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WAZA
World Association of Zoos and Aquariums

news

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WAZA Membership as of 4 June 2024

Affiliate:	8
Association:	21
Corporate:	32
Institution:	293
Life:	102
Honorary:	35

Future WAZA Conference

2024: Taronga Zoo, Sydney, Australia, 3–7 November

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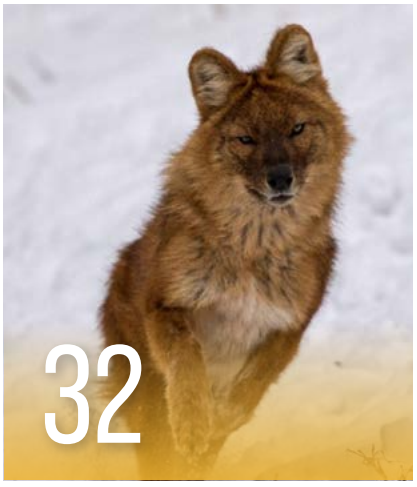


PRESIDENT'S LETTER

Kia ora/Hello members of the World Association of Zoos and Aquariums (WAZA).

As we dive into the second issue of our magazine, I am pleased to share that we are in the process of finalising our programme for the WAZA mid-year conference. This is the first time that we will be organising a fully online conference in addition to our annual in-person conference. This mid-year conference aims to enhance communication between members and will see members joining online from around the world. Through a series of engaging presentations, and panel discussions, our hope is for this event to foster collaboration, share insights and inspire action as we work to achieve our ambitious new strategic priorities and vision.

The 15 May marked the inaugural World Species Congress, a historic gathering aimed at addressing the urgent challenges facing our planet's biodiversity. We saw people from 203 countries and territories joining the online event, 96 satellite events, over 9000 registrations and 12000 social engagements. With themes ranging from climate action to indigenous leadership, this congress represented a pivotal moment in our collective efforts to safeguard our planet's biodiversity. WAZA members have played a crucial role in halting biodiversity decline and this was taken further during the congress with several of our members making species pledges, organising satellite events and sharing their impactful work.

I am also thrilled to extend a warm invitation to each and every one of you to join us at our upcoming annual conference at Taronga Zoo, Sydney from 3 to 7 November. This year, we decided to add a theme for our annual conference, *Zoos and Aquariums 3.0: Transforming Zoos and Aquariums for 2050*. Through this, we want to encourage our global community to think critically about how they envision the future of zoos and aquariums, and how we might need to adapt as we work together towards our shared vision and goals. Our annual conference is a time when our community comes together to share knowledge, inspire action and celebrate our collective achievements in conservation and animal welfare. This year's conference promises to be our most impactful yet, with an array of engaging sessions, dynamic speakers and networking opportunities. Registration is now open and I look forward to seeing you all there!

Ngā mihi/Regards

Karen Fifield MNZM
WAZA President

CEO'S LETTER

Dear WAZA members and friends, It brings me great pleasure to write this letter for the 2nd issue of the 2024 WAZA Magazine. Within these pages, you'll discover articles that delve into diverse initiatives celebrating species conservation, alongside emerging opportunities for amplifying our global impact within and beyond the zoo and aquarium community.

I am thrilled to seize this opportunity to share a glimpse of a recent journey visiting WAZA members in India. Since the 2014 WAZA Annual Conference in New Delhi, no official WAZA visits had been made to India, making this trip particularly significant in the context of our strategic priority, 'Global Membership'.

During the visit, together with our WAZA Head of Communications, we had the privilege of engaging with four of the ten WAZA members in India. Our itinerary included enriching visits to Arignar Anna Zoological Park, Bannerghatta Biopark, New Delhi Zoo, and the Central Zoo Authority. Additionally, while logistical constraints prevented us from physically visiting, we had fruitful video conversations with the directors of Sri Chamarajendra Zoo (Mysore Zoo) and Padmaja Naidu Himalayan Zoological Park.

This experience was truly enlightening for me. While my professional journey within zoos and aquarium associations has provided ample opportunities to connect with institutions across Latin America, North America, Europe, and more recently, New Zealand, I had yet to explore the landscape of WAZA members in India. What I encountered was a community of passionate individuals in the world's most populous country, diligently carrying out work in a context of massive human pressure over wildlife. It was poignant to witness their commitment, especially in caring for animals affected by human-wildlife conflicts, such as leopards, tigers and bears, unable to be released back into the wild due to various reasons including human safety concerns and habitat loss.

I firmly believe that our colleagues in India hold invaluable insights to share, and there is much for us to glean from their experiences. However, I am also cognisant that our current avenues for multidirectional knowledge exchange among members worldwide are somewhat limited.

The ongoing implementation of the 2024-2026 WAZA Strategic Plan seeks to address this challenge, albeit in its initial stages. To truly advance, we need all members and partners to explore broader connections, step beyond our comfort zones, and embrace the enriching lessons that come from immersing ourselves in new intercultural experiences. If you have suggestions on how WAZA can create new opportunities to connect across regions, please share them with the office.

I extend a heartfelt invitation to you all to consider reaching out and potentially visiting a WAZA member in a part of the world you have yet to explore. Even better, venture into countries where the language may be unfamiliar to you. While it may pose challenges, the rewards of such experiences are immeasurable, and assistance with interpretation can readily be arranged.

I take this opportunity to thank all those colleagues in India that welcomed us on our visit from the WAZA office.

Warm regards,

Dr Martín Zordan
WAZA Chief Executive Officer

ZOOS AND AQUARIUMS PLAY A KEY ROLE IN REVERSING THE RED

Megan Joyce, *Communications Officer, Reverse the Red*

Reversing declines and recovering biodiversity is possible. We need to accelerate and amplify successful strategies as we collaborate to increase the collective impact for species.

Reverse the Red is a global coalition dedicated to doing just that; catalysing global strategy and efforts to restore thriving populations and meet Goal A and Target 4 of the **Kunming-Montreal Global Biodiversity Framework**.

Reverse the Red's coalition has three overlapping spheres of partners involved – governmental, storytelling and species impact partners. Through these spheres there is room for everyone to make a meaningful difference using strategic, recovery-focused efforts.

There are clear steps and roadmaps for each key partner to be strategically involved in these large-scale, coordinated, coalition efforts to meet the targets.

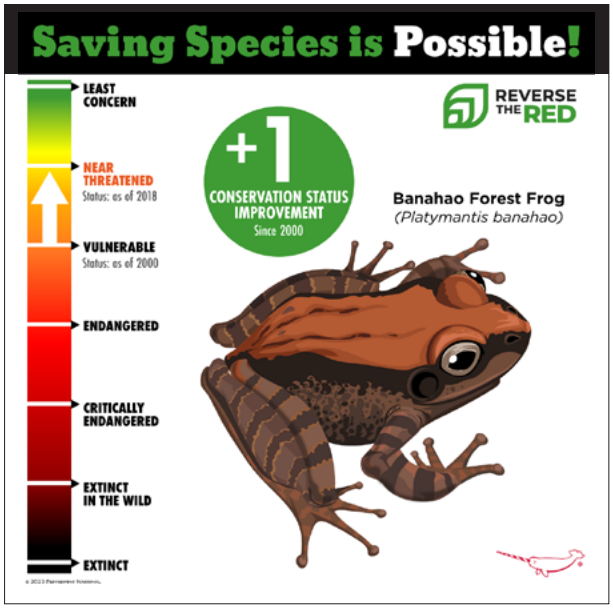
Government partners are recognising the value in restoring and maintaining thriving biodiversity and updating National Biodiversity Strategy and Action Plans, including strategically developed species efforts, funding and implementation of plans aligned with clear Convention on Biological Diversity targets and indicators.

Storytelling partners, including film studios, journalists, educators and zoos and aquariums, can increase the awareness of strategic efforts for conservation and also drive public belief that we can reverse biodiversity declines. This can be done through publicity campaigns, behaviour change efforts and education, to drive public advocacy for national and corporate support and investment in species efforts.

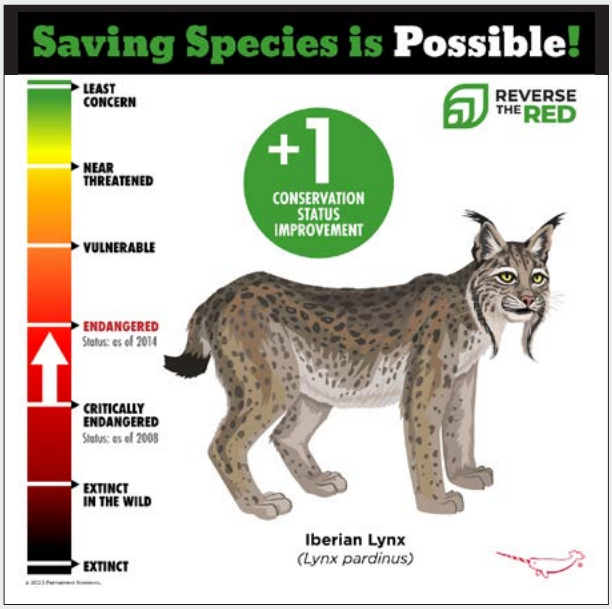
Campbell's alligator lizard ***(Abronia campbelli)*** *© Oklahoma City Zoo and Botanical Garden*

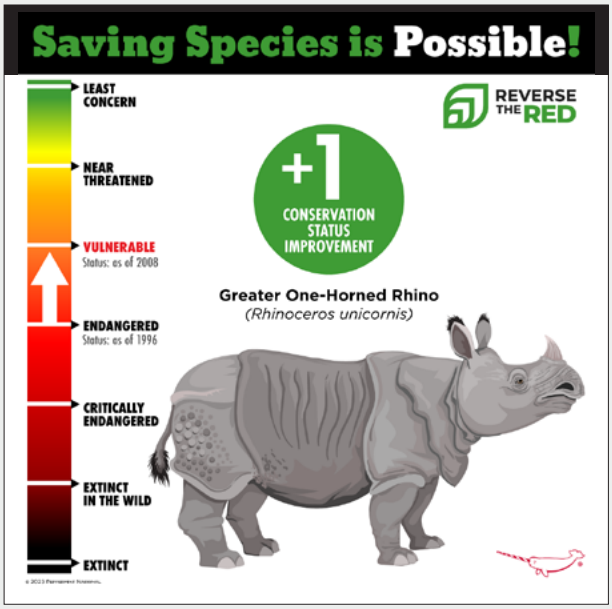
Species impact partners include non-governmental organisations, botanic gardens, zoos and aquariums, community partnerships, governments and more. These groups and organisations can support the Reverse the Red outcomes by ensuring that all conservation initiatives have impact-focused, measurable indicators, which align with their respective national biodiversity plans and Convention on Biological Diversity (CBD) indicators. Partners can highlight and invest in projects that collaborate with in-country representatives to address threats and reverse the decline of threatened species.

