manga to RFOROA, and add dama from captive groups at EAD. Project objectives are to conduct periodic reinforcement releases of satellite-tagged dama by direct release from the *in situ* captives, enabling improved monitoring of survival and reproduction in the RFOROA and hopefully detect increase in population size. This presentation summarises the translocation processes from 2020, reports progress of the captive group's management, and preliminary results of the first releases conducted.

Translocation planning despite limited data: Characterising habitat suitability with expert judgements as prior beliefs

Oral – Speed (3 mins) - Abstract ID: 235

***Dr. Emily Jordan*¹, *Prof. John Ewen*², *Prof. Stefano Canessa*³**

1. Institute of Zoology, 2. Zoological Society of London, 3. Division of Conservation Biology, Institute for Ecology and Evolution

The Critically Endangered Kapitia skink, *Oligosoma salmo*, is a cryptic lizard endemic to Aotearoa New Zealand. The species is one of few skinks to exhibit a fully prehensile tail and has demonstrated remarkable resilience to an extreme weather event, cyclone Fehi. It is currently restricted to c.1ha of exotic grassland and as such conservation translocation will be a key tool in preventing extinction. However, limited ecological data represents a significant barrier to translocation planning.

This study developed a spatial multiple criteria analysis (MCA) informed by expert judgements to map prior beliefs about habitat suitability for Kapitia skinks. Elicitation methods formalised the collective experience of experts in academia, husbandry, and practical conservation. Self-reported confidence and bootstrapping methods enabled quantification of uncertainty. The results are being used to guide experimental translocations and form a platform for iterative learning in an adaptive management framework, improving outcomes for a highly threatened, data-deficient species.

Translocation receiver site selection using the quantitative SWOT process

Oral – Speed (3 mins) - Abstract ID: 57

***Dr. Rachel Chock*¹, *Dr. Debra Shier*¹**

1. San Diego Zoo Wildlife Alliance

Selection of suitable receiver sites is critical to translocation success, yet poor habitat quality at release sites remains one of the most commonly cited causes of failure. We applied a quantitative SWOT (Strengths, Weaknesses, Opportunities, Threats) framework to evaluate and prioritize potential receiver sites for the endangered Pacific pocket mouse (*Perognathus longimembris pacificus*), a heteromyid rodent endemic to coastal southern California, USA. With only three extant populations remaining, a conservation breeding and reintroduction program aims to establish additional wild populations within the species' historic range. Candidate sites were assessed using a structured scoring and weighting system across ecological, logistical, and management criteria, resulting in a ranked set of sites and identification of key factors limiting suitability. This structured, transparent, and collaborative approach facilitated decision-making and highlighted critical knowledge gaps to guide future data collection and site preparation. Based on this experience, we implemented a streamlined version of the framework to support receiver site evaluation for the endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*). Our results demonstrate that quantitative SWOT analysis provides a flexible, repeatable, and proactive tool for site selection and planning. By improving transparency and rigor in decision-making, this approach has the potential to enhance translocation outcomes relative to less structured methods, where inadequate site suitability is frequently implicated in failure to establish persistent wild populations.

Using the Conservation Standards to plan, implement and monitor the outcomes of conservation translocations

Oral – Speed (3 mins) - Abstract ID: 55

Dr. Samantha Bremner-Harrison¹, Mrs. Lucy Buckland²

1. Vincent Wildlife Trust, 2. Durrell Wildlife Conservation Trust

Effective conservation translocations require robust planning, monitoring, review and adaptive management to facilitate success. Strategic processes to help achieve project planning and delivery are customary in other sectors, however, using a clearly defined systematic planning and review process within the conservation sector is less commonplace.

Developed by the Conservation Measures Partnership, the Conservation Standards are an adaptive management framework that bring together common concepts, approaches and terminology for conservation project design, management and assessment, with the aim of being an open-source approach that encourage best practices for conservation work. This 5-step system aims to guide conservationists through assessing the current situation and determining the best courses of action initially through developing theories of change, followed by ongoing monitoring of progress and impact, using adaptive management to adjust approaches where required.

Working in partnership, Vincent Wildlife Trust, Durrell Wildlife Conservation Trust, Wildwood Trust and Cats Protection have assessed the feasibility and planned the reintroduction of European wildcats to Wales. Using the example of our proposed wildcat reintroduction project, we will share how using the Conservation Standards has informed our reintroduction planning, current and future actions, is facilitating the measurement of short and long-term outcomes and will allow us to define our impact on the conservation of our target species.

