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WAZA
World Association of Zoos and Aquariums

news

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TOGETHER, WE CAN

REVERSE THE RED

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WAZA Membership as of 19 March 2026

Affiliate:	10
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Corporate:	40
Institution:	288
Emeritus:	94
Honorary:	29

Future WAZA Conference

2026: Cologne Zoo, Germany, from 25 to 29 October 2026

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PRESIDENT'S LETTER

Dear WAZA Members and Friends, I have long believed that when people meet in open, trusted spaces – taking the time to truly listen and exchange perspectives – a community becomes stronger, smarter and more capable of meaningful action. That conviction was reaffirmed for me at the AZA 2026 Directors' Policy Conference in January, where constructive dialogue once again proved its power to turn complexity into progress.

This belief sits at the heart of WAZA's global gatherings. Our meetings offer something distinctive: spaces where leaders from across the global zoo and aquarium community can connect openly, challenge assumptions, learn from one another and build shared understanding. These moments of connection are not only valuable – they are essential. They are why I have always considered WAZA meetings unmissable.

As we look ahead to 2026, our work will be guided by a shared theme: **Stewards of Tomorrow**. Across regions, cultures and perspectives, we carry a collective responsibility for conservation impact worldwide. In an increasingly complex and rapidly changing world, stewardship is not only about what we protect, but about how we lead – together, through WAZA – to shape shared direction and lasting impact.

In 2026, this responsibility will be advanced through three global gatherings, each with a distinct and complementary role.

Our **Mid-Year Meeting**, taking place online on 17–18 June 2026, reflects WAZA at its most inclusive. Introduced in 2024, it was intentionally designed to ensure that geography or resources are never barriers to participation. Under the theme *Stewards of Tomorrow: Leadership Across Differences, Impact Without Borders*, the meeting will focus on equipping conservation leaders to navigate diversity, complexity and change – united by shared purpose.

Later in the year, from 25–29 October, we will gather in person for the **81st WAZA Annual Conference**, hosted by Cologne Zoo in Germany. Framed by *Stewards of Tomorrow: Purpose, Direction, and Global Responsibility*, this flagship event offers a vital opportunity to reflect together, exchange ideas and help shape shared direction with intent. Hosting the conference at one of Europe's most respected institutions provides a fitting setting for conversations that bridge heritage, leadership and the future of conservation.

From 25–28 May 2026, we will also convene the **6th Joint TAG Meeting** at Taipei Zoo – the first time this global forum will be hosted in Asia. This meeting is where connection becomes action: strengthening collaboration across regions and taxa, aligning *ex situ* and *in situ* efforts, and bringing together the people, data and tools essential for effective population management and species recovery.

What unites all three meetings is the spirit in which they are held: welcoming, open and grounded in a genuine willingness to listen. These are spaces where diverse perspectives are valued, leadership is shared and our collective expertise is mobilised to steward the future together.

I warmly encourage you to join us across these defining moments in 2026. Your participation strengthens our community and helps shape the shared direction that defines WAZA.

I look forward to connecting with many of you in the year ahead.

Yours aye,
David Field
WAZA President

CEO'S LETTER

Dear WAZA Members and Friends, as we open the first edition of WAZA news Magazine for 2026, we do so at a moment of both challenge and possibility. In our lifetime, we have all experienced how the world is *moving at an ever faster pace.* We now even speak of permacrisis – a permanent state of social, political and environmental change – with increased pressures on wildlife, ecosystems and the institutions that care for them. During such times, the importance of standing together, with a clarity of purpose and shared direction, *becomes ever more critical, and helps to bring the community together to move forward.*

Across regions and cultures, zoos and aquariums are navigating different realities, yet we are united by a common responsibility: to deliver meaningful conservation impact for wildlife and for people, worldwide. We know that responsibilities – and solutions – cannot be carried in isolation, particularly as new actors emerge. *Progress requires long-term trust, collaboration* and a willingness to listen to one another, learn from diverse perspectives and move forward together.

At WAZA, we see our role as convening and strengthening this global community – helping us stay connected when unity is tested, and focused when complexity threatens to fragment our efforts. By working together, we are better equipped to steward the future: shaping shared priorities, aligning action across regions, and leading with integrity as a global zoo and aquarium community.

Looking ahead to the year before us, our focus remains firmly on fostering this sense of collective leadership particularly as our 2023–2026 Strategic Plan comes to an end, and we begin discussions on a new strategic plan for the years ahead. Whether through global policy engagement, shared frameworks for animal welfare and conservation, or the spaces we create for dialogue and collaboration, WAZA will continue to work in service of unity, shared responsibility and common purpose.

This edition reflects that forward-looking spirit – highlighting initiatives, voices and collaborations that demonstrate what is possible when we act together. Each contribution is a reminder that while our contexts may differ, our commitment to wildlife – and to one another – binds us as a global alliance.

SEEING SCIENCE UNFOLD: THE RESEARCH STATION AT ZOO ZÜRICH

Birte Fröhlich, PR Manager, *Zoo Zürich*

Since its inauguration at the end of 2024, guests at Zoo Zürich can observe first-hand one of the core responsibilities of a modern zoo: scientific research. Alongside species conservation, nature conservation and education, research is one of our key areas and plays a crucial role in understanding biodiversity and securing the long-term survival of threatened species. Consequently, research activities should no longer take place exclusively behind the scenes and out-of-sight for our guests. Instead, visitors are invited to witness how science, animal care and species conservation interact.

Zoo Zürich is currently facilitating over 100 research collaborations with Swiss and international universities and scientific institutions around the globe. Until recently, much of this work remained invisible to the public. The Research Station was opened to change this: to pull back the curtains on daily research activities, large glass windowpanes give visitors a direct view of the rooms in action.

The Research Station spans 720 m² and took three years to plan and build, funded entirely by donations. Its location is intentional: research is no longer peripheral, it stands at the zoo's entrance, where visitors begin their journey.

This prominent placement underscores the central role of research in a modern zoo's mission.

Black-barred Limia *(Limia nigrofasciata)*
© Zoo Zürich, Andreas Zarling

Six Research Rooms, Six Questions

At the heart of the Research Station are six dedicated research rooms, ranging from 11 m² for the smallest room to 22.5 m² for the largest. Two of these rooms meet biosecurity and Biosafety Level 2 (BSL-2) requirements with highly precise temperature and humidity control. They function as regulated, experimental environments comparable to climate chambers, for which light cycles, UV exposure and seasonal dynamics can also be precisely regulated, logged and reproduced.

The remaining four rooms do not meet specific biosafety classifications but still provide basic climate control. Access to these rooms is strictly limited to a small number of specially trained staff members. Together, the different levels of environmental control across all six rooms enable experimental designs that closely simulate natural habitats while ensuring scientific reproducibility.

Ideal Environment for Scientific Discovery

The Research Station provides an exceptional setting for addressing a wide-range of scientific questions. At present, only a limited number of long-term studies are in place, but this is expected to change in the coming years. In parallel, Zoo Zürich is working with local universities to establish a dedicated research institute. Future scientists will play a central role in defining the long-term research agenda and setting scientific priorities for the station.

In the meantime, focused research projects are already underway. For example, a study on amphibian cognition conducted in collaboration with the University of Bern examines discrimination abilities and associative learning abilities in poison dart frogs. The remaining research capacities of the station are used primarily to improve our understanding of threatened species for which little is known about husbandry requirements and reproductive biology. The data generated through this work directly informs conservation breeding efforts and, at the same time, is actively communicated to the public. In this way, the Research Station functions not only as a scientific platform, but also as a transparent interface between research, practical conservation and zoo visitors.

Camille Dufourt measuring UV radiation in Research Room 1 at the research station
© Zoo Zürich, Samer Angelone

Golden poison dart frog *(Phyllobates terribilis)*
© Zoo Zürich, Tim Benz

Research rooms in the research station
© Zoo Zürich, Nick Solland

Species at the Research Station and their IUCN Red List categorisation:

AMPHIBIANS

- Ecuador Stubfoot Toad *(Atelopus balios)*
- Expected Mantella *(Mantella expectata)*
- Golden Poison Frog *(Phyllobates terribilis)*
- Bicolored Poison Frog *(Phyllobates bicolor)*
- Anchicayá Poison Dart Frog *(Oophaga anchicayensis)*
- Vicente's Poison Dart Frog *(Oophaga vicentei)*
- Madagascar Mantella *(Mantella madagascariensis)*
- Blue-sided Tree Frog *(Agalychnis annae)*
- Transmarine Blommersia *(Blommersia transmarina)*

REPTILES

- Manapany Day Gecko *(Phelsuma inexpectata)*
- Lohatsara Ground Gecko *(Paroedura lohatsara)*

FISH

- Insolitus Madagascar Cichlid *(Ptychochromis insolitus)*
- Black-banded Limia *(Limia nigrofasciata)*
- Loiselle's Madagascar Cichlid *(Ptychochromis loisellei)*
- Madagascar Rainbowfish *(Bedotia madagascariensis)*
- Varatraza Madagascar Killifish *(Pachypanchax varatraza)*
- Pollen's Cichlid *(Paratilapia polleni)*
- Dwarf Pufferfish *(Carinotetraodon travancoricus)*

INVERTEBRATES

- Black Beauty Stick Insect *(Peruphasma schultei)*
- Leafcutter Ant *(Atta cephalotes)*
- Manga Stick Insect *(Achrioptera manga)*
- Spirostreptid millipede *(Sechelleptus sp. nov.)*

Enabling Conservation Breeding Through Precision

All species housed in the Research Station are classified as Near Threatened, Vulnerable, Endangered, or Critically Endangered on the IUCN Red List, or belong to taxa for which life history data is nearly absent. For these understudied groups – particularly amphibians, reptiles, fish and invertebrates – successful *ex situ* conservation relies on an understanding of species-specific biology and constraints.