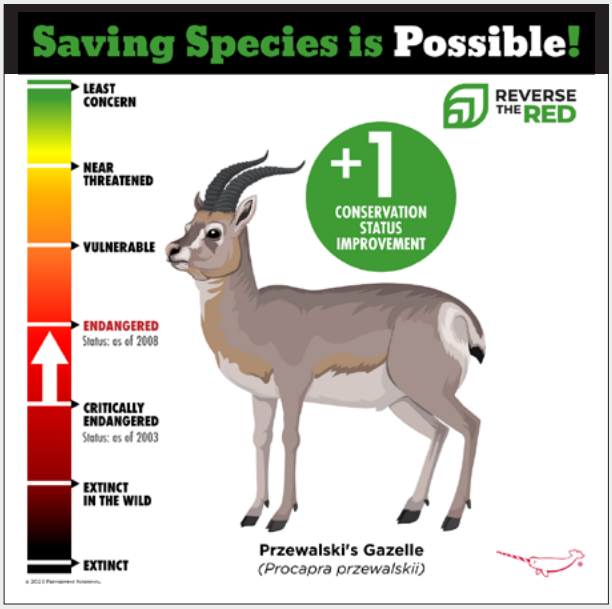
Zoo and aquarium species impact partners hold a pivotal role as species impact partners in the crossroads of *ex situ* and *in situ* conservation efforts. Aligning with the Global Species Action Plan actions from 4.1 to 4.7, contributions span a spectrum of activities, including applied genetic, behavioural and veterinary science, wildlife reintroduction and translocation, research, education, community engagement, policy development and fostering access to nature-based experiences, which is the reason why the International Union for Conservation of Nature (IUCN) Species Survival Commission issued its position statement on the role of botanic gardens, aquariums and zoos in species conservation.



Spiny softshell turtle *(Apalone spinifera)* © *ZoodeGranby*





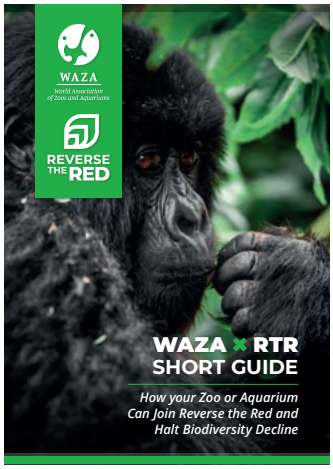


Reverse the Red's unique niche is the intersection of partners and rapid incubation of strategy and action, and WAZA members have a key role to play, working with partners around the world as essential members of this global coalition. WAZA members can partner, support and lead strategic species recovery efforts. They can also advocate for investment and prioritisation of species conservation at state levels.

Building off the World Species Congress, zoos and aquariums can continue to increase participation in the Reverse the Red campaign by:

- Making an organisational commitment to save specific species through the Reverse the Red Species Pledge. The goal of the Species Pledge is to accelerate impact towards species recovery by mapping key strategic actions and facilitating collaboration.
- Telling stories of positive conservation impact to visitors, partners, governments and through storytelling networks. Increasing the stories of success will help to create advocates for further action.

Find more examples of zoos and aquariums who are reversing the red in the WAZA × RtR Short Guide and thank you to everyone for participating in and presenting at the World Species Congress. We hope that the momentum for this movement to Reverse the Red continues to grow throughout the second half of 2024.



CAMPAIGNS WITH PURPOSE – MPA DAY AND AFRICAN PENGUIN NOTONOURWATCH

Judy Mann Lang, *Executive Strategic Projects, Two Oceans Aquarium*

WAZA member aquariums in South Africa recently expanded their reach with the launch of two marine conservation campaigns. Both these campaigns started small but have since become international. This article shows how, with very limited budgets, they were able to galvanise the support of the international conservation community.

Marine Protected Areas Day – South African Association for Marine Biological Research (SAAMBR) – uShaka Sea World

Marine Protected Areas (MPAs), legally protected parts of the ocean, are critical for the conservation of valuable marine biodiversity, and play an equally important role in supporting people – both socially and economically. However, most people in South Africa have never heard of MPAs and thus their value is not appreciated by decision makers or the general public. In fact, research undertaken at uShaka Sea World revealed that less than 20% of visitors to the aquarium in Durban could name one MPA in South Africa. At SAAMBR we are privileged to have an active team of scientists involved in Marine Protected Area research. Our research division – the Oceanographic Research Institute, has been instrumental in the proclamation of several of South Africa's MPAs. With our solid scientific foundation, it was natural that we would become involved in communicating the value of MPAs.

But how could we build support for a concept that very few people knew about and even fewer cared about? Given the fact that we had no budget, we needed to work out how we could raise awareness of MPAs amongst the public, in a cost effective and impactful manner. Awareness days are very popular, and they are used by environmental organisations around the world to highlight selected issues. Amongst the WAZA community we celebrate many special days – Reverse the Red Day, World Environment Day, Endangered Species Day, World Ocean Day, to mention just a few. So, we decided to launch the world's first Marine Protected Areas Day on 1 August 2021.

Our goals were modest – generate an awareness of MPAs amongst South Africans, build an understanding of the importance of these special places for both people and nature, and encourage support for MPAs. The first step was the most important – finding a team of people passionate about the ocean and MPAs, with a diversity of skills to make the day a reality. The MPA Day Alliance included uShaka Sea World, Two Oceans Aquarium, two communication experts and two conservation organisations. With absolutely no budget, this tiny team has managed to create a day that has grown and was celebrated in over 10 countries in 2023!

African Penguins *(Spheniscus demersus)* © *Steve Benjamin*

2021 MPA Day © *The Two Oceans Aquarium*

What did we do? Galvanising an effective media campaign is critical. Traditional media is vital with online, print, radio and TV slots during the build-up to each MPA Day. Social media includes regular posting on Facebook, Twitter, Instagram, TikTok and LinkedIn accounts, the MPA Day website MPA Day South Africa, and the generation of informative fact sheets and maps for educators and others.

Activities on MPA Day have included virtual visits to MPAs, with live crossings, exhibits in uShaka Sea World and Two Oceans Aquarium, beach clean-ups, MPA hikes, paddle outs, special displays in MPAs themselves, a photographic competition, a magical Kelp Night in the Two Oceans Aquarium, a special MPA film, many school activities and much more. The success of the campaign has been celebrated through multiple media and communication awards that it has received, including a prestigious Shorty Award.

While the growth of MPA Day is impressive that is not what makes it so special. The magic ingredient for the success of this day was the energy of everyone who was asked to help. Everyone participated with great enthusiasm. We exceeded our goals in the first three years and MPA Day is now on course to become celebrated as an annual global awareness day in support of sustaining our life-giving, but delicate MPAs. In 2024 we hope to work with the WAZA Aquarium community and Dr Sylvia Earle's Mission Blue to create a truly global campaign – that puts people at the heart of our MPAs.

African Penguin NotOnOurWatch #NOOW Campaign – Two Oceans Aquarium and Foundation

On 1 March 2023, the African Penguin Not-On-Our-Watch #NOOW Campaign was launched to raise awareness of the urgent plight of the African penguin, the population of which is decreasing. The campaign is led by the Two Oceans Aquarium and Foundation and supported by SAAMBR (uShaka Sea World), the Florida Aquarium, the Georgia Aquarium, Zoos Victoria and Ripley's Aquarium of the Smokies.

Starting with social media and the website #NOOW/NotOnOurWatch, the campaign encourages people to learn more about the plight of African Penguins and to send letters to the South African Minister of the Environment, requesting her support for penguin conservation. The next step was to raise worldwide support for a Penguin Waddle on International African Penguin Day in October 2023. Attendees (or Waddlers) demonstarted their support by wearing black and white clothing and carrying signs that reflected the #NOOW hashtag and slogans.

This is where the amazing WAZA network came to life. The team at the Florida Aquarium were incredibly supportive, hosting regular meetings which kept us all on track. Together with Georgia Aquarium and representatives of the African Penguin SAFE programme, support from the US was very good. The Japanese zoo community was also supportive, as African Penguins are very popular in Japan. In fact, the list of organisations

that supported the campaign included nearly 40 zoos and aquariums worldwide. This shows the collective power of a campaign to galvanise action around the world.

Despite the short lead time, the campaign managed to pull off a truly worldwide waddle. Waddles took place on seven continents, involving at least 15 countries including Tasmania, Australia, New Zealand, Japan, Abu Dhabi in the UAE, Mozambique, South Africa, Poland, Croatia, Italy, France, Canada, the U.S., Chile and Peru. These involved more than 100 organisations and thousands of people. As an awareness-raising campaign, it definitely succeeded. To this day, almost 1 000 emails have been sent to the Minister, creating a constant reminder that people are watching her decisisions.