Wood ant recovery in the nation's forests

Oral – Speed (3 mins) - Abstract ID: 195

***Ms. Katiana Saleiko*¹, *Ms. Hayley Dauben*¹**

1. Forestry England

The restoration of fully functioning ecosystems is essential for effective conservation and is a fundamental goal of Forestry England's Biodiversity Plan. To protect and restore resilient biodiversity in the nation's forests, conservation translocations can play a key role, species important for ecosystem function and are poor dispersers are priority candidates for translocations. Wood ants, both Southern red wood ant (*Formica rufa*) and Northern hairy wood ant (*Formica lugubris*), fulfil both these criteria. These ecosystem engineers, increase environmental heterogeneity and shape the invertebrate, plant and microbial communities in the woodlands they inhabit.

Forestry England commissioned the University of York, James Hutton Institute and Forest Research to determine the known current distribution of wood ants in the nation's forests, and to identify what opportunities there are for ant recovery via models. Overall, models showed almost half (42%) of Forestry England managed land is suitable for wood ants, but only ~15% of Forestry England land is currently occupied, and only 0.2% is naturally colonisable.

Within 2025, two translocation projects were initiated by Forestry England, 1) Cumbria - translocating 12 *Formica lugubris* nests and 2) West Sussex - translocating three *Formica rufa* nests. In 2026, six more nests were translocated to two different sites within West Sussex and Hampshire. We will explain our innovative approach using both whole nest and partial nest translocation methods and the results, as well as sharing several learnings from these projects, including necessary baseline assessments, translocation methodologies, over-winter survival, first year breeding success and continued monitoring.

Plenary talks

PLENARY 1 - Using conservation translocations to restore nature: Meeting the challenge

Plenary - Abstract ID: 239

Dr. Martin Gaywood¹

1. NatureScot

The number of conservation translocation projects has increased dramatically in recent years. At the same time the range of project types and their motivations are widening, along with the types of practitioners wanting to run them. Conservation translocation is certainly no longer just a limited and occasionally used ‘tool of last resort’. In many ways this is to be welcomed, as we attempt to find creative ways to most efficiently and effectively address the ongoing biodiversity crisis.

At the start of the 4th International Conservation Translocation Conference it seems timely to pause and look at some of our experiences from the last few decades, identify some risks and opportunities, and see if there are things we can do to help us get better at using this tool to restore nature.

Challenges for us include the implications of environmental change (for example climate change and inter-related changes in disease risk) in conservation translocation strategy, policy and practice; the silo mentality of species focused conservation versus ecosystem restoration; the risks and opportunities of new synthetic biological tools; how we share trusted information, data and good practice guidance to the wide range of stakeholders that we need to engage with; and the importance of socio-economic and cultural considerations and why we should be including people in project designs.

PLENARY 2 - Integrating wildlife health and welfare into conservation translocation: From global priorities to national policy and practice in Kenya

Plenary - Abstract ID: 143

***Dr. Francesca Vitali*¹, *Dr. Friederike Pohlin*², *Dr. Peter Leimgruber*¹, *Dr. Isaac Lekool*³, *Mr. Cedric Khayale*⁴, *Dr. Axel Moehrenschrager*⁵**

1. Smithsonian Institution, 2. VetMedUni Vienna, 3. Kenya Wildlife Service, 4. Wildlife Research and Training Institute, 5. Panthera

Conservation translocation is an increasingly important tool for species recovery and ecosystem restoration under the Kunming–Montreal Global Biodiversity Framework (GBF). However, integration of wildlife health and welfare across policy, species-specific action, and monitoring remains insufficient. Here, we synthesize outcomes from three interconnected forums - CBD COP16, the IUCN World Conservation Congress 2025, and a multidisciplinary workshop in Kenya - to highlight emerging consensus, challenges, and opportunities for advancing health-centred translocation practice.

At CBD COP16, a side event brought together global stakeholders who emphasized the need for long-term monitoring, One Health approaches, and open data sharing to improve translocation outcomes and support GBF Targets 2–4, while launching a community of practice to support continued engagement at the science–policy–implementation interface. At the IUCN World Conservation Congress, discussions highlighted persistent challenges, including limited post-release monitoring, trade-offs between disease risk mitigation and conservation action, and the need to integrate individual welfare within adaptive management frameworks. In Kenya, a multidisciplinary workshop translated these priorities into a national perspective through training, case studies, and policy dialogue. Participants identified animal health and welfare as fundamental objectives of conservation translocations and informed revisions to Kenya’s Wildlife Conservation Bill, including stronger policy anchoring of translocation guidelines, monitoring frameworks, and One Health considerations.