The Research Station's technical systems allow staff and research partners to simulate complete annual cycles for their habitat of origin, such as dry and rainy seasons, daily temperature fluctuations and changes in humidity. Because all parameters are controlled and documented, observed behavioural or reproductive changes can be directly linked to tweaked environmental variables.

This is particularly relevant for ectothermic species dependent on external sources for body heat, with extremely narrow or fluctuating natural habitats, where even minor deviations from optimal conditions could prevent reproduction. Controlled simulations under zoo conditions thus becomes a critical tool for generating applied conservation knowledge. The insights generated within the Research Station are therefore not an end in themselves, but a strategic asset explicitly designed for dissemination.

Direct Visitor Experience

Importantly, the Research Station is not conceived as a static exhibit or an immutable research programme. Species holdings, research and scientific partners are expected to evolve over time. As new conservation challenges emerge and critical knowledge gaps are identified, the rooms remain multipurpose and can be reassigned, reconfigured and adapted accordingly.

Orange-eyed tree frog *(Agalychnis annae)* mating pair
© Zoo Zürich, Monika Bader

Research rooms with educational and scenographic elements *© Zoo Zürich, Nick Soland*

Velvet stick insect *(Peruphasma schultei)* male
© Zoo Zürich, Albert Schmidmeister

At the same time, transparency is a defining feature of the Research Station. Large glass windowpanes provide visitors with direct insight into ongoing research activities. For example, all stages of metamorphosis for breeding amphibians – from simulating seasonal changes to egg-laying, hatching, metamorphosis and data collection – are fully visible for zoo visitors.

Live screens provide background information on the species on display as well as on the research being conducted. Visitors can explore additional content by swiping through the screens.

Interactive elements, particularly aimed at younger audiences, further enhance engagement. One example is a balance scale that translates a visitor's body weight into the equivalent lifting power of a leafcutter ant, turning tangible abstract science into interactive and memorable concepts.

In addition, two large panels – one at each end of the station – present an overview of the full spectrum of 72 highlighted research projects ongoing across the zoo or completed in recent years.

The inquisitive zoo visitor can uncover the latest updates on these studies via QR code linking them to our landing page. The information is presented in a transparent and accessible way, transforming a visit to the Research Station into a memorable educational experience. Guests are not only informed about conservation and research; they can observe it unfolding before their eyes in real time. Such experiences foster understanding, curiosity and emotional connection.

Survey Underlines Success

A survey conducted in late summer 2025 supports this impact. 86% of visitors to the Research Station reported that they liked it and 80% stated that they understood its purpose and goals. The Research Station is more than an educational tool – it is a bold institutional statement: making research visible should not just be a good idea, but a standard for all modern zoos.

THE GROWING ROLE OF ALPZA-CERTIFIED PROJECTS IN LATIN AMERICAN ZOOS AND AQUARIUMS

Martín Bustamante, *ALPZA Conservation and Population Management Committee*
Christian Olaciregui, *ALPZA Conservation and Population Management Committee Coordinator*

Latin America is home to one of the world's richest biodiversity, encompassing tropical rainforests, highland ecosystems, mangroves and wetlands, extensive grasslands, highly productive coastlines and coral reefs. In addition, three of the five top megadiverse countries are found within the region. However, it is also facing some of the greatest environmental pressures and highest levels of social inequality; for example, according to the Living Planet Index the fastest declines in populations of vertebrates have been seen in the region. In this complex context, biodiversity conservation is inherently multidimensional, requiring technical expertise, social engagement, scientific rigour and long-term institutional commitment. The Latin American zoo and aquarium community is increasingly contributing to this challenge through coordinated, science-based and innovative conservation actions.

The Latin American Zoo and Aquarium Association (ALPZA) zoos and aquariums have progressively assumed a more active and strategic role in biodiversity conservation.

One of the clearest expressions of this transformation is the development, growth and consolidation of conservation projects certified by the ALPZA Conservation Committee.

Rescue of a Magellanic Penguin
(Spheniscus magellanicus)
© Fundación Mundo Marino

A Growing Portfolio of Certified Conservation Projects

In recent years, ALPZA has witnessed a notable increase in the number, diversity and quality of conservation projects submitted for certification. This growth reflects a deeper and more widespread commitment among Latin American zoos to contribute meaningfully beyond traditional *ex situ* roles.

Currently, 40 conservation projects are officially certified by the association, representing a diverse portfolio of initiatives led by 26 institutions across 10 countries. These projects, detailed through ALPZA's conservation platform, demonstrate not only geographic diversity but also broad taxonomic and thematic scope.

This upward trend is not accidental; it reflects a shared understanding that conservation excellence requires structured, transparent and periodically evaluated action. It is closely linked to strengthened technical capacities within zoological institutions across Latin America.

The certification process is grounded in rigorous peer review and continuous feedback, ensuring quality and accountability. Five years after certification, projects undergo a revalidation process in which their original objectives and evolving activities are assessed to maintain validity.

Increasing Technical Capacity in the Region

Latin American zoos and aquariums have significantly expanded their technical and professional capacities over the past decades, with ALPZA playing a critical role. This growing expertise has enabled institutions to design and implement conservation projects that meet rigorous technical criteria and align with international standards.

Certification has become both a quality benchmark and a learning mechanism. Institutions preparing projects for certification often strengthen internal planning processes, improve documentation and enhance links with academic and research partners.

As a result, certified projects increasingly demonstrate strong connections with contemporary science, incorporating data collection, monitoring protocols and collaborations with universities and research centres. Conservation actions are no longer isolated interventions but part of broader knowledge-building processes that contribute to regional and global understanding of threatened species and ecosystems.

Global species conservation criteria derived from the IUCN One Plan Approach (OPA) and Species Survival Commission (SSC) frameworks are gaining importance in the region. SSC guidance documents have been incorporated by ALPZA into both the Association's accreditation process and conservation project certification. In this context, two key initiatives have developed in recent years through the Species Survival Centers led by Fundación Temaikèn (Argentina) and Parque das Aves (Brazil). A further step in this direction began in 2025 with Fundación Parque Jaime Duque (Colombia), which became the host institution or primary partner of the regional SSC unit in Colombia.

Read more about ALPZA-certified conservation projects:

www.alpza.com/conservacion

ALPZA
Asociación Latinoamericana de Parques Zoológicos y Acuarios

Sergio Guerra (left) and Paula González (middle) from Fundación Temaikèn receive the WAZA Conservation Award from Dr Judy Mann (right) © *Cali Zoo and WAZA 2025*

From species to ecosystems: a broad conservation vision

The portfolio of ALPZA-certified projects reflects a wide taxonomic range, including mammals, birds, reptiles, fish, invertebrates and particularly amphibians, one of the most threatened vertebrate groups globally. Eleven certified projects focus on amphibian conservation through specialised breeding and assurance colonies of several species, as well as reintroduction efforts, addressing urgent risks such as habitat loss, climate change and emerging diseases.

The projects involving amphibians are strongly contributing data for a globally concerned community that cares for this fragile group, reaching positive results due to the integrality of *in situ* and *ex situ* approaches.

An ecosystem-based approach recognises that long-term conservation outcomes depend on the integrity of entire ecological systems. These projects integrate biodiversity conservation with ecosystem services and landscape-level management. At the recent WAZA 80th Annual Conference in Cali, Colombia, the Reserva Natural Osununú, managed by Fundación Temaikèn received the WAZA Conservation Award.

This dual focus – on both species and ecosystems – highlights a mature conservation perspective that aligns with contemporary global frameworks and reinforces the relevance of zoological institutions as active conservation agents and reinforces the relevance of zoological and aquarium institutions as active conservation agents whose stories and impact reach millions of visitors worldwide.