Apart from the waddles, there were numerous articles in the media, interviews, public service advertising across a range of media, extensive social media reach, school activities, educational talks and the waddle itself was endorsed by the United Nations Ocean Decade. Our two youth ambassadors, Sophumelela Qoma and Keira King, attracted significant media attention and helped #NOOW to appeal to a younger and more diverse audience. The Florida Aquarium deserves special mention as they secured broadcast and online coverage with an estimated reach of 13.3 million with an advertising value equivalency of $123,000. They were also amazingly supportive throughout the campaign, with their creative ideas and professional execution.

The Two Oceans Aquarium opened a dedicated exhibit on 25 April 2024, World Penguin Day, to highlight the threats, both past and present, African penguins face and to give visitors insight into their lifestyles and biology. The exhibit includes interactive elements for children so that they can also discover the unique world of penguins.

Behind the scenes the Foundation is working with the South African Department of Forestry, Fisheries and the Environment to create a practical and implementable national management plan for the species and to facilitate enhanced coordination of conservation actions.

In its first year #NOOW achieved a lot with a small budget. We look forward to achieving even more in 2024 through the extensive network of partners that has been established. The momentum is real, and the penguins urgently need our help.

Summary

Through campaigns such as those highlighted in this article, zoos and aquariums can directly contribute to global challenges. The #NOOW campaign links to the Kunming-Montreal Global Biodiversity Framework (GBF) as it connects the efforts of zoos and aquariums with the national implementation of action plans. This campaign also aligns closely with the Reverse the Red movement championed by WAZA and the IUCN. The MPA Day campaign contributes to Sustainable Development Goal 14: Life Below Water, in particular the 30×30 movement to protect 30% of the planet's land and ocean by 2030.

While individually each WAZA member has considerable power to contribute to global conservation, collectively our power is enormous, as these two campaigns have shown. Future challenges include assessing the reach and impact of such campaigns, and their influence on national and international conservation action.

2021 MPA Day Webinar SAAMBR © *Ann Kunz*

MPA Day Celebration © *The Two Oceans Aquarium*

TARONGA CONSERVATION SOCIETY AUSTRALIA AND ITS PARTNERS DEVELOP REAL-TIME FORENSIC TOOLS TO DISMANTLE THE ILLEGAL WILDLIFE TRADE

Dr Phoebe Meagher, *Wildlife Conservation Officer, Taronga Conservation Society Australia*
Dr Justine O'Brien, *Manager, Conservation Science, Taronga Conservation Society Australia*
Abbey Whitelock, *Research and Conservation Officer, Taronga Conservation Society Australia*

The overexploitation of wildlife is the second greatest threat to global species loss after habitat destruction. The illegal wildlife trade is a major source of wildlife overexploitation and is one of the largest criminal markets in the world. The movement of trafficked animals has huge costs on their health and welfare, but also poses considerable threat to biodiversity and wildlife conservation. Despite this, the global billion-dollar industry lacks regulation and robust forensic methodology for detecting and monitoring criminal activity.

One of the greatest problems in dismantling the illegal wildlife trade is the inability to determine the origin of trafficked animals. Determining their origin could also inform decision-making around whether repatriation for laundered wildlife is possible. Until recently, there has been no scientific tool available to test whether seized animals have been raised in captivity or taken from the wild. Past methods have relied on vague descriptions of colours and other subjective indexes. In 2016, the forensic science team WildENFORCE, comprising of scientists from Taronga Conservation Society Australia, the University of New South Wales, the University of Technology Sydney and the Australian Nuclear Science and Technology Organisation, began developing an exciting, novel method that uses stored elemental signatures in keratinous tissues such as fur, quills and scales to identify the origin of the animal.

The team focussed on the short-beaked echidna, a species often presented to enforcement agencies with falsified documentation based on investigations by the global NGO TRAFFIC. It was hypothesised that animals foraging in the wild would have permanent signatures which reflect the diversity of naturally available prey items, whereas animals raised in managed settings would have a signature that reflects a commercial feed or less diverse diet. By using a combination of stable isotope analysis, nuclear X-ray fluorescence (XRF) and machine learning models, the forensic team were able to determine the wild or captive origin of echidnas with over 90% accuracy (Brandis *et al*. 2018).

Bumpy the Shingleback Lizard (*Tiliqua rugosa*)

The lab-based desktop equipment used to assign origin in echidnas has now been made mobile by Taronga and its partners. The same technology has been applied to a hand-held portable XRF (pXRF) device typically used in the mining industry to detect elements in the soil. The device shoots a focal X-ray beam at the surface of an animal's keratin which reveal the 42 different elements within the keratin that make up a unique elemental signature.

It wasn't long before Australian federal authorities heard about this work and approached Taronga to partner with them to combat the illegal trade of Australia's most trafficked species: shingleback and blue tongue lizards. Taronga's unique combination of skills encompassing the XRF technology alongside specialist reptile keepers and veterinary staff makes them well-positioned to be able to detect, treat and trace smuggled animals. Using the pXRF device, a data reference library was created by scanning over 300 shingleback and blue tongue lizards from seven zoos and four wild locations. By building a database of samples from zoo-based and wild lizards, the pXRF device can now use species-specific models to confirm whether an animal has come from a wild or captive environment with about 75% accuracy. This gives the Australian federal government and other authorities an evidence-based tool to determine whether detected animals are being traded legally (captive-bred with legal documentation) or illegally (wild-caught animals, either smuggled or with falsified documentation).

Demand for provenance determination using pXRF technology has grown exponentially in response to new and powerful detection technologies at mail centres and airports. In partnership with Rapiscan Systems, the company responsible for the development of Real Time Tomography (RTT) technology, Taronga has assisted in the development of 3D image detection algorithms to screen packages and detect concealed wildlife (Pirotta *et al*. 2022). Detection accuracy is greater than 80% and can provide crucial information including species and number of specimens.

300+

SHINGLEBACK AND BLUE TONGUE LIZARDS SCANNED

7

ZOOS

4

WILD LOCATIONS

Taronga's Dr Justine O'Brien, Dr Phoebe Meagher, Federal Environment Minister Tanya Plibersek and Rapiscan's Dr Vanessa Pirotta © *Taronga Conservation Society Australia*

Fed Environment Minister Tanya Plibersek, Taronga Keeper Suzie MacNamara © *Taronga Conservation Society Australia*

Dr Phoebe Meagher, NSW Environment Minister Penny Sharpe, Fed Environment Minister Tanya Plibersek, Taronga Keeper Suzie MacNamara © *Taronga Conservation Society Australia*

When a suspicious package has been identified and scanned at the Sydney Gateway postal facility, the Australian federal authorities call Taronga. Upon arrival at Taronga Zoo, the sealed packages are unboxed with representatives from the Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW) and Taronga, including members of Taronga's science, veterinary and reptile keeping teams. Once opened, health checks are conducted on the trafficked animals and evidence is collected for legal proceedings. Animals may be concealed within anything, from stuffed animals to chocolate boxes.

Taronga's first priority is to ensure that the animals are in a good welfare state. In some cases, animals have been seen with broken limbs, dehydration and respiratory viruses. In other cases, particularly if they have been bred in illegal backyard breeding facilities, animals can be found in a better state. Taronga has the capacity to care for up to 20 trafficked lizards until they are deemed suitable for rehoming. Taronga staff also determine the provenance of these animals using the pXRF device to measure the elements in their keratin or skin. This information is then provided to DCCEEW to confirm where the animal has come from.

Since August 2023, Taronga has provided support for managing a constant stream of confiscated parcels. In the past four months alone, Taronga has treated and cared for over 100 different reptiles. Currently, Taronga's forensic team continues to collaborate on expanding Rapiscan 3D image detection algorithms and refining XRF technology for its application to other animals impacted by the illegal wildlife trade, including aquatic and marine species. A disease risk assessment is currently in planning so that challenges presented by quarantining seized animals can be overcome, which will assist with decision-making for potential repatriation. Taronga is also investigating the relationship between environmental elements and keratin to see whether this can increase the impact and efficiency of their work by reducing the need for reference animals.