This work is now informing research strategy development for the Kenya Rhino Range Expansion, providing a model for adaptive management and monitoring frameworks integrating conservation, restoration, and One Health. Together, it advances a more holistic approach to conservation translocation, embedding health, welfare, and multi-objective monitoring into restoration practice.

PLENARY 3 - The restoration of the Iberian lynx

Plenary - Abstract ID: 240

Mr. Rodrigo Serra¹, Ms. Salomé Carreira², Dr. Jesús Fernández³, Dr. José Antonio Godoy⁴, Mr. Rubén González⁵, Ms. Irene Gutiérrez⁶, Ms. María José Pérez⁵, Dr. Íñigo Sánchez⁷, Mr. Antonio Rivas⁸, Dr. Eduardo Roldan⁹, Dr. Astrid Vargas¹⁰

1. National Iberian Lynx Breeding Centre, 2. Centro Nacional de Reprodução de Lince Ibérico, 3. Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, CSIC, 4. Estación Biológica de Doñana, CSIC, 5. Centro de cría del lince ibérico La Olivilla, Junta de Andalucía, 6. Centro de cría del lince ibérico Zarza de Granadilla, OAPN/Tragsatec, 7. Parque Zoológico de Jerez, 8. Centro de cría del lince ibérico El Acebuche, OAPN/Tragsatec, 9. Museo Nacional de Ciencias Naturales, CSIC, 10. Inspiration 4 Action

The Iberian lynx ex-situ conservation program was launched in 2001 in response to the species' Critically Endangered status, with the aim of preventing extinction through the establishment of a healthy, genetically viable captive population as a source for future reintroductions. Following a gradual initial phase, the program expanded rapidly into a coordinated network of breeding centres across Spain and Portugal. Management and research techniques relying on multidisciplinary input were used to reach this goal.

Research on reproductive biology substantially improved breeding management, enabling advances such as species-specific pregnancy diagnosis, while assisted reproductive technologies and biobanking are being developed to enhance genetic management and reproductive performance. The program overcame significant challenges, including disorders likely associated with genetic factors which posed considerable risks. As the breeding population became established, a specialized pre-release training protocol was introduced to promote natural behaviours essential for survival after release.

By 2025, the breeding network had produced 835 cubs from over 460 breeding events, leading to the release of 424 Iberian lynxes. These releases have been instrumental in establishing new free-ranging populations throughout the Iberian Peninsula and contributed decisively to the species' recovery from Critically Endangered to Endangered and, more recently, Vulnerable status.

Future priorities include maintaining adequate population size and genetic diversity while addressing enclosure overcrowding resulting from demographic growth as continued reintroductions remain essential to achieve favourable conservation status. The program must also adapt to emerging challenges, including rehabilitation of injured, orphaned, or conflict-prone wild lynxes, while preserving the fundamental principles underpinning its conservation success.

PLENARY 4 - Determinants of success in plant conservation translocations

Plenary - Abstract ID: 120

Dr. Matthew Albrecht¹

1. Missouri Botanical Garden

Conservation translocations are increasingly used to enhance the demographic and genetic viability of declining plant species. Effective translocation design must account for plant life-history variation and the sedentary nature of individual plants in order to maximize success. Because plants are immobile, factors such as site quality, biotic interactions, and local adaptation may exert a disproportionate influence on translocation outcomes relative to other factors. Here, I synthesize findings from recent meta-analyses and long-term case studies of plant translocations to evaluate the relative importance of factors commonly associated with translocation success. Across studies, site-quality variables consistently emerged as the strongest relative predictors of successful outcomes. For example, translocations established in sites that more closely matched a species' climatic niche exhibited greater population persistence, whereas temporal declines in practitioner-reported habitat quality were associated with reduced persistence. After first-generation translocated plants reach reproductive maturity, next generation seedling recruitment varies widely among species depending on life history and growth form. Recruitment can be delayed by a decade or more in long-lived species and in populations with few reproductive individuals. In addition, environments with higher levels of competition and natural enemies can further reduce seedling establishment and advancement to reproductive maturity. To overcome these barriers, plant translocations should be designed with sufficiently large initial population sizes and proactive management to reduce threats at recipient sites. Through careful design and adherence to established best-practice guidelines, plant conservation translocations can improve the likelihood of achieving long-term population persistence.