Community Engagement and Environmental Education as Core Pillars

ALPZA-certified conservation projects strongly place emphasis on local community engagement. In a region marked by social inequality and diverse cultural contexts, conservation cannot succeed without the meaningful participation of local populations and a two-way knowledge exchange. Certified projects are required to demonstrate how they interact with communities living in or near biodiversity-rich areas. This interaction often takes the form of participatory conservation actions, capacity-building initiatives, sustainable livelihood components and long-term educational programmes.

Environmental education is not treated as an accessory, but as a central element of the projects. Initiatives are encouraged to involve local schools, community leaders and grassroots organisations, fostering environmental awareness while building trust and shared responsibility. By linking scientific conservation objectives with social engagement and education, these projects address biodiversity challenges in a holistic and culturally sensitive manner.

Certification and accreditation: a path toward institutional excellence

A key factor driving the growth of certified conservation projects is the evolution of ALPZA's accreditation process. Conservation performance has become a formal and increasingly important component of institutional evaluation.

Certification is progressively understood as a pathway toward excellence, signalling institutional maturity, accountability and alignment with ALPZA's mission. Between 2023 and 2025, there were a total of 17 new certified projects. This increase also reflects the formal recognition of initiatives that have been operating for several years and are now entering the certification process.

Examples from recent cycles include conservation efforts focused on the highly endemic and threatened *Abronia* lizards in Guatemala, led by Aurora Zoo in coordination with government institutions and academic partners, contributing both scientific data and the development of breeding technologies. Another case is the Taylor salamander *(Ambystoma taylori)*, a Critically Endangered (CR) microendemic species found exclusively in Lake Alchichica, Mexico.

Conservation efforts are being carried out through a project led by Africam Safari, with strong community engagement in culturally significant areas.

Finally, a project led by the National Zoo in Santiago, Chile, focuses on scientific data collection from more than 100 nesting sites used by three threatened flamingo species across Argentina, Chile, Bolivia and Peru.

The project emphasises health and biosecurity, including research on diseases affecting wild flamingo populations and benefits from collaboration through the Association of Zoos & Aquariums (AZA) Saving Animals From Extinction (SAFE) and Zoo Conservation and Outreach Group (ZCOG) programmes.

As ALPZA continues to strengthen its certification and accreditation frameworks, and as more institutions commit to conservation action, Latin American zoos and aquariums are increasingly positioning themselves as key partners in regional and global biodiversity conservation efforts.

GET YOUR PLASTIC POLLUTION SOLUTIONS DOWN TO A (CITIZEN) SCIENCE

Kelly Thorvalson, Senior Manager of Conservation Programs at the *South Carolina Aquarium*

From sea turtles passing plastic to legislators passing acts promoting conservation, I have witnessed just how much citizen science can invoke actionable change. The equation is simple, but the work takes commitment. When a conservation organisation builds trust with members of their community, they gain a unique responsibility to lead the charge toward solutions that protect our environment. When an organisation and a community work in tandem to create these solutions, change can – and does – happen.

Before stepping into my role as Senior Manager of Conservation Programs at the South Carolina Aquarium, I spent 14 years managing our Sea Turtle Care Center™. While working with sick and injured animals, I saw a wide range of trauma caused by several different factors – boat strikes, predator attacks and even extreme cold. Over time, though, one human-caused threat began to stand out to me more than any other. Year after year, I saw the same problem affecting many of our sea turtle patients with increasing frequency: plastic pollution.

As roadways and waterways in the state filled with more litter each year, we documented increased plastic ingestion in our sea turtle patients. Some of these patients passed more than 100 pieces of plastic during their rehabilitation with us. We committed to educate our visitors about the profound and devastating consequences plastic has on these threatened and endangered animals.

As we began weaving education about plastic pollution's impact on the natural world into our programmes, I felt a shift happening. What started as education became influence. Communities in our region – and then across the state – looked to the Aquarium as a trusted, non-partisan scientific voice. With that trust came the responsibility to do more than inform. It was time to work beyond our walls to mitigate the growing tide of plastic pollution rather than simply bear witness to it.

2017 was a catalyst year in our conservation efforts. In collaboration with [illegible] Institute and the Lonely Whale Foundation, we hosted a global Breaking Down Plastic summit with high expectations for speakers and participants, the likes of which included acclaimed scientists and researchers, influential community leaders, expert conservation partners and even celebrity environmental advocates. Our ethos: Talk about the issue, but make this moment about solutions.

Volunteers collecting litter from downtown Charleston, SC, USA © *South Carolina Aquarium*

We had the knowledge. We had the connections. And we had the passion. Now, we needed to continue the momentum. Real change couldn't just happen within our walls; it had to live out in the community. Here is where our citizen science philosophy emerged: Let's empower others not just to take part in short-term actions like litter sweeps, but to equip and support them as meaningful contributors to long-term, solutions-driven change.

Working in partnership with MDI Biological Laboratory and utilising the Anecdata citizen science platform, we introduced the South Carolina Aquarium Citizen Science app on both iOS and Android platforms. In addition to projects collecting data on sustainable seafood, sea level rise and flooding, we launched our farthest-reaching project, the Litter Journal – the first open-source litter tracker of its kind.

Whether picking up debris during their daily routine or taking part in organised litter sweeps, citizen scientists capture real-time data by filling out a digital or downloadable paper data sheet. The data includes not only the number of debris items, but the type and location, unlocking additional layers of insight into our most dire sources of pollution. These observations empower users to inform local, state and national government leaders of concrete problems with evidentiary support. The ability to crowdsource this data, down to the exact type of debris collected, puts us on a path to influence actionable change.

The idea of tackling environmental issues as an individual or small group can seem overwhelming, so it's critical to position actions like data collection as simple, yet impactful. We found that providing easy-to-use tools combined with continued education on how to use them empowered people to take that first step into action. Citizen science – and the use of tools like the Litter Journal – became woven into our messaging. And it worked. We now have proof that litter data makes a difference.

Data from citizen scientists directly supported the passing of 14 of the 19 current single-use plastic bans, two beach smoking bans and a balloon release ban, all within South Carolina. Data-driven conversations and legislation have impacted South Carolina business models, with an increased number making commitments to reducing or eliminating single-use plastic in their operations. One of our most meaningful accomplishments was bringing data to the South Carolina State House during debates over 'ban on bans' legislation, which sought to prevent local governments from restricting single-use plastic. By sharing testimonies from conservation partners and crowdsourced evidence, we showed why communities need the flexibility to address plastic pollution – ultimately halting legislation that could have had catastrophic long-term consequences.

14 of 19
Current single-use plastic bans passed

65
teamed up partners

100
group litter sweeps

3,600
engaged community members

Aquarium employee uploading to the Litter Journal © *South Carolina Aquarium*

Bucket of litter removed during sweep © *South Carolina Aquarium*

Empowering citizens to participate in environmental data collection is just the start. We sustain and continue to grow our movement of citizen science by participating in the work – at every level – ourselves. Aquarium staff, volunteers and corporate partners join litter sweeps across the state dozens of times per year, as well as present to community organisations at outreach events. When you join passionate people with a collective goal for good, your community ties grow even deeper. In 2025 alone, we teamed up with 65 partners in more than 100 group litter sweeps with data collection that engaged more than 3,600 community members. Last year, we also celebrated the incredible milestone of 4 million pieces of debris logged into the Litter Journal since its inception.

As our network of citizen scientists grows, we cannot forget to keep up with the fast pace of the world and the constant influx of new technology. We continue to work with the Anecdata platform on improvements to the project and app, so users have a more streamlined, user-friendly experience. Sustained data collection is imperative to not only support new solutions to plastic pollution, but to track the effectiveness of the solutions enacted throughout the years.

The idea of fostering a citizen science movement in your community may seem challenging, but it can happen one sweep at a time. And you don't have to reinvent the wheel – we've already got the ball rolling. Anyone can be part of the solution through the Litter Journal. Join us in the commitment to collect and log litter debris and empower your audience to participate as citizen scientists. The more individuals and organisations involved in the movement, the further our collective impact will reach.

Aquarium staff addressing crowd at a litter sweep © *South Carolina Aquarium*

QUESTIONS

Which species appears on the cover of the updated 2025 WAZA Animal Welfare Strategy?

Which animal traditionally features on the WAZA Heini Hediger Award trophy – WAZA's highest recognition for individual professional excellence?

What is the name of the new habitat inaugurated at Cali Zoo shortly before the most recent WAZA Annual Conference in Cali, Colombia?

A light-hearted one: What does a bee do in a gym?

Where is the WAZA Executive Office located?

Which animals are represented in the WAZA logo mark?

How many active Memoranda of Understanding (MoUs) does WAZA currently maintain?

ANSWERS

Pallas's cat *(Otocolobus manul)*

Rhinoceros *(Rhinocerotidae)*

"Fantastic Asia", a 4,400 m^2 habitat featuring Asian species

Zuuuum-ba

Barcelona, Spain

An elephant, an eagle and a fish

Five–with CITES, IUCN SSC, RSPO, IZE and Wild Welfare

ANNOUNCING THE WAZA COMMITTEES 2026–2027

WAZA is pleased to announce the composition of its Committees for the 2026–2027 term, bringing together more than one hundred professionals from across the global zoo and aquarium community.