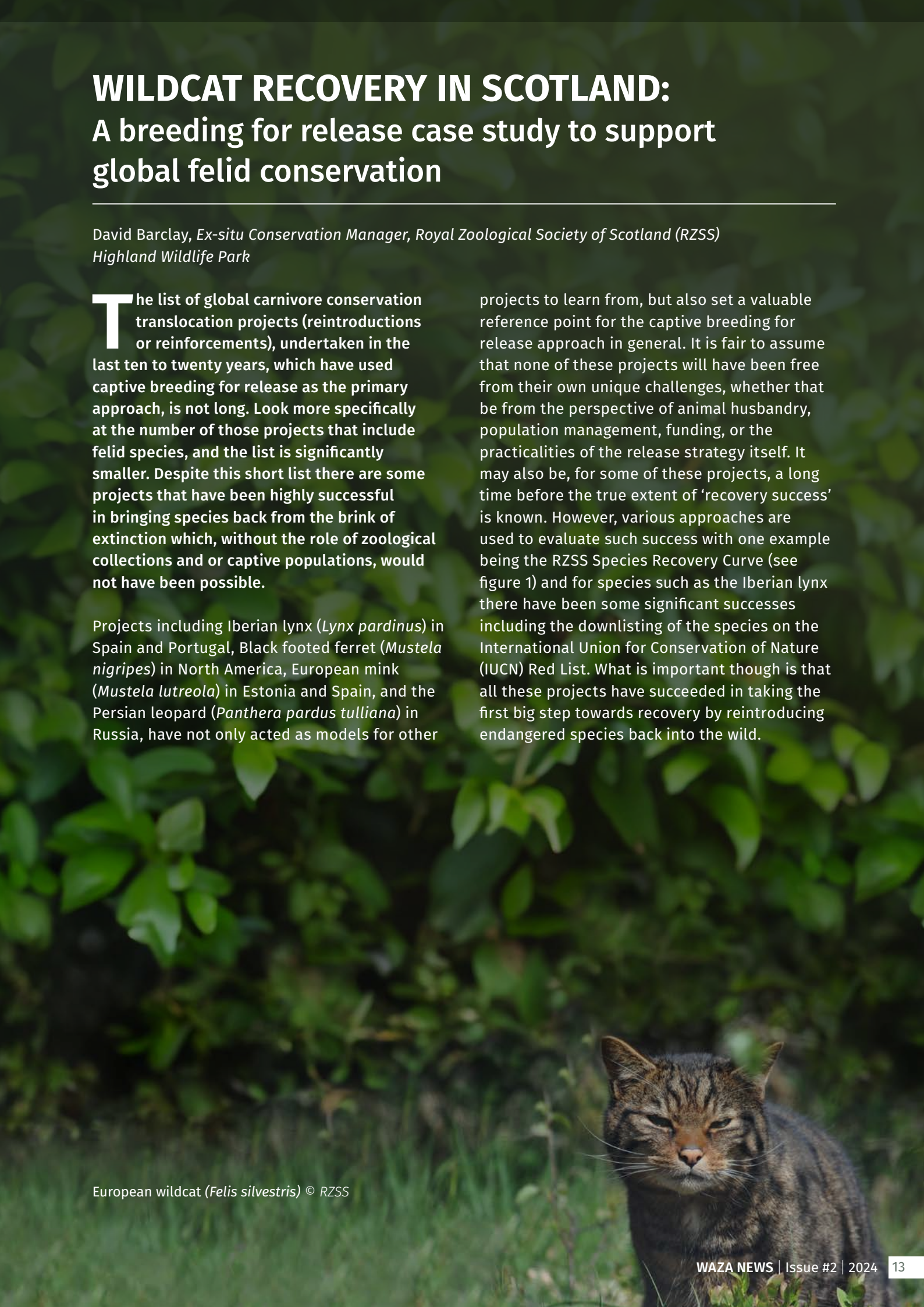
Since 2016, this research has been supported by grants and in-kind support from Taronga Conservation Society Australia, Taronga Foundation philanthropists, the University of New South Wales, DCCEEW and Rapiscan Systems Ltd.

WILDCAT RECOVERY IN SCOTLAND:
A breeding for release case study to support global felid conservation

David Barclay, *Ex-situ Conservation Manager, Royal Zoological Society of Scotland (RZSS) Highland Wildlife Park*

The list of global carnivore conservation translocation projects (reintroductions or reinforcements), undertaken in the last ten to twenty years, which have used captive breeding for release as the primary approach, is not long. Look more specifically at the number of those projects that include felid species, and the list is significantly smaller. Despite this short list there are some projects that have been highly successful in bringing species back from the brink of extinction which, without the role of zoological collections and or captive populations, would not have been possible.

Projects including Iberian lynx (*Lynx pardinus*) in Spain and Portugal, Black footed ferret (*Mustela nigripes*) in North America, European mink (*Mustela lutreola*) in Estonia and Spain, and the Persian leopard (*Panthera pardus tulliana*) in Russia, have not only acted as models for other projects to learn from, but also set a valuable reference point for the captive breeding for release approach in general. It is fair to assume that none of these projects will have been free from their own unique challenges, whether that be from the perspective of animal husbandry, population management, funding, or the practicalities of the release strategy itself. It may also be, for some of these projects, a long time before the true extent of 'recovery success' is known. However, various approaches are used to evaluate such success with one example being the RZSS Species Recovery Curve (see figure 1) and for species such as the Iberian lynx there have been some significant successes including the downlisting of the species on the International Union for Conservation of Nature (IUCN) Red List. What is important though is that all these projects have succeeded in taking the first big step towards recovery by reintroducing endangered species back into the wild.



European wildcat *(Felis silvestris)* © *RZSS*

With regards to the global spread of such translocation projects, it could be argued that one notable absentee on the list is the UK. A small country, by global standards, but one that has suffered several historical large carnivore extinctions (e.g. wolves, lynx) and where numerous extant carnivore populations suffer from a high level of threat. Whilst it is unlikely that all the lost species of the UK can or even should be brought back, it's clear that more efforts are needed to conserve, and where necessary, recover key species. One species where these efforts are regarded as critical, at least from the perspective of the conservation and zoo community, is the European wildcat (*Felis silvestris*). Once found across the entire country, the wildcat is now restricted to the Highlands of Scotland where its population teeters on the brink of extinction. As one of the largest and most endangered terrestrial mammals left in the UK, the species highlights the critical need for effective long-term conservation action.

The Royal Zoological Society of Scotland (RZSS) has been a key partner in wildcat conservation efforts for over a decade. During this short period of time the conservation needs for the species have, however, changed significantly. From a point just five years ago where it was hoped that *in situ* conservation efforts alone may be enough to save the species, to now where the wildcat will likely be next to join the list of extinct species in the UK unless there is species reinforcement or reintroductions. As detailed in the IUCN Cat Specialist Group status report of wildcats in Scotland (Breitenmoser *et al*, 2019), the status of the species was described as non-viable and critically endangered. With a wild population fragmented across the Highlands of Scotland with fewer than 100 individuals (if any at all), the conservation needs for the species are urgent to say the least.

Thankfully, in 2018 there was a significant development in the conservation planning for the species when RZSS were successful in securing an EU LIFE grant from the European Union. This funding kickstarted a new phase of wildcat conservation action through a new project, Saving Wildcats, dedicated to the recovery of the species through captive breeding and release. Led by RZSS, Saving Wildcats partners with national government agencies (NatureScot, Forestry & Land Scotland, Cairngorms National

European wildcat *(Felis silvestris)* © *RZSS*

Park Authority) alongside Consejería de Sostenibilidad, Medio Ambiente y Economía Azul de la Junta de Andalucía, who have led the EU LIFE recovery project for Iberian lynx and Nordens Ark, a Swedish conservation zoo (and WAZA member) committed to native species recovery.

Launched in 2019 the project has already passed many key milestones including the construction of a dedicated conservation breeding for release centre at RZSS's Highland Wildlife Park, situated in the Cairngorms National Park in the Scottish Highlands. Following the first year of successful breeding (2022) and a targeted 'hands off' pre-release management phase, the project saw the first ever release of wildcats in the UK in the summer of 2023. As of April 2024, ten months after the first releases were carried out, 18 of the 19 released wildcats are still considered to be alive. With a potential 95% survival rate, high site fidelity, a second year of successful breeding and an extensive post-release monitoring programme, the results to date seem promising.

With the 'source' of wildcats for release coming from the UK's conservation breeding programme, it goes without saying that the successes to date would not have been achievable without a long-term commitment to effective population management and *ex situ* husbandry. However, it is important to note that the status of the captive population was not, until recent years, at a level that could support conservation recovery. Whilst multiple activities were carried out between 2015 and 2018 (improved best practice guidance, improved breeding success, increase in holders, addition of new founders) there were two stand out actions that contributed significantly to improved population management: a hybrid assessment of the entire breeding population and a full molecular reconstruction of the pedigree.

These actions not only meant that individuals with a high degree of hybridisation, one of the key threats to the species (see "Distinguishing the victim from the threat", Senn *et al*, 2019), could be removed, thus breeding only high-quality cats, but also provided a clearer picture on the population statistics, allowing for more effective breeding recommendations. The net result of all this work was a larger, more sustainable, population increasing from 64 individuals (2015) to 120 individuals (2019) that could now contribute to conservation recovery as a source population. The ability to utilise the captive population as a source for wildcat recovery combined with the knowledge and lessons learnt from other carnivore breeding for release projects has been critical for Saving Wildcats. The work to date from Saving Wildcats not only highlights the valuable role that global zoological collections can play in species conservation but also the importance of sharing experiences and collaboration.

Although this is a relatively small project being carried out in a remote part of the Scottish Highlands, the hope is that the lessons learned from the Saving Wildcats project will help to inform similar conservation projects across the WAZA and conservation community, contributing to the global effort in protecting threatened species.

For further information about the work of Saving Wildcats, please visit the partnership's website, savingwildcats.org.uk.