PLENARY 5 - The Ocean Gardeners – accelerating marine ecosystem restoration through seagrass translocation

Plenary - Abstract ID: 241

Dr. Richard Lilley¹

1. Rijksuniversiteit Groningen, European Seagrass Restoration Alliance, The Ocean Gardeners

Among the most productive ecosystems on Earth, seagrass meadows underpin coastal economies by supporting fisheries productivity and contributing to the cultural and environmental heritage of coastal communities across Europe. As nature-based solutions, they protect our shorelines from erosion and floods, filter water and capture and store carbon, contributing to climate change mitigation and regulation. Of about seventy-two species worldwide, only four seagrass species are native to European waters: *Posidonia oceanica*, *Cymodocea nodosa*, *Zostera marina* and *Zostera noltii*, and yet these four are biologically diverse. Indeed, in Europe, communicating ‘seagrass restoration’ presents a distinct challenge, because it encompasses very different habitat types under the same umbrella: from long-lived, structurally complex species such as *Posidonia oceanica* meadows to more dynamic and fast-growing systems such as *Zostera* sp. and *Cymodocea nodosa* meadows.

Over the last century, European seagrasses have endured catastrophic declines. Driven by reduced water quality, disease, unsustainable fishing practices, the spread of invasive species, the uncontrolled expansion of recreational activities and rampant coastal development, the majority of our historic meadows have disappeared. Yet, there is hope for the recovery in the remnant seagrass populations still present in most European nations, and in the potential new seagrass habitats that have become available in modified coastal systems. Early attempts to reverse this negative trend were often marked by slow progress and frequent failures, leading many to view seagrass restoration as an insurmountable challenge. That narrative is now changing - signs of recovery have been observed following management interventions, including though restoration by translocation.

PLENARY 6 - Restoring golden eagles to the Southern Uplands of Scotland; the value of stakeholder engagement

Plenary - Abstract ID: 142

Dr. Catherine Barlow ¹

1. Restoring Upland Nature (RUN)

The South of Scotland Golden Eagle Project was established to recover an isolated and fragmented sub population of one of the United Kingdom's most iconic raptors - the golden eagle *Aquila chrysaetos*. Over eight years, the project implemented an adaptive programme of juvenile and, for the first time in the UK, subadult conservation translocations to augment the resident population and enhance demographic resilience. Since initiation, the number of known individuals has increased from six to over fifty, and territorial occupancy has expanded from three isolated pairs to nineteen established home ranges across the region.[AL4]

A key innovation of the project is its integrated stakeholder-engagement approach, designed to address historical tensions surrounding raptor conservation. Through sustained collaboration with land managers, rural industries, community groups, and the general public, the project has developed a shared stewardship model that reframes golden eagles as assets rather than risks to land-use objectives. This inclusive approach has been critical in reducing conflict, and fostering long-term community ownership of conservation outcomes.

THE FINAL PRESENTATION - Escalating effective conservation translocations for a hopeful future

Plenary - Abstract ID: 242

***Dr. Axel Moehrenschrager*¹**

1. Panthera & IUCN SSC Conservation Translocation Specialist Group

Although biodiversity is under increasing threat due to human impacts on all biomes, global human population growth is slowing at an unprecedented rate. If such changes also correspond to slowing impacts on nature, opportunities will abound for conserved species and ecosystems. The Global Biodiversity Framework relies heavily upon threat reduction, and ambitions like protected area creation for 30% of the planet by 2030, are helpful. To battle extinctions within and outside protected areas, increasing species-centred approaches also need to escalate. On the one hand, conservation introductions beyond indigenous range can help to restore ecological functions or to help species escape from extinction drivers in extreme circumstances. On the other hand, reintroductions and reinforcements offer more than threat limitation or mitigation; they help to restore species and ecosystems once again. The mission of the IUCN SSC Conservation Translocation Specialist Group is to empower responsible conservation translocations that save species, strengthen ecosystems, and benefit humanity. Through strategic, inter-linked pillars of Science, Guidance, Policy, Training, Action, and Outreach we aim to create far-reaching, scalable synergies for escalated conservation impact. Ultimately we must drive for increased global action based on, and evaluated through, science. In a changing world, strategic and ethical considerations require increased inter-disciplinarily to tackle challenges and unlock new opportunities that conservation translocations could yield for people and nature. Since these efforts can be difficult to achieve, increasing collaboration and personal support is needed among sectors, countries, genders, and generations. By working together, we can unleash the true potential of conservation translocations to reverse past wrongs, innovate for the future, and create hope for a brighter tomorrow.

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