Rooted in leadership, expertise and global collaboration, WAZA's Committees play a central role in guiding the Association's strategic priorities, strengthening partnerships and advancing collective impact worldwide. Over the next two years, members will contribute their knowledge and experience to support WAZA's work across conservation, animal welfare, sustainability, communications, membership and governance. We are delighted to continue working with those renewing their commitment for this term and warmly welcome colleagues joining a WAZA Committee for the first time.

The strong level of interest in this cycle reflects the dedication and engagement of our global membership. Together, we look forward to strengthening WAZA's global leadership and advancing our shared mission over the coming two years. The full list of Committee members for 2026–2027 is presented below.

WAZA Standing Committees

Committee for Population Management (CPM)

WAZA CPM promotes global cooperation among Regional and National Associations for effective population management in zoos and aquariums. They also support capacity building, host and plan the Joint TAG Chairs Meeting, and enhance conservation impact through strategic alliances.

Dolf DeJong	Chair & Voting member	The Toronto Zoo
Raymond Van Der Meer	Vice-Chair & Voting member	European Association of Zoos and Aquaria (EAZA)
Candice Dorsey	Vice-Chair & Voting member	Association of Zoos and Aquariums (AZA)
James Reyes Biggs	Vice-Chair & Voting member	Zoo and Aquarium Association Australasia (ZAA)
Christian Olaciregui	Voting member	Latin American Association of Zoos and Aquariums (ALPZA)
Tracy Rehse	Voting member	African Association for Wildlife in Human Care (AAWHC)
Kazutoshi Takami	Voting member	Japanese Association of Zoos & Aquariums (JAZA)
Wendy Chua	Voting member	Southeast Asian Association for Zoos and Aquariums (SEAZA)
Katelyn Mucha	Participating member	Species360
Kristine Schad Eebes	Corresponding member	Association of Zoos and Aquariums (AZA)
Kumiko Hara	Corresponding member	Japanese Association of Zoos & Aquariums (JAZA)
Alexandra Guerra	Corresponding member	Latin American Association of Zoos and Aquariums (ALPZA)
Megan Brown	Corresponding member	Association of Zoos and Aquariums (AZA)
Laurie Bingaman Lackey	Corresponding member	Advisor
William Van Lint	Corresponding member	European Association of Zoos and Aquaria (EAZA)
John Andrews	Corresponding member	Association of Zoos and Aquariums (AZA)
Elmar Fienieg	Corresponding member	European Association of Zoos and Aquaria (EAZA)
Kristin Leus	Observer	CPSG Europe
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Ethics and Animal Welfare (EAWC)

The Ethics and Animal Welfare Committee (EAWC) advises the WAZA Council on best practices in animal welfare and ethical conduct. The Committee promotes member compliance with the WAZA Code of Ethics, the WAZA 2023 Animal Welfare Goal, and the WAZA Animal Welfare Strategy. It works collaboratively with global partners to enhance welfare standards, support continuous learning, and strengthen the community's leadership in promoting positive animal welfare across zoos and aquariums worldwide.

Sally Sherwen	Chair	Melbourne Zoo
Lance Miller	Vice-chair	Brookfield Zoo Chicago
April Adams	Member	European Association of Zoos and Aquaria (EAZA)
Candice Dorsey	Member	Association of Zoos and Aquariums (AZA)
Catalina Rodríguez	Member	Fundación Parque Jaime Duque
Claudia Tay	Member	Singapore Oceanarium
Dave Wehdeking	Member	Fundación Zoológica de Cali
Dave Powell	Member	Saint Louis Zoo
Grace Fuller	Member	Detroit Zoological Society
Jeff Ettling	Member	Jacksonville Zoo and Botanical Gardens
Justine Partoon	Member	Zoo and Aquarium Association Australasia (ZAA)
Kevin Buley	Member	Auckland Zoo
Malcolm Fitzpatrick	Member	Zoological Society of London (London Zoo & Whipsnade Zoo)
Nina Trontti	Member	Korkeasaari Zoo
Timothy Van Loan	Member	The Living Desert Zoo & Gardens
Yumi Yamanashi	Member	Kyoto City Zoo
Simon Marsh	Observer	Wild Welfare
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Finance

The Finance Committee ensures WAZA's long-term financial health and stability. It monitors operational revenues, expenses, accounts, and potential investments; reviews financial risks; and provides strategic financial advice to the Council. The Committee is also responsible for initiating and overseeing the annual audit process by selecting an appropriate, qualified audit entity. Through this governance role, the Committee safeguards WAZA's financial integrity and supports transparent, responsible management of the Association's resources.

Lisa Peterson	Chair	Houston Zoo
Myfanwy Griffith	Member	European Association of Zoos and Aquaria (EAZA)
Jimmy Chow	Member	Ocean Park Corporation
Rachel Haydon	Member	Orana Wildlife Park
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Membership

The Membership Committee supports the growth, value, and diversity of WAZA's global membership. It regularly reviews membership applications, strengthens the application process, and advances membership retention and engagement in line with WAZA's strategic priorities.

Through its work, the Committee helps to ensure that the WAZA community remains strong, representative, and aligned with the highest standards of professionalism.

Nicola Craddock	Chair	Zoo and Aquarium Association Australasia (ZAA)
Ahmed Al Harasi	Member	Al Ain Zoo
Alexandra Guerra	Member	Latin American Zoo & Aquarium Association (ALPZA)
Bonnie Mendoza	Member	Arizona Center for Nature Conservation / Phoenix Zoo
Eric Tsao	Member	Taipei Zoo
Jamie Christon	Member	Chester Zoo
Kevin Mills	Member	South Carolina Aquarium
Maria Clara Domínguez	Member	Fundación Zoológica de Cali
Pierre-Yves Bureau	Member	Paris Zoo (Parc zoologique de Paris – Muséum national d'Histoire naturelle)
Thomas Koelpin	Member	Wilhelma Zoological and Botanical Garden Stuttgart
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Nominating

Chair: Karen Fifield, Te Nukuao Wellington Zoo

The WAZA Nominations Committee has the responsibility to seek candidates for Council positions and verify their qualifications. For its work the committee has to liaise with regional associations, respect the WAZA demographics and coordinate with WAZA Council.

Note: The Nominating Committee only becomes active during council election year (next one will be in 2027).

The strong level of interest in this cycle reflects the dedication and engagement of our global membership. Together, we look forward to strengthening WAZA's global leadership and advancing our shared mission over the coming two years.

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WAZA Non-Standing Committees

Associations

The Associations Committee is responsible for the collegial dissemination of WAZA information to regional and national associations who are members of WAZA, and from those Associations to WAZA Council.

Craig Hoover	Chair	Association of Zoos and Aquariums (AZA)
Tina Maisonneuve	Member	Canada's Accredited Zoos and Aquariums (CAZA)
Volker Homes	Member	Verband der Zoologischen Gaerten (VdZ, Association of Zoological Gardens)
Tracy Rehse	Member	African Association for Wildlife in Human Care (AAWHC)
Molly Gezella-Baranczyk	Member	American Association of Zoo Veterinarians (AAZV)
Mara Marques	Member	Association of Zoos and Aquariums of Brazil (AZAB)
Jo Judge	Member	British & Irish Association of Zoos & Aquariums (BIAZA)
Henrik Harold	Member	Danish Zoological Gardens & Aquaria (DAZA)
Myfanwy Griffith	Member	European Association of Zoos and Aquaria (EAZA)
Cécile Erny	Member	French Association of Zoological Parks (AFdPZ)
Marie-Christine Kuypers	Member	German Society of Animal Parks (DTG)
Julia Maltzan	Member	German Wildlife Parks Association (DWV)
Beatriz Sainz	Member	Iberian Association of Zoos & Aquaria (AIZA)
Peter Van Der Schans	Member	International Association of Amusement Parks and Attractions (IAAPA)
Melinda Schlegel	Member	International Congress of Zookeepers (ICZ)
Sarah Thomas	Member	International Zoo Educators Association (IZE)
Cesare Avisani	Member	Italian Union for Zoos and Aquariums (UIZA)
Kumiko Hara	Member	Japanese Association of Zoos & Aquariums (JAZA)
Alexandra Guerra	Member	Latin American Association of Zoological Parks and Aquariums (ALPZA)
Kumar Pillai	Member	Southeast Asian Zoos and Aquariums Association (SEAZA)
Sandra Wilke	Member	Swedish Association of Zoos and Aquariums (SAZA)
David Nejedlo	Member	Union of Czech and Slovak Zoos (UCSZoos)
Nicola Craddock	Member	Zoo and Aquarium Association Australasia (ZAA)
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Red-eyed Tree Frogs *(Agalychnis callidryas)* © *Freepik.com*

Aquariums

The Aquariums Committee serves as a global forum for leaders from the aquarium community to address community-wide issues, share expertise, and collaborate on strategic priorities. The Committee focuses on advancing professional standards, developing community guidance, and strengthening the role of aquariums within WAZA. By fostering dialogue and cooperation, it supports excellence in aquarium operations, education, research, and conservation.