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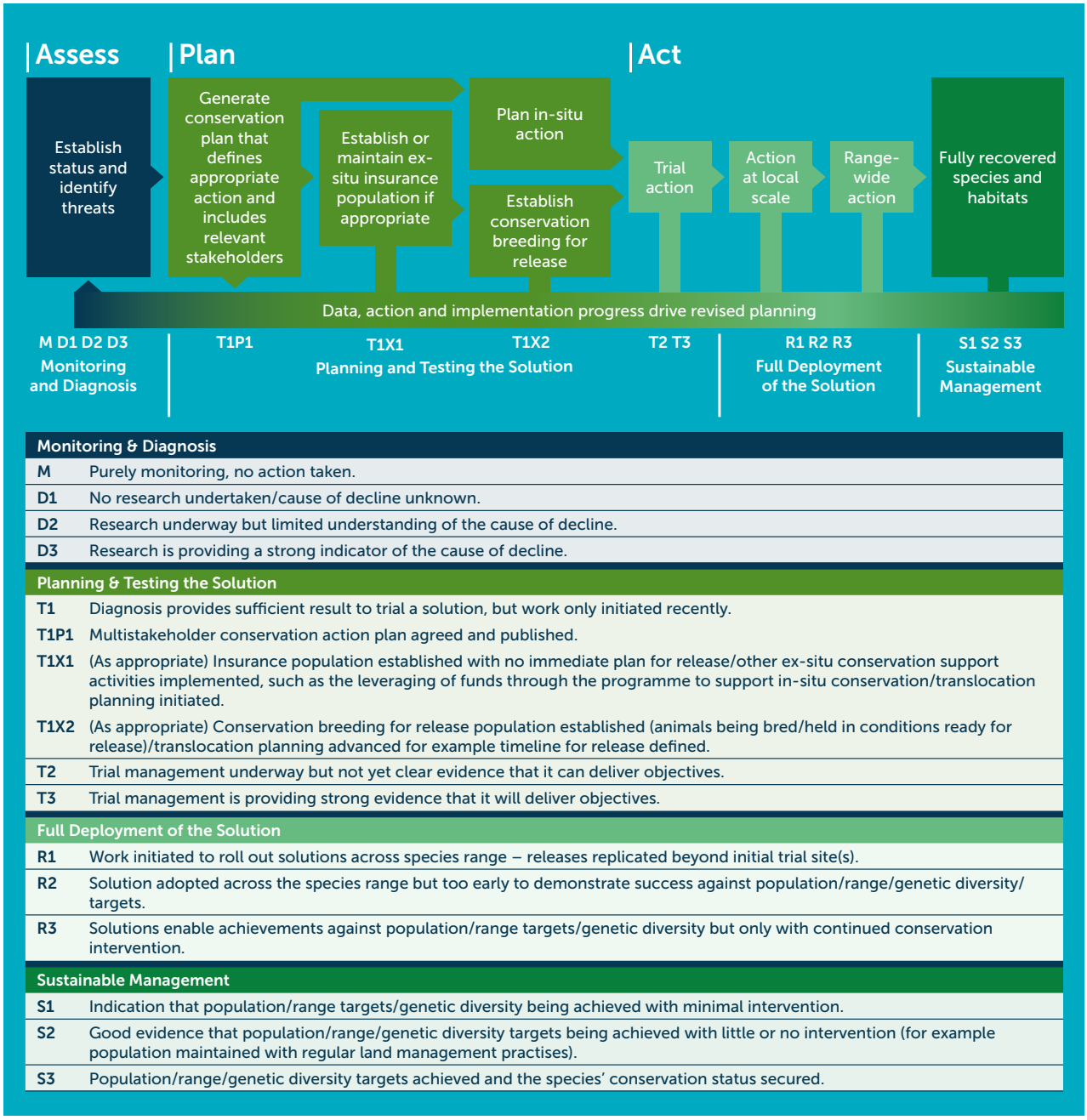

Monitoring & Diagnosis	
M	Purely monitoring, no action taken.
D1	No research undertaken/cause of decline unknown.
D2	Research underway but limited understanding of the cause of decline.
D3	Research is providing a strong indicator of the cause of decline.
Planning & Testing the Solution	
T1	Diagnosis provides sufficient result to trial a solution, but work only initiated recently.
T1P1	Multistakeholder conservation action plan agreed and published.
T1X1	(As appropriate) Insurance population established with no immediate plan for release/other ex-situ conservation support activities implemented, such as the leveraging of funds through the programme to support in-situ conservation/translocation planning initiated.
T1X2	(As appropriate) Conservation breeding for release population established (animals being bred/held in conditions ready for release)/translocation planning advanced for example timeline for release defined.
T2	Trial management underway but not yet clear evidence that it can deliver objectives.
T3	Trial management is providing strong evidence that it will deliver objectives.
Full Deployment of the Solution	
R1	Work initiated to roll out solutions across species range – releases replicated beyond initial trial site(s).
R2	Solution adopted across the species range but too early to demonstrate success against population/range/genetic diversity/ targets.
R3	Solutions enable achievements against population/range targets/genetic diversity but only with continued conservation intervention.
Sustainable Management	
S1	Indication that population/range targets/genetic diversity being achieved with minimal intervention.
S2	Good evidence that population/range/genetic diversity targets being achieved with little or no intervention (for example population maintained with regular land management practises).
S3	Population/range/genetic diversity targets achieved and the species' conservation status secured.

FIGURE 1: *RZSS Species Recovery Curve*

Conservation Breeding for Release Centre at the Royal Zoological Society of Scotland's Highland Wildlife Park © *RZSS*

CELEBRATING 20 YEARS AND THE LEGACY OF THE INDIANAPOLIS PRIZE

Honouring Wildlife Champions and Inspiring Global Conservation Efforts

Alliy Moyer, *Conservation Public Relations Specialist, Indianapolis Zoo*

The Indianapolis Prize was created in 2004 as a conservation initiative of The Indianapolis Zoological Society with the goal of recognising animal conservation in a new way. The Prize was designed to combine a monetary award large enough to have a serious impact on a field conservationist with a series of events that would inspire and educate the public about conservation heroes. Now, in its twentieth year, the Prize has awarded over $6.2 million and reached more than 2 billion people globally.

The Prize strives to bring attention to the inspiring work of leading animal conservationists who create successful and replicable conservation methods thus ensuring a sustainable world. It has been awarded to nine of the world's most renowned animal conservationists working with a wide variety of species. From seahorses to lemurs to African elephants and everything in between, the winners of the Indianapolis Prize have worked in every climate and on every continent on Earth. Today, they continue to be guardians of the wilderness at the forefront of important conservation victories.

Chief Scientist Emeritus of Polar Bears International and 2012 Winner Dr Steven Amstrup's most recently published paper in the fall of 2023 shows the impact of greenhouse gas emissions on sea ice loss and polar bear survival. This groundbreaking paper is a major step in removing roadblocks that have prevented further action since the polar bear was named a threatened species under the U.S. Endangered Species Act in 2008. The 2023 Winner Dr Pablo Borboroglu continues to be a voice for penguin species around the world.

Award Presentation of 2023 Winner Dr. Pablo Borboroglu © *Indianapolis Zoo/Chris Bergin*

Emerging Conservationist Award Winner Fanny Cornejo © *Indianapolis Zoo*

2021 Winner Amanda Vincent © *Indianapolis Zoo*

Borboroglu and his team have embraced the latest conservation technological advancements, such as remote sensing, allowing them to monitor and manage ecosystems on a larger scale. He has utilised renewable energy and waste management technologies to mitigate pollution and reduce carbon emissions contributing to climate change. These new technologies give conservationists the power to analyse mass amounts of data, and identify patterns to predict ecological trends.

On the other side of the world, Dr Iain Douglas-Hamilton, the 2010 winner, assisted in researching the opportunities of artificial intelligence (AI) and machine learning to enhance the understanding of animal behaviour and conservation strategies. Douglas-Hamilton's organisation, Save the Elephants, harnesses the power of drones and AI to monitor elephants and extract vital information that might be otherwise overlooked.

To continue the support of conservation leadership in action, the Indianapolis Prize created an award in 2023 for early career scientists. The Emerging Conservationist Award is given to a conservationist under the age of 40 with the talent and determination to make an impact in saving a species or group of species. The award is meant to recognise a next generation conservationist and propel them in their career trajectory. Peruvian primatologist Fanny M. Cornejo was named the first recipient of the award for her incredible work with the illusive yellow-tailed woolly monkey and Andean bears. As a result of her win, Cornejo was named one of "The 50 Most Powerful Women in Peru" by *Forbes* Peru. She continues her work as executive director of Yunkawasi and is currently planning celebrations for the 50th anniversary "rediscovery" of the yellow-tailed woolly monkey discovery with 2018 Prize Winner Dr Russ Mittermeier, who first spotted the primate in the Peruvian forest in 1974.

While the Indianapolis Prize showcases the remarkable conservation achievements of scientists in the field, the work does not stop here. On many occasions it requires an ambassador to advocate and encourage the public to be champions for wild things and wild places. The Jane Alexander Global Wildlife Ambassador Award was created to recognise the dedicated advocacy and outreach of a very few individuals who are changing the future by sharing their passion for the untamed treasures of our planet. Named in honour of award-winning actress and conservationist Jane Alexander, the Global Wildlife Ambassador Award is given to an individual who supports the natural world by leading others to action. Past winners of the award are Sigourney Weaver, Harrison Ford, His Serene Highness Prince Albert II of Monaco,

and most recently, wildlife photographer and *National Geographic* Explorer Joel Sartore.

The Indianapolis Zoo has a long history of innovative conservation strategies and public policy measures aimed at saving wildlife. The success of the Indianapolis Prize inspired the creation of a new initiative launched last year that continues to champion conservation efforts worldwide. The Indianapolis Zoo Saving Species Challenge is a USD 1 million investment designed to change the trajectory of a single species and improve the existing status of a threatened species to its next best designation on the International Union for Conservation of Nature (IUCN) Red List. Dr Rob Shumaker, President & CEO of the Indianapolis Zoo, noted, "Reversing the decline of a species takes time. If we trust the science and stay focused, we will save species. The Saving Species Challenge will serve as a model for other like-minded organisations to replicate."

Field conservationists from around the world were invited to apply for the Indianapolis Zoo Saving Species Challenge to identify an animal species and create a programme that would give that species the best opportunity to be downlisted. A Jury of international animal conservation experts will choose the winner this summer, and that organisation will have five years to activate the programme and show progress. The winner of the Saving Species Challenge will be announced later this year.

To continue the support of conservation leadership in action, the Indianapolis Prize created an award in 2023 for early career scientists. The biennial Indianapolis Prize Gala is an inspiring evening celebrating the victories of the prize winner and DeHaan Finalists. "Twenty years since its inception, and the Indianapolis Prize continues to be a beacon of hope," said Karen Burns, Executive Director of the Indianapolis Prize and Executive Vice President at the Indianapolis Zoo. "As we look ahead to the tenth Gala next year, we will celebrate the dedication of conservation heroes around the world and share their inspiring tales of courage and tenacity. Their efforts inspire us and remind us that we can all take action to protect our planet's precious wildlife for future generations." Leading up to the Gala, special events, such as Meet a Hero – an event where Zoo visitors can meet the prize heroes, and the Michael I. Crowther Conservation Forum – a panel discussion on leadership in challenging environments, connect conservationists with influential individuals, community leaders and youth in the midwestern United States.