Kevin Mills	Chair	South Carolina Aquarium
Martin Böye	Member	Loro Parque
Pablo Chavez	Member	Ripley's Aquariums
Arun Idoe	Member	Royal Burgers' Zoo
Robert Yordi	Member	SeaWorld Yas Island, Abu Dhabi
Grant Abel	Member	Singapore Oceanarium
Lawrence (Larry) Oellermann	Member	South African Association for Marine Biological Research (uShaka Sea World)
Judy Mann	Member	Two Oceans Aquarium
Clint Wright	Member	Vancouver Aquarium
Ahmad Nizam Zainudin	Member	Zoo Negara
Laura Simmons	Member	Cairns Marine
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Communications

The Communications Committee addresses the communication challenges faced by the global zoo and aquarium community and supports WAZA members in communicating effectively with diverse audiences. Guided by WAZA's strategic priorities, the Committee develops tools, resources, and approaches to strengthen public engagement, enhance member communication capacity, and maximise the impact of collective messaging across the community.

Sanna Hellström	Chair	Korkeasaari Zoo
Andrew Hall	Member	British & Irish Association of Zoos & Aquariums (BIAZA)
Cécile Erny	Member	Association Française des Parcs Zoologiques (AFdPZ)
Danielle Henry	Member	Perth Zoo
Gareth Siddorn	Member	Chester Zoo
Kanako Tomisawa	Member	International Zoo Educators Association (IZE)
Kumar Pillai	Member	Southeast Asian Association for Zoos and Aquariums (SEAZA)
Laura Minns	Member	Taronga Conservation Society Australia
Louise Gordon	Member	Johannesburg City Parks and Zoo (Johannesburg Zoo)
Tina Maisonneuve	Member	Canada's Accredited Zoos and Aquariums (CAZA)
Melissa Correa	Member	Parque das Aves
Nicola Craddock	Member	Zoo and Aquarium Association Australasia (ZAA)
Ryan Michalesko	Member	International Crane Foundation
Sarah Fedele	Member	Association of Zoos and Aquariums (AZA)
Shawn Dixon	Member	San Diego Zoo Wildlife Alliance
Tomasz Rusek	Member	European Association of Zoos and Aquaria (EAZA)
Helen Lockhart	Member	Two Oceans Aquarium
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Conservation

The Conservation Committee works to advance the role of WAZA and its members in global biodiversity conservation. The Committee develops internal conservation goals and guidelines, strengthens WAZA's strategic partnerships, and provides leadership on community-wide conservation initiatives. Key priorities for the upcoming term include developing and implementing the WAZA 2030 Conservation Goal, reviewing the WAZA Conservation Strategy, and advancing recommendations on how WAZA members can maximise conservation impact locally and globally.

Sonja Luz	Chair	Mandai Nature
Danny De Man	Vice-chair	European Association of Zoos and Aquaria (EAZA)
Amy Chabot	Member	Canada's Accredited Zoos and Aquariums (CAZA)
Andrew Mooney	Member	Dublin Zoo
Elizabeth (Lisa) Kelley	Member	Saint Louis Zoo
Fiona Sach	Member	Zoological Society of London (London Zoo & Whipsnade Zoo)
Georgia Garrard	Member	Melbourne Zoo
Gianne Montelibano	Member	The Green Planet
Grainne McCabe	Member	Wilder Institute / Calgary Zoo
James Reyes Biggs	Member	Canada's Accredited Zoos and Aquariums (CAZA)
Jason Fischer	Member	Disney's Animals, Science and Environment
Jens Ove Heckel	Member	Zoo Landau
Ken Nakamura	Member	Ueno Zoological Gardens/Japanese Association of Zoos & Aquariums (JAZA)
Mike Jordan	Member	Loro Parque
Nadine Lamberski	Member	San Diego Zoo Wildlife Alliance
Robert Arango L	Member	Fundación Zoológica de Cali
Sara Stevens	Member	Al Ain Zoo
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Environmental Sustainability

The Environmental Sustainability Committee supports WAZA members in strengthening their contribution to environmental sustainability and reinforcing the role of zoos and aquariums as conservation organisations. The Committee develops and consolidates practical tools, guidance, and resources to help members reduce their environmental footprint and implement effective sustainability practices. Through strategic collaboration with partners, it works to amplify the collective environmental impact of the global zoo and aquarium community.

Simon Dowell	Chair	Chester Zoo
Helen Lockhart	Vice-chair	Two Oceans Aquarium
Amna Alotaiba	Member	Al Ain Zoo
Andrew Fischer	Member	SSA Group
Belinda Fairbrother	Member	Taronga Conservation Society Australia
Catherine Barton	Member	Chester Zoo
Claudine Gibson	Member	Auckland Zoo
Daniel Lawse	Member	Verdis Group
Debborah Luke	Member	The Florida Aquarium
Julia Hanuliakova	Member	Zoo Liberec
Kim McIntyre	Member	Monterey Bay Aquarium
Maria Clara Domínguez	Member	Fundación Zoológica de Cali
Nicole Chaney	Member	Cheyenne Mountain Zoo
Roger Sweeney	Member	Woodland Park Zoo
Rohaya Saharom	Member	Mandai Wildlife Group
Cristal Torres DeHerrera	Member	Denver Zoo Conservation Alliance
Martín Zordan	Ex Officio	World Association of Zoos and Aquariums (WAZA)
David Field	Ex Officio	WAZA President

Opel Zoo Team celebrating Reverse the Red Day © *Opel Zoo*

REVERSE THE RED DAY SHOWCASES ZOOS AND AQUARIUMS' CREATIVITY AND COMMITMENT TO SPECIES RECOVERY

Megan Joyce, *Outreach and Engagement Coordinator at Reverse the Red*

For four years, conservation organisations around the world come together for Reverse the Red Day, a global celebration highlighting the determination, innovation, optimism, and collaboration driving species recovery. On 7 February, the celebration shone a spotlight on the conservation community's ability to inspire hope while taking measurable action to restore biodiversity.

Reverse the Red Day is designed as more than a moment of recognition — it is a catalyst for engagement. The annual event brings together zoos, aquariums, NGOs, scientists, youth leaders, governments, and more to share success stories, amplify progress, and strengthen the network working to reverse species decline. By infusing optimism into conservation storytelling, the initiative encourages continued growth in engagement with the global Reverse the Red movement and reinforces belief in the impact of collective action.

The 2026 celebration demonstrated just how powerful that collective effort can be, with WAZA members showing creativity in their events and reaffirming commitments to wild population recovery, helping to amplify the important role that zoos and aquariums play in biodiversity conservation. Reverse the Red set ambitious targets across species pledges, communications partnerships, media reach, and community engagement and thanks to WAZA members, we exceeded these goals.

Cango Wildlife Ranch on Reverse the Red Day
© *Cango Wildlife Ranch*

Events on the ground added to the momentum. Reverse the Red Day encourages organisations to host satellite events that highlight local conservation successes and community engagement, and 41 registered events were held worldwide, ranging from educational programmes to public celebrations of species recovery achievements. Events organised by WAZA members included:

- At the Johannesburg Zoo, a new mural depicting species across threat categories was unveiled, a selfie competition took place, and the weekend capped off with a Zoo Trot.
- Under the theme "Reversing Endangered Species: Taiwan in Action," the Taipei Zoo collaborated with numerous zoo and aquarium partners across Taiwan to share Taiwan's story in conserving endangered species with the public.
- Alpenzoo Innsbruck hosted an information stand with strong engagement and interest from families and children.
- Fundación Temaikèn hosted an open, experiential public event in celebration of both World Wetlands Day and Reverse the Red Day, exploring the vital role wetlands play in conserving biodiversity and supporting the recovery of threatened species in Argentina.
- At Oceanário de Lisboa, a closed lecture for staff focused on how aquariums contribute to global conservation efforts and how Oceanário de Lisboa bridges *in situ* and *ex situ* conservation.
- Zoo Praha planned a full day of special feedings and meetings highlighting species that benefit from conservation efforts.
- Emirates Park Zoo and Resort organised a community beach clean-up at Al Sadr Beach and held awareness and pledge stations at the zoo.

Engagement across the conservation sector for this year's fourth edition of Reverse the Red Day surpassed expectations. The campaign involved at least **392 organisations** from **52 countries**, highlighting the growing global reach of the initiative. Zoos and aquariums played a particularly visible role, using creative storytelling, digital campaigns, and in-person activities to connect their audiences with species recovery efforts with at least **165 zoos and aquariums** participating in the celebration.

Media coverage further amplified the message that conservation action works. The campaign produced at least **70 news articles** highlighting the work of institutions and partners worldwide. These stories showcased real-world examples of recovery success and collaboration thanks to WAZA member institutions such as:

- The recovery of the greater Bermuda snail, a project supported by Chester Zoo
- A new Species Pledge for polar bears made by the Brookfield Zoo Chicago
- First captive-bred Mallee Emu-wrens released into the wild by Zoos South Australia
- Two Oceans Aquarium celebrated the downlisting of green sea turtles
- A new Species Pledge for the Vancouver Island marmot made by Toronto Zoo, Calgary Zoo/Wilder Institute, and Marmot Recovery Foundation
- News on positive movement for orangutans shared by Schönbrunn Zoo
- The Zoological Society of London (ZSL) is leading an active recovery project to reintroduce three species of Mexican pupfish.

Perhaps the most striking outcome was the surge in new Species Pledges — commitments made by organisations to take concrete actions supporting species recovery. With the launch of the new Species Pledge platform, the conservation community made an extraordinary **1,743 new pledges** in the first two months of the year, reflecting strong momentum across institutions and partners worldwide. These pledges represent tangible conservation actions, from recovery planning to translocations to genetic rescue, demonstrating how coordinated commitments can accelerate progress for threatened species. These new pledges, along with all preexisting pledges are also eligible to apply for the Reverse the Red Accelerator Award, with applications open for the month of March.

Beyond the numbers, Reverse the Red Day continues to serve several important purposes in biodiversity conservation. It increases engagement within the conservation community, highlights successful species recovery strategies, expands storytelling about biodiversity recovery, and raises awareness of Reverse the Red. The day allows zoos and aquariums to amplify their important contributions to species conservation, engaging visitors, members, students, and volunteers in the success made possible by the work of the institution and the work of the collective.

Just as importantly, Reverse the Red Day helps to inspire new Species Pledges, new engagement in strategic thinking for recovery, and conservation professionals across sectors — ensuring that celebration translates into action.

As zoos, aquariums, and all conservation partners look ahead, Reverse the Red Day stands as a reminder that creativity, collaboration, and commitment can inspire real change. By sharing stories of success and strengthening partnerships, the global conservation community continues to prove that reversing species decline is not only possible — it is already underway.

Cango Wildlife Ranch on Reverse the Red Day
© Cango Wildlife Ranch

Johannesburg Zoo on Reverse the Red Day
© Johannesburg Zoo

Group photo at CITES COP20 in Samarkand © *WAZA*

CITES COP20 OUTCOMES: ADVANCING WILDLIFE TRADE POLICY FOR GLOBAL CONSERVATION

By Loïs Lelanchon, *Head of Partnerships and Advocacy, WAZA*

The twentieth Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES CoP20) marked a historic moment for international wildlife conservation. The meeting took place in Samarkand, Uzbekistan, from late November to early December 2025. It marked the first occasion in the Convention's fifty years when countries gathered in Central Asia. The significance of this milestone extended far beyond geography: with a record-breaking 157 Parties in attendance and more than 350 decisions reaching consensus, CoP20 demonstrated the global community's unwavering commitment to protecting threatened species through diplomacy and coordinated action.

WAZA's delegation, joined by representatives from several member associations and institutions, brought the collective expertise of the zoo and aquarium community to these critical discussions. Our participation ensured that conservation policy decisions were informed by the scientific knowledge, operational experience and ethical frameworks that guide our community's work with vulnerable wildlife populations. The outcomes achieved will directly influence how our institutions manage international animal transfers, conduct cooperative *ex situ* breeding initiatives and support conservation objectives worldwide.

Elevating Protection: The Appendix I Additions

CoP20's most consequential decisions involved transferring or including numerous species to Appendix I, the Convention's highest level of protection. This designation applies to species facing the most severe extinction threats, essentially prohibiting commercial international trade in wild-caught specimens while permitting exceptional circumstances such as legitimate scientific purposes.

The taxonomic diversity of species added to Appendix I during CoP20 reflected the breadth of current conservation challenges. Mammalian species gaining this elevated status included the okapi, whose populations face mounting pressures from habitat destruction and exploitation, and the Golden-bellied mangabey, now recognised as requiring urgent intervention. These decisions acknowledge the accelerating threats confronting many terrestrial mammals.

Avian conservation received substantial attention, with multiple species, including the sub-Saharan African scavengers – White-backed and Rüppell's Vultures, secured under maximum protection following rapid population declines. The Great-billed Seed Finch was also added to Appendix I, highlighting the urgent need to address threats facing songbirds.

Reptiles gained particular attention at CoP20. Species such as the Hispaniolan giant galliwasp, the Galápagos marine iguana, all species of Galápagos Land Iguanas, and the Bale Mountains and Ethiopian Mountain Adders were included due to their vulnerability. Home's Hinged-backed Tortoise was also added, a much-needed measure given pressures from illegal trade.

Marine biodiversity concerns drove several critical Appendix I transfers. The oceanic whitetip shark, whale shark and all Mobulidae rays, species iconic to ocean ecosystems yet impacted by unsustainable fishing practices, now receive the Convention's strongest trade regulation. These measures represent essential steps toward halting population declines and preserving marine ecosystems.

Appendix II: Preventing Future Threats

While Appendix I addresses species already at the brink, Appendix II listings serve a preventive function, regulating trade before populations reach crisis levels. CoP20's Appendix II decisions balanced conservation needs with opportunities for sustainable, well-regulated use.

Several mammal species were listed in Appendix II, including the Dorcas gazelle and Striped hyaena, both experiencing pressure from various human activities. The inclusion of Linnaeus's and Hoffmann's Two-toed Sloths acknowledged rising demand for these animals in live trade, a trend requiring careful monitoring and management.

Bird protections expanded significantly through Appendix II additions. African hornbill species, increasingly targeted for illegal capture, gained regulatory oversight alongside four Sporophila songbird species threatened by the pet trade. These listings recognise that uncontrolled commercial exploitation can rapidly undermine wild populations.

Reptilian and amphibian species also benefited from new protections. The Mount Elliot leaf-tailed gecko and ringed thin-tail Gecko were listed in Appendix II, while four Pelophylax frog species gained similar protection, advancing amphibian conservation efforts.

Marine species featured among the Appendix II additions, with the school shark and various Mustelus and Centrophoridae shark species now subject to trade regulation. The golden sandfish, a sea cucumber species heavily exploited for seafood markets, also gained protection.

Particularly significant were the zero-quota designations for wild-caught Glaucostegus and Rhinidae wedgefishes, effectively ending commercial trade in wild specimens while maintaining the protective framework. Even invertebrates found representation, with the Rose hair tarantula being added to Appendix II.

Removal from CITES Appendices: Successes and Losses

CoP20 also revisited species whose conservation status have evolved. The bontebok antelope's removal from Appendix II stands as a rare testament to conservation success, the result of decades of dedicated population management and habitat protection. This achievement demonstrates that recovery is possible when interventions are sustained and effective. The Guadalupe fur seal's downlisting from Appendix I to Appendix II similarly reflects positive population trends, though continued regulatory oversight ensures that recovery gains are not reversed. The Conference of the Parties also recognised failure. The Caribbean monk seal's deletion from Appendix I formalised the species' extinction, last confirmed alive in 1952. This loss serves as a stark reminder of what the consequences of conservation action arriving too late or not at all.

Conservation Matters and Implications for Zoos and Aquariums

Beyond species listings, delegates examined enforcement mechanisms and explored the connections between wildlife trade and community livelihoods. They also discussed the involvement of youth through the CITES Global Youth Network and addressed complex questions surrounding endemic species protection. Emerging issues such as the role of biotechnology in specimen production also received careful consideration, reflecting how rapidly the conservation landscape continues to evolve. Taxonomic and conservation discussions ranged across the animal kingdom, with focused attention on Asian big cats, great apes, amphibian populations, songbird species and marine ornamental fishes.

CoP20 also produced numerous decisions affecting institutional operations. These include decisions on live animal transport notably about the accessibility to the IATA Live Animals Regulations, protocols for managing confiscated wildlife and the rapid movement of wildlife diagnostic samples. Of particular importance to our community was the resolution regarding purpose-of-transaction code Z. After thorough deliberation, Parties confirmed that the code will remain as defined, with only minor adjustments possible, if needed, in relation to the definition of code B (breeding). This clarity provides welcome stability for institutions planning international transfers and cooperative conservation programmes. These technical decisions directly impact how zoos and aquariums collaborate across borders, implement conservation breeding initiatives and assist governmental authorities responding to wildlife trafficking cases.