The Indianapolis Prize will host the tenth Indianapolis Prize Gala on 27 September, 2025. The gathering of acclaimed figures in conservation highlights the Indianapolis Zoo's ongoing commitment to solving Earth's intricate challenges. The Gala is a culminating event to inspire guests about animal conservation and spotlight conservation's most noble heroes.

As the twentieth anniversary of the Indianapolis Prize marks a milestone in the global conservation movement, it serves as a testament to the tireless efforts of individuals dedicated to protecting our planet's biodiversity. We are inspired by the two decades of honorees who have made their mark on the Indianapolis Prize and on the world. We step into the next decade determined to seek out new ways to support conservation work.

Ring-tailed Lemur (*Lemur catta*) © *Fred Cate*

THE EVOLVING ROLES OF ZOOS IN CONSERVATION: INSIGHTS FROM THE 2023 INTERNATIONAL CONGRESS FOR CONSERVATION BIOLOGY

Lynn Von Hagen *(Denver Zoo)*, Chase LaDue *(Oklahoma City Zoo)*, Rebecca Snyder *(Oklahoma City Zoo)*, Angela Yang *(Denver Zoo)*

2023 International Congress for Conservation Biology © *Denver Zoo*

Zoos, aquariums and botanical gardens (hereafter, "zoos") continue to evolve as our institutions redefine their roles within a society that is increasingly concerned about animal welfare and global issues involving wildlife.

Key ways that zoos have made progress include conducting *in situ* research that guides conservation initiatives, and/or supporting conservation partners, many of whom are in the home ranges of the animals at our institutions. With these efforts, many zoos are active and impactful conservation practitioners, with members of the World Association of Zoos and Aquariums (WAZA) contributing over $350 million USD to field conservation annually (WAZA 2015). Another milestone for zoos was the International Union for Conservation of Nature's Species Survival Commission's (IUCN SSC's) Commission Position Statement 'on the Role of Botanic Gardens, Aquariums, and Zoos in Species Conservation', which was released in 2023 (IUCN SSC 2023). The IUCN is the world's pre-eminent environmental network bringing governments, civil society and global experts together to inform and advance conservation, including maintaining the IUCN Red List of Threatened Species. The SSC, a network of over 9,500 experts providing scientific information on biodiversity conservation, released the statement with three goals:

1. To outline the role of zoos in different areas of conservation,
2. To encourage each institution to live up to their commitment to conserving all biodiversity, and
3. To propose that all members of the conservation community work together to collectively address the biodiversity crisis.

The statement points out the often "undervalued, underrecognised, and misunderstood" contribution of zoos to conservation and encourages active *in situ* and *ex situ* collaboration within the conservation community using the *One Plan Approach* (CPSG 2023). As zoos are increasingly recognised as having a substantial role in the conservation landscape, there is an opportunity to re-imagine our institutions as "zoo-based conservation organisations" that make authentic, impactful contributions towards reducing biodiversity loss and supporting communities living alongside wildlife.

Recently, zoos demonstrated their evolving roles as conservation leaders at the International Congress for Conservation Biology (ICCB) held

in Kigali, Rwanda, in July 2023. Two separate symposia were chaired by zoo leaders: *The Evolving Role of Zoo-based Conservation Organizations in Global Conservation* (led by Denver Zoo) and *The Power of Zoo Partnerships to Respond to Biodiversity Challenges: Inspiring and Engaging Local and Global Communities* (led by Oklahoma City Zoo and Botanical Garden). In addition, insights were gained from poster presentations and *in situ* conservation practitioners in a round table discussion on capacity-sharing opportunities. During the symposia, discussion topics ranged widely, such as strategically developing and supporting conservation partnerships, the important role of *ex situ* efforts in recovering species listed as Extinct in the Wild, fostering living pollinator classrooms for local communities, addressing the challenges and benefits of conducting both *in situ* and *ex situ* research, and strengthening women's capacity in leadership where needed. Presenters represented multi-national zoos and their partners, and both sessions were well attended with robust discussions on how zoos can impact conservation in a rapidly changing world. Given the similarities between the symposium sessions, the two zoo-based groups convened to discuss how they could collaborate and support one another, including publishing and disseminating lessons from the conference and how to advance this movement across the zoo world. Representatives from approximately 14 zoos were in attendance for ICCB, likely the highest number yet for this conference, demonstrating that zoos are emerging as an influential voice in the conservation community.

One prevalent theme at conservation conferences such as ICCB are the different global conservation priorities and the need for all stakeholders to collectively address these issues. There are several ways that zoos can reaffirm their role as leaders in local and global communities and align their activities with global conservation priorities. Dismantling top-down, colonial approaches is essential for developing community-centred conservation through an equitable lens, promoting co-design, and integrating the voices of traditionally marginalized groups in conservation. During the ICCB symposia, delegates provided examples of developing and centring conservation projects with local knowledge holders, including North Carolina Zoo's range of international projects, and Houston Zoo's partnership with Conservation Heritage-Turambe, conserving mountain gorillas through education and a One Health approach in Rwanda. While often difficult in the field of conservation, maintaining conservation optimism and creatively telling stories of conservation 'successes' can help motivate others to act and inform the public on the varied and important roles of zoos in conservation. As models of promoting conservation optimism, the Entebbe Zoo in Uganda talked about managing conservation in challenging conditions, and Lincoln Park Zoo inspired ICCB delegates with their progress in addressing the Asian songbird crisis. Capacity-strengthening and knowledge sharing are essential for conservation practitioners to develop and exchange the wealth of *in situ* and *ex situ* skills and knowledge.

Chair of the SSC, Prof Jon Paul Rodriguez, giving the preamble to Denver Zoo's presentation © *Denver Zoo*

Presentations from Oklahoma City Zoo highlighting collaborative conservation projects within zoos © *Denver Zoo*

For example, the Oklahoma City Zoo is currently applying scientific techniques developed in zoos to research free-ranging Asian elephants in Sri Lanka while also applying observations of wild elephants to inform the care of their multi-generational group of elephants at the zoo. Being at the forefront of technological innovation is also important for zoos as demonstrated by Denver Zoo's presentation of a prioritisation tool to assist institutions in making scientifically informed, data-driven, investments in conservation. Incorporating some of these tangible examples into how zoos approach conservation can help bring zoos into important conversations that collectively address some of the globe's daunting environmental challenges such as climate change, biodiversity loss and pollution.

Perhaps now more than ever, zoos are uniquely positioned to engage with millions of visitors wisely and strategically on the importance of conservation action and how our institutions are already a part of the greater conservation community. Despite a long history of involvement in genetic rescue and reintroductions that have saved species on the brink, zoos are not always at the top of the public's mind when considering those at the forefront of conservation. Investing resources and expertise more heavily into supporting conservation is a first step towards increasing our impact and raising the profile of zoos beyond our traditional image. However, these efforts must be authentically incorporated into our institutions where appropriate. Otherwise, performative actions will negate any advances we are making in the narrative around the role of zoos. It is critical to leverage the momentum from positive developments such as the IUCN statement on zoos and discussions initiated at ICCB to elevate the profile of zoos involved in conservation and encourage other zoos to join in conservation efforts. By aligning ourselves more closely with global conservation priorities, working through *in situ* and *ex situ* alliances, and sharing stories of the outcomes, zoos have a unique opportunity to impact and inform our visitors about the important role our institutions can have on preserving global biodiversity and our commitment to expand that role.

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Denver Zoo delegation at ICCB and colleagues from the Rwanda Wildlife Conservation Association © *Denver Zoo*

ENHANCING COLLABORATION: INSIGHTS FROM THE 5th JOINT TAG CHAIRS MEETING

Paula Cerdán, *Head of Conservation and Animal Welfare, WAZA, David Field, WAZA CPM Chair and RZSS CEO*, Thalia Pelegrin, *Conservation and Animal Welfare Intern, WAZA*

From the 8–9 May, the 5th Joint Taxon Advisory Group (TAG) Chairs Meeting brought together zoo and aquarium colleagues from around the world, providing a platform to strengthen connections and discuss key topics, innovative ideas and the opportunities to strengthen our community by working collaboratively. For the two days of conference, a total of 126 passionate leaders from 26 different countries/regions assembled in Scotland, hosted by Edinburgh Zoo home of the Royal Zoological Society of Scotland (RZSS). Delegates participated in a variety of talks ranging from integrated population management and RZSS's approach to combining *ex situ* and *in situ* conservation efforts in Scotland, to WAZA's new ambitious 2027 Population Management Goal and the potential for zoos and aquariums to contribute to the Convention on Biological Diversity's Global Biodiversity Framework and many other topics.

A peek into two days of Joint Tag Chairs Meeting discussions

Following two intense days of EAZA TAG meetings and WAZA's Committee for Population Management mid-year meeting, the Joint Tag Chairs Group (JTAG) meetings were held next with plenty of engaging topics.

Following their goal to reverse the decline of at least 50 species by 2030, David Barclay and Helen Taylor, members of the RZSS conservation team,

Representatives of different WAZA member associations discuss the potential of the WAZA 2027 Population Management Goal during a panel session © *RZSS*

David Field, RZSS CEO and Chair of WAZA CPM delivered a welcome speech © *RZSS*

The icebreaker included bagpipe lessons for JTAG attendees © *RZSS*

JTAG Participants during the evening at Edinburgh Zoo © *RZSS*

opened the conference with an inspiring keynote that provided case studies of their current actions and progress to conserve Scotland's most threatened species, including the charismatic wild cat and other species with a different charisma, like the pine hoverflies or the medicinal leeches; and highlighted how RZSS is using effective population management and the key role in utilising an integrated approach by combining *ex situ* and *in situ* conservation efforts.