The regulatory decisions emerging from CoP20 will shape institutional operations for years to come and WAZA's active engagement at CoP20 underscores the zoo and aquarium community's essential contributions to global species conservation. Our institutions advance wildlife protection through scientific research, *ex situ* conservation programmes, field-based partnerships and efforts combating illegal wildlife trafficking. By sharing expertise and engaging constructively with governmental delegations, we help ensure that international policies reflect the practical realities of species care, population management, rehabilitation and long-term conservation planning.

As biodiversity loss accelerates worldwide, the regulatory frameworks established at CoP20 will fundamentally influence the environment in which zoos and aquariums pursue their mission: safeguarding wildlife, facilitating species recovery and fostering a sustainable future for all life on Earth.

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IMMERSIVE TECHNOLOGIES FOR CONSERVATION EDUCATION WITHIN ZOOS: CASE STUDIES

Antoine Andrier, *Editorial manager – Educational content writer, Wild Immersion, France*

Abstract

While immersive technologies, including Virtual Reality (VR) and Augmented Reality (AR), have gained popularity in educational institutions with applications in various learning contexts, little is known of their impact within the specific context of zoos.

This article highlights the educational applications of VR 360° films and AR devices in different zoological institutions, including Mandai Wildlife Reserve in Singapore. The participants' interest and engagement in the programme were assessed through data collection (participation, completion rate, capture rate), surveys, and interviews or testimonials.

The results demonstrate that both VR and AR experiences enhance learners' engagement and motivation, proving to be inclusive in terms of age diversity. Notably, VR 360° films enable viewers to develop a better sense of empathy and understanding towards wildlife. These positive outcomes underscore the potential of VR 360° films and AR devices to enhance educational practices in wildlife parks.

With the increasing integration of immersive technologies into zoo educational programmes, evaluating visitors' long-term retention of information would be a significant step forward in assessing the impacts of these technologies on zoo educational practices.

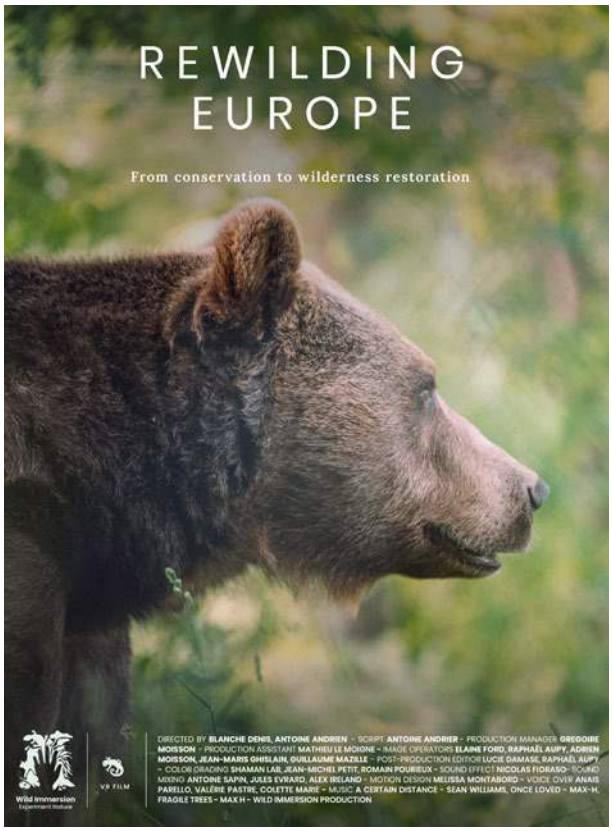
Visitors participating in the AR digital trail in Mandai Wildlife Reserve, Singapore © *Mandai Wildlife Reserve / Wild Immersion*

Introduction

Immersive technologies such as Augmented Reality (AR) and Virtual Reality (VR) have been the focus of increasing academic attention, including their applications in educational contexts (Sue & Prophet, 2018).

Both technologies effectively blur the line between physical and virtual worlds. AR technology overlays digital contents onto the real world through various devices, while VR creates a simulated environment where the viewer is placed thanks to head-mounted displays. 360° videos are a form of VR (also known as real VR) that are not generated by a computer but instead captured from the real world using omnidirectional cameras. It immerses viewers in otherwise inaccessible real environments (Pirker & Dengel, 2021).

Despite their increasing popularity, little is known of their impact within the specific educational context of zoos. This article analyses the uses of both AR and real VR for immersive contents specifically designed to raise environmental awareness and participants' knowledge about nature conservation. We evaluated their impact through data collection, surveys and interviews. Results show various benefits, notably on learners' motivation, interest and empathy towards wildlife, and underscore the potential of VR 360° films and AR devices to enhance educational practices in zoos.



Poster of *Rewilding Europe*, 2022 © *Wild Immersion*

Content

A) Methods

1. Featured immersive contents

a) Real VR (360° video)

Short 360° movies of about 12 min have been showcased in the participating zoos. Each one is narrated in the viewer's native tongue and focuses on various topics related to wildlife and biodiversity: functioning of a given ecosystem, conservation issues in a specific region, or exploration of a particular group of species.

These VR wildlife documentaries include:

- *A Pangolin's Tale*, 2021: a production featuring a fictional young explorer on her way to find a Sunda pangolin *(Manis javanica)*, a species she heard to be endangered. On her way, she will discover the conservation issues in the Oceanian region.
- A series of three 360° episodes featuring reptiles from different habitats, such as the Asian water monitor *(Varanus salvator)*, Burmese python *(Python bivittatus)* or Nile crocodile *(Crocodylus niloticus)*.
- *Rewilding Europe*, 2022 (Figure 1): a documentary exploring the opportunities for ecosystem restoration offered by the comeback of large predators such as wolves *(Canis lupus)* and Eurasian lynxes *(Lynx lynx)* in Europe.

This list is made of the most relevant films for the purpose of this article and should not be considered as exhaustive.

b) AR digital trail
In Mandai Wildlife Reserve in Singapore AR digital trails were implemented in the exhibits providing interactive and educational contents on their visitors' path. This educational game (Figure 2) was part of a temporary exhibitions, the "Festival Wild-erland":

- AR markers (presented as QR codes) are dispatched within the exhibition in key transit areas. By scanning these markers with their smartphone, participants can see a 3D animal model on their screen and interact with it (Figure 3).
- By answering a quiz, they learn more about the species and discover the location of the next marker.
- Participants can access an "inventory" during and after their visit, compiling information on the featured species.

Shaylee (on the left) undergoing the VR experience in India © *Wild Immersion*

2. Data collection

With the help of the participating institutions, we collected various types of data to evaluate the reach and impact of these immersive contents. Across all locations, ticketing data allowed us to measure the reach ratio (or capture rate), i.e., the number of participants to VR or AR experiences divided by total number of visitors in the zoo, thus assessing visitors' interest and engagement towards these technologies when offered to them. Additionally, thanks to data collection through the AR app, we could measure the completion rate, i.e., the number of participants who completed the digital trail. Lastly, participants' feedback and interest for the programme were evaluated through onsite direct interviews after the experience.

B) Results

a) Quantitative
Ticketing data for the real VR experiences across involved locations showed an average visitors capture rate of 12%. In two different institutions in France, respectively 36 and 176 participants answered the online survey after the experience. Results show a clear tendency towards children's attendance (at least 30% of 0 to 14 years old in both cases), with few teenagers and young. Adults (respectively 5,6% and 12,1% of 15 to 25 years old), the rest being made of a majority of accompanying adults. In Mandai Wildlife Reserve, 10.014 visitors participated in the AR digital trail during 47 days, 50% of them answered correctly all the quizzes, effectively completing the trail.

b) Qualitative
Onsite direct interviews after the VR or AR experience showed visitors' clear interest and engagement for the programmes. Real VR was particularly appreciated for the connection it built with wild animals, allowing close observation, while the AR trail proved to be an engaging activity for young visitors to learn about wildlife.

Shaylee, 13 years old, India (Figure 4):
"Everywhere I saw, there was something very realistic. They were crocodiles, snakes I had never been able to see in my life, and it was so realistic."

Thomas, 12 years old, France:
"I really enjoyed the VR experience because we could get close to animals we don't see in our daily lives."

Monica, 42 years old, Mandai Wildlife Reserve, Singapore:
"My son was so excited for the treasure hunt that I had trouble keeping up to see the animals!"

Discussion

The implementation of AR and real VR in the participating zoos resulted in a strong visitor engagement and appreciation for these technologies, highlighting their potential for conveying conservation messages. The capture rates across various locations reflect a consistent interest in the VR experiences, suggesting that when offered, this technology has the potential to effectively attract visitors' attention in zoos and thus enhance the institution's educational programme on conservation issues. The age distribution data suggests that AR and VR technologies are not only effective in captivating the interest of young visitors but also in engaging adult audiences, facilitating a shared educational experience that spans generations.

The feedback interviews underscored the immersive nature of real VR and the interactive engagement facilitated by AR trails. Visitors, especially younger audiences, displayed a clear interest in these technologies, which successfully captured the attention of visitors, providing them with the possibility to observe wildlife up close.