Paula Cerdán, Head of Conservation and Animal Welfare for WAZA, explained the premise of WAZA's new goal, the WAZA 2027 Population Management Goal, touching on its relevance in supporting regional capacity for professional and efficient population management, as well as supporting the role of zoos and aquariums as a part of a global conservation community and how such goal aligns with WAZA's new vision to be a globally recognised and trusted leader in advancing conservation and animal welfare. The talk welcomed several regional representatives to share their insights on what this would bring to their region as well as to the global zoo and aquarium community, and attendees engaged in a Q&A on the topic.

Other sessions held during the first day revolved around using the momentum from events such as this JTAG meeting to strengthen regional and global collaborations, and how we could make use of the global network to optimise our efforts and the way we work together. Within this, an update on the future changes to ISB and GSMP frameworks was presented, with the new frameworks aiming to align more closely with global conservation frameworks such as the Kunming-Montreal Global Biodiversity Framework and the IUCN *ex situ* guidelines and supporting direct conservation efforts.

To wrap up the first day, the final topic of discussion centred on the aquarium community and the unique challenges faced regarding species sustainability and the ethical sourcing of animals. In a room where most attendees were based at a zoo, the spotlight shifted to aquarium representatives on stage, who evidenced the importance of collaboration between zoos and aquariums, and the need for joint efforts to

Christian Olaciregui, Chair of the ALPZA Conservation Committee, delivered a presentation on ALPZA's population management framework © *RZSS*

address shared concerns and explore different mutually beneficial opportunities to common challenges.The second day of the Joint TAG chairs meeting started with a look back in 2022, when the United Nations Biodiversity Conference of the Parties, led to the adoption of the Kunming-Montreal Global Biodiversity Framework. Escaping the shadows of the failed Aichi Targets, a session held during JTAG encouraged the meeting participants to explore how to move from Agreement to Action and invited attendees from around the globe to engage in the opportunity to actively contribute to the parties' efforts to reverse human induced declines in biodiversity and help to set the world on a path towards "Living in harmony with nature". As James Biggs, from the Zoo and Aquarium Association Australasia (ZAA) said during his opening talk, "Biodiversity Conservation is a shared responsibility", and that was clearly highlighted on the following presentations by Kira Mileham, from the IUCN SSC, who also emphasised that "we know how to save species, we need to do more of it, and do it together". Fiona Sach, from the Zoological Society of London, presented on the Extinct in the Wild Alliance and highlighted the unique role that zoos and aquariums have as custodians of 39 animals currently listed as Extinct in the Wild on the IUCN's Red List. William van Lint, from EAZA, presented on the Association's new Acquisition and Disposition policy, and the link that such policy has with the CBD framework.

The day followed by putting the topic of euthanasia for population management purposes at the centre of discussion. The session brought communication experts from RZSS and Chester Zoo, joined by the General Curator at Copenhagen Zoo, Mads Frost Bertelsen, and Sant Louis Zoo's Director of Research, David Powell to share insights on the ethical, scientific, perceptions and communication considerations surrounding this practice and how best to collaboratively work through this topic. The discussion ended up with an engaging panel and Q&A session between speakers and the meeting attendees. Whilst population management euthanasia is a complex topic with significant regional variation and diverse perspectives, it is essential for us as part of a global community to understand these differences and subsequent approaches, and collectively work together towards shared goals and effective communication of this sensitive issue.

The conference concluded with a session on the importance of mate choice for effective *ex situ* population management and showcased

several case studies from different regions and taxa; this included a discussion on the role zoos and aquariums must play to safeguard the future of species, and the use of biobanking against extinction. Work from different regions was shared alongside a discussion of how TAGs can collaborate to bolster the impact of biotechnology.

It has been 10 years since the first Joint TAG Chairs Meeting gathered in Alphen ann den Rijn, Netherlands, and these biennial meetings, continue to provide opportunities for different regions to share and learn from each other, as well as reinforce connections and explore different ways of working together to strengthen the global zoo and aquarium community.

The 5th Joint Taxon Advisory Group (TAG) Chairs Meeting, hosted by RZSS Edinburgh Zoo, in Scotland, was a testament to the collaborative spirit driving advancements in zoo and aquarium conservation and furthering the WAZA Strategic objectives of transformative leadership and species impact. With colleagues from around the world gathering under the auspices of the Royal Zoological Society of Scotland (RZSS), the event served as a platform to forge new connections, look into the future by positioning the work of our community into the global conservation community, and chart the course for stronger inter-regional collaboration to optimise zoo and aquarium conservation efforts.

The WAZA CPM mid-year meeting

Ahead of the 5th Joint TAG Chairs Meeting, the WAZA Committee for Population Management (CPM) held its mid-year meeting. Chaired by David Field from the RZSS, with Candice Dorsey (AZA) and James Biggs (ZAA) as vice chairs, the committee reviewed progress towards its workplan, which includes ambitious tasks, such as the review of the International Studbook (ISB) and Global Species Management Plan (GSMP) frameworks. The other main task of the CPM is the development and implementation of the WAZA 2027 Population Management Goal (27PMG), a goal that will see WAZA regional associations develop population management frameworks that include the elements defined for professional and effective regional population management. The committee's work on the 27PMG will be launched in November 2024 at the 79th WAZA Annual Conference in Sydney, hosted by Taronga Zoo.

David Field, WAZA CPM Chair and WAZA Vice President, said: "It is exciting to work with CPM towards the implementation of a new goal that will not only strengthen regional population management globally but also strengthen WAZA towards being a trusted leader in conservation."

Members of the WAZA Committee for Population Management (CPM) after their mid-year meeting in Edinburgh © *WAZA*

EXTENSION OF THE WAZA 2023 ANIMAL WELFARE GOAL

Paula Cerdán, *Head of Conservation and Animal Welfare, WAZA*

Malachite butterfly (*Siproeta stelenes*) feeding © *Ocean Wise, Vancouver Aquarium*

Since 2022, WAZA has undertaken the process of strategic planning to leverage the role of our global community as leaders in animal welfare and conservation. In the pursuit of achieving our new vision, the achievement of the WAZA 2023 Animal Welfare Goal (23AWG) is vital.

In 2023, six associations met the 23AWG. These associations are the Latin American Association of Zoos and Aquariums (ALPZA), the Association of Zoos and Aquariums (AZA), Canada's Accredited Zoos and Aquariums (CAZA), the European Association of Zoos and Aquaria (EAZA), the Pan African Association of Zoos and Aquaria (PAAZA) and the Zoo and Aquarium Association Australasia (ZAA).

Other associations began progressing towards achieving it, and in early 2024, the Southeast Asian Association of Zoos and Aquariums (SEAZA) met the WAZA 23AWG. To allow all WAZA member associations to achieve the 23AWG, the WAZA Council decided in January 2024 to extend the deadline.

SEAZA Meets the WAZA 2023 Animal Welfare Goal

In early March, the Southeast Asian Association of Zoos and Aquariums (SEAZA) met the WAZA 2023 Animal Welfare Goal. Cheng Wen Haur, Chair of SEAZA, said:

"SEAZA's achievement in meeting WAZA's 2023 Animal Welfare Goal is testament to our commitment to the well-being of the animals under our care. We will continue to work closely with WAZA to ensure the animals thrive in the care of our members."

SEAZA is the latest WAZA member association that has met the 23AWG.

The achievement of this Goal is a requirement for WAZA membership, as established in Article 5 of WAZA bylaws: "Association Members shall be responsible for the development of animal welfare evaluation programmes based on standards agreed to by WAZA and for the enforcement of those agreed-upon standards on their membership."

All WAZA National and Regional Associations must comply with it in keeping with the new timeline.

The updated timeline is as follows:

By November 2024:

WAZA National and Regional Associations must have an animal welfare evaluation process in place and such a process must include specific elements approved by WAZA.

WAZA will be reaching out to WAZA National and Regional Associations members in mid-2024 for updates on their progress toward this goal.

While we are still exploring the feasibility of the timeline, the second element in the 23AWG, which expands involvement to include institutional members (zoos and aquariums members) is likely to be as follows:

By November 2027:

All WAZA institutional members must be compliant with this process.

This decision acknowledges the significant progress already achieved towards this ambitious goal and considers various factors that may have influenced its implementation since the adoption of the Resolution in 2019, including the breakout of a global pandemic.

In January 2024, the WAZA Executive Office contacted the National Associations who had expressed their commitment to being evaluated by another WAZA Welfare Approved Association, ideally from the same region. If you wish to partake in this process, please sign and return the reliance agreement, which can be downloaded here.

Please reach out to Paula Cerdán, Head of Conservation and Animal Welfare at animalwelfare@waza.org if you have any questions.

Keeper at Lincoln Pak monitoring animal welfare using the zoo's welfare app © *Lincoln Park Zoo*

UPDATE ON INTERNATIONAL STUDBOOKS (ISBS)

Changes between 1 February 2024 and 3 April 2024

International Studbooks

Published International Studbooks

- **Pygmy Hippopotamus** (*Choeropsis liberiensis*), 2023 ed. – Beatrice Steck (Basel Zoo)
- **Indian Rhinoceros/Greater One-Horned Rhinoceros** (*Rhinoceros unicornis*), 2023 ed. – Beatrice Steck (Basel Zoo)
- **Orangutan** (*Pongo sp*), 2022–2023 ed. – Megan Elder (Como Park Zoo and Conservatory)
- **Goeldi's Monkey** (*Callimico goeldii*), 2023 ed. – Sheila Wojciechowski (Chicago Zoological Society)

ISB Transfers

- **Golden Lion Tamarin** (*Leontopithecus rosalia*), vacancy filled by Kenton Kerns (Smithsonian's National Zoo and Conservation Biology Institute)
- **Andean/Spectacled Bear** (*Tremarctos ornatus*), vacancy filled by Sara Colaendra (Smithsonian's National Zoo and Conservation Biology Institute)
- **Cotton Top Tamarin** (*Saguinus oedipus*), from Andrea Echeverry to Christian Olaciregui (Fundación Botánica y Zoológica de Barranquilla)

New ISB

- **Madagascar Sacred Ibis** (*Threskiornis bernieri*), New ISB approved and keeper position filled by Harrison Edell (Dallas Zoo)

Vacant International Studbooks

- **Buff-crested Bustard** *(Lophotis gindiana)*
- **Edward's pheasant** *(Lophura edwardsi)*

Would you or someone in your team like to keep an International Studbook? Would you like to know more about Global Species Management Plans?

Get in touch with the WAZA Executive Office at conservation @waza.org

Or visit www.waza.org to learn more about these programmes and how to get involved

Sumatran Orangutan (*Pongo abelii*) © *Chester Zoo*

Peter Müller © *Andreas Birkigt*

Peter Müller, fifty years as ISB keeper

After fifty years of dedication as the Tiger International Studbook Keeper, Peter Müller has stepped down from his role as of January 2024. His work began in 1973 with only two subspecies of Tiger included within the ISB, and has since grown to include all six subspecies and encouraged the creation of several regional and global breeding programmes.

The World Association of Zoos and Aquariums (WAZA) would like to acknowledge the enormous commitment and countless contributions Peter Müller provided to the International Studbook Programme, which has assisted in the creation of healthy insurance populations of Tigers worldwide.

WAZA extends our sincerest thanks to Peter Müller, and wishes him the best with all his future endeavors.

BEHIND THE ZIMS

A Q&A with WAZA International Studbook keepers

Behind the ZIMS aims to showcase the behind the scenes work of International Studbook Keepers and their management using Species360's Zoological Information Management System (ZIMS), to show the relevance and contributions of WAZA International Studbooks in the work we do in wildlife conservation and professional population management.

Q&A with Dr Sander Hofman

Sander Hofman

General Curator, Royal Zoological Society of Antwerp, Okapi International Studbook Keeper, Okapi EEP Coordinator

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ISB kept and featured:	*Okapia johnstoni*
ISB Host Organisation:	Royal Zoological Society of Antwerp, Belgium
Year Started as ISBk:	2013

For how many years have you been acting as the species' International Studbook Keeper (ISBk) and why did you become an ISBk?

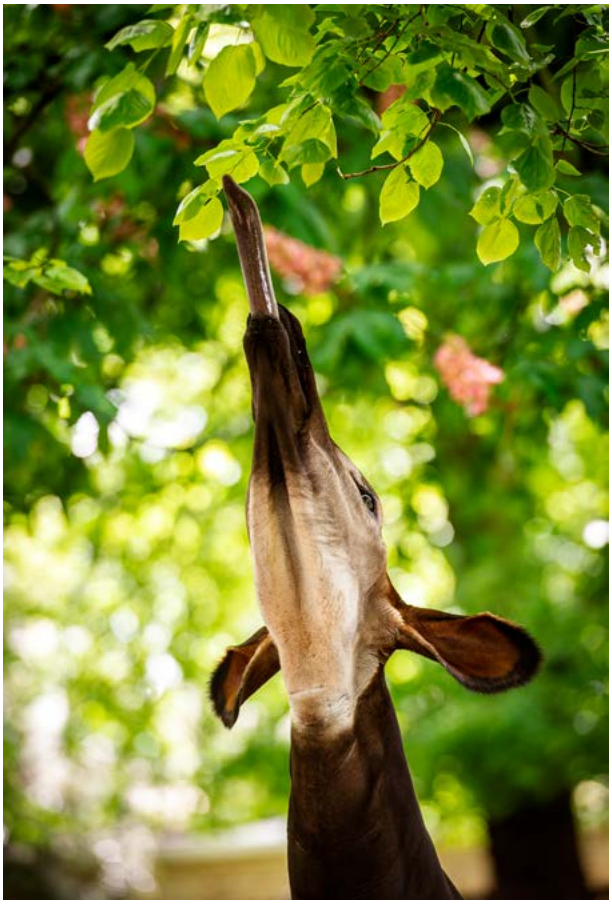
I have been an International Studbook Keeper for 11 years now. When I was hired by Antwerp ZOO as curator of mammals in 2006 after my predecessor Bruno Van Puijenbroeck retired, both the Okapi EEP and the International Studbook were entrusted to my then colleague Kristin Leus. I was still young and inexperienced and mainly focussed on primate breeding programmes as I transferred from Apenheul Primate Park, in the Netherlands. Antwerp ZOO has always maintained the studbook extremely accurately since its inception. When Kristin left a few years later to take up a new challenge, the institution had enough confidence in me to continue my predecessor's great work.

How has the International Studbook (ISB) contributed to the species' conservation? What do you see as the value of your ISB?

In 1977, an international Okapi symposium was organised at Antwerp ZOO. It was attended by various scientists and representatives from European and US zoos who were actively involved in the management of Okapi under human care. During the symposium, it was agreed to create a breeding consortium with the goal of donating animals to a common breeding pool. This initiative aimed to facilitate non-commercial exchanges of animals between zoos to enhance breeding efforts. This was in 1977, so the approach was quite revolutionary. This was also when the International Studbook for this species was born. Furthermore, it was agreed that participating zoos were and are expected to contribute to *in situ* Okapi conservation.

In the years following the international symposium, the North American Species Survival Programme (SSP) and European Breeding programme (EEP) were established. Negotiations for an official agreement on *in situ* and *ex situ* Okapi conservation between the SSP and the Government of Zaire (now known as the Democratic Republic of Congo) started, and in 1987, one of the main sponsors of the initiative 'Gilman International Conservation' entered into a formal partnership with the then Institut Zaïrois pour la Conservation de la Nature (IZCN), which is now known as the Institut Congolais pour la Conservation de la Nature (ICCN), and the Okapi Conservation Project was born.

To this day, the unconditional support of zoos to the Okapi Conservation Project remains strong. The existence of the project has probably ensured that the Ituri forest is still a stronghold for Okapi, a species endemic to the Democratic Republic of Congo. An achievement to be proud of!



Okapi in Antwerp ZOO © *Jonas Verhulst*

How has the ISB contributed to *ex situ* conservation in practical terms?

From the first Okapi, ISB#1 'Buta', to arrive at Antwerp ZOO in 1919, to the animals born today in the 63 zoos around the world, all are carefully recorded in the International Studbook. As a result, the pedigree is 100% known, and the coordinators of the breeding programmes have a fantastic dataset to work with and base their management on. International Studbook analyses have revealed that it is only possible to maintain a sustainable population if the *ex situ* population is managed globally as a metapopulation, with periodic exchanges of animals between regions.

Because the dataset is so unique and complete, it is regularly used for training, research on genetics, breeding output, husbandry, and so on. North American and European colleagues meet on a regular basis to align the management of their respective programmes. Once every five to eight years, we also organise a joint in-person meeting.

How do you see your work as an ISBk supporting conservation action for the species in the wild?

Since the 1980s, when zoo directors keeping Okapis recognised the need to collaborate not only for the benefit of Okapis in zoos but also to make a difference for their wild counterparts, the International Studbook and the Okapi Conservation Project have been closely intertwined. This is an achievement of which we can be incredibly proud and cherish as a zoo community. It is crucial that this mindset remains unchanged. We impart this ethos to every institution that seeks to join the programme to ensure its integrity is maintained.

What do you see as the next chapter or role for International Studbooks?

As the global Okapi *ex situ* community, we have articulated a shared vision and mission. Our vision is to have "Okapis in zoos and conservation centres connect people with global conservation issues, challenges and successes; and enable development of strategies and actions to secure a future for Okapi in nature."

And the mission being to "maintain a cooperatively managed global *ex situ* population of Okapi that inspires conservation action through education, fundraising and focused scientific research, and serves as an insurance population for the wild."

In this way, we are also part of, and have contributed to, the Okapi Conservation Strategy and Status Review (Kümpel *et al.*, 2015), and the global *ex situ* community will have to continue to fulfil these roles in the *One Plan Approach*. The International Studbook ensures that as an *ex situ* community, we continue to contribute in the best way possible for the species. There is an old African proverb that says "If you want to go quickly, go alone. If you want to go far, go together."

WAZA WELCOMES NEW MEMBER – THE WILDS

The World Association of Zoos and Aquariums (WAZA) is pleased to welcome a new Institution Member to the global zoo and aquarium community – The Wilds.

The Wilds, spanning nearly 10 000 acres, stands as one of North America's premier conservation centres. Housing a diverse array of rare and endangered species alongside indigenous wildlife, its mission is to make a positive impact on people, wildlife, and wild places.

Through proactive assessment tools and continual evaluation, The Wilds ensures the thriving wellbeing of every animal in its care as part of its comprehensive wellbeing programme. Collaborating with various stakeholders, from government agencies to local communities, The Wilds actively participates in species recovery efforts and habitat restoration projects, both locally and internationally.

In addition to its conservation efforts, The Wilds engages visitors of all ages through educational programmes and initiatives, encouraging a culture of conservation and environmental stewardship. From youth camps to adult volunteer programmes, The Wilds fosters a community committed to saving wildlife and preserving habitats for generations to come.

The Wilds is also a member of the Association of Zoos and Aquariums (AZA) and certified by American Humane.

More information about The Wilds may be found on their **website**.

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