These findings resonate with the conclusions drawn in the comprehensive literature review on. The Potential of 360-Degree Virtual Reality Videos and Real VR for Education (Pirker & Dengel, 2021), confirming the significant impact of immersive technologies on enhancing interest, engagement, and motivation.

Conclusion

The integration of AR and VR technologies within zoos presents a significant opportunity to enhance educational content delivery and visitor engagement. The initial findings from the participating institutions indicate a strong potential for these technologies to engage visitors in conservation education effectively. The immersive nature of VR and the interactive capabilities of AR, as evidenced by the positive visitor feedback and engagement metrics, underscore the value of these technologies in complementing traditional zoo experiences. Further research on participants' long-term knowledge retention would be key to assessing the lasting educational impacts of these technologies on visitors' attitudes towards conservation and behavior change. However, as zoological institutions continue to explore innovative ways to connect with visitors and promote conservation, immersive technologies stand out as powerful tools for enriching the educational landscape and fostering a deeper understanding of and commitment to wildlife conservation.

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Acknowledgements

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HONOURING THE BEST IN GLOBAL ZOO AND AQUARIUM EXCELLENCE

WAZA Congratulates the Recipients of the 2025 WAZA Awards.
Each year, the WAZA Awards honour institutions and individuals who exemplify excellence, leadership and impact across the global zoo and aquarium community. In 2025, we proudly celebrated four outstanding recipients whose work reflects the very best of our collective commitment to conservation and animal welfare.

Animal Welfare AWARD
World Association of Zoos and Aquariums

WAZA Animal Welfare Award

Toronto Zoo (Canada)
Recognised for its holistic, evidence-based approach to animal welfare, integrating innovation, compassion and technology to enhance animal wellbeing.

Conservation AWARD
World Association of Zoos and Aquariums

WAZA Conservation Award

Fundación Temaikèn (Argentina)
Honoured for its long-term conservation of threatened endemic flora within the Osonunu Reserve, demonstrating how plant conservation can drive wider biodiversity protection.

Environmental Sustainability AWARD
World Association of Zoos and Aquariums

WAZA Environmental Sustainability Award

Seattle Aquarium (United States)
Awarded for its transparent, science-based sustainability strategy, including a LEED Gold-certified facility and strong leadership in environmental policy and wildlife protection.

Heini Hediger AWARD
World Association of Zoos and Aquariums

The Heini Hediger Award

Professor Theo B. Pagel (Germany)
WAZA's highest distinction for individual professional excellence, recognising more than three decades of leadership in animal welfare, conservation and education, and his global contributions as WAZA President (2019–2021) and co-founder of Reverse the Red with the IUCN Species Survival Commission.

These awardees embody the vision, professionalism and global collaboration that define the WAZA community. Congratulations!

WAZA WELCOMES NEW MEMBERS

Logo of the African Association for Wildlife in Human Care (AAWHC) © *AAWHC*

Indoor Rainforest © *The Green Planet Dubai*

Brown bears in the natural park of Cabárceno
© *Parque de la Naturaleza de Cabárceno*

WAZA welcomes a new Association Member

African Association for Wildlife in Human Care (AAWHC), South Africa

The African Association for Wildlife in Human Care (AAWHC) represents zoos, aquaria and wildlife facilities across Africa committed to high standards of animal welfare, conservation and public education. Established to strengthen ethical and professional practice on the continent, AAWHC supports accreditation, capacity building and knowledge exchange among its members. By providing a unified African voice within the global zoo and aquarium community, the Association works to advance conservation-focused wildlife care aligned with international standards.

WAZA welcomes two new Institution Members

The Green Planet Dubai, United Arab Emirates

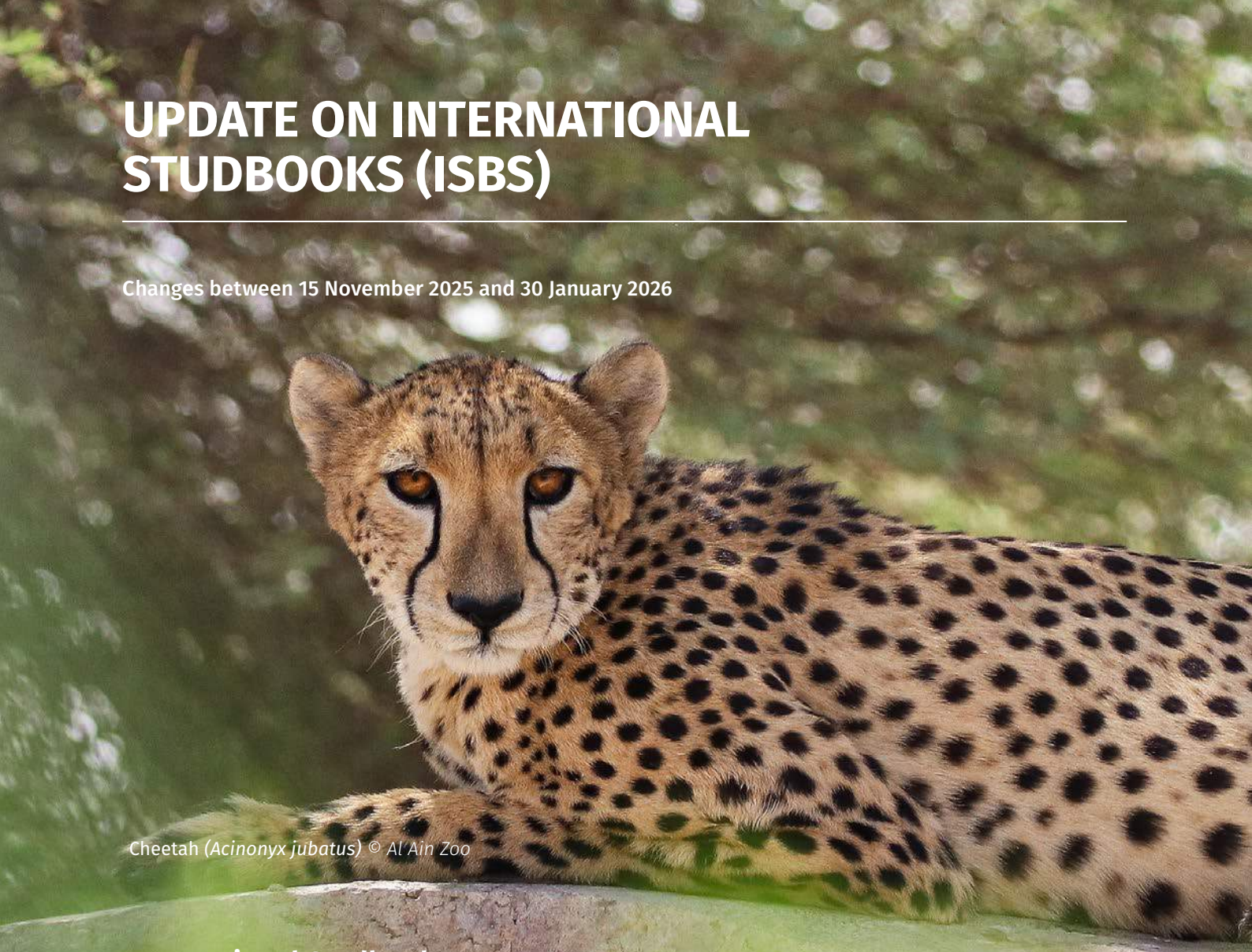
The Green Planet Dubai is the region's only indoor tropical rainforest, offering immersive experiences that connect visitors with rainforest biodiversity and ecosystems. Through close-up animal encounters, innovative exhibit design and inclusive educational programmes, the institution aims to inspire empathy for wildlife and encourage positive conservation action. As a growing conservation hub, The Green Planet Dubai engages the public through research, collaboration and initiatives that promote sustainability and biodiversity awareness.

Parque de la Naturaleza de Cabárceno, Spain

Parque de la Naturaleza de Cabárceno is a large-scale conservation and education project set within a restored former mining landscape in northern Spain. The park offers visitors the opportunity to observe wildlife in expansive natural environments, fostering respect and appreciation for biodiversity. Through research, education programmes and collaboration with the scientific community, Cabárceno seeks to inspire awareness and long-term commitment to the protection of ecosystems and wildlife.

UPDATE ON INTERNATIONAL STUDBOOKS (ISBS)

Changes between 15 November 2025 and 30 January 2026



Cheetah *(Acinonyx jubatus)* © *Al Ain Zoo*

International Studbooks

Published International Studbooks

- **Wattled Crane** *(Bugeranus carunculatus)*, 2024 ed. – Frederick B. C. Beall (Zoo New England)
- **Indochinese sika deer** *(Cervus nippon pseudaxis)*, 2025 ed. – Jan Pluháček (Zoo Olomouc)
- **Greater Bamboo Lemur** *(Prolemur simus)*, 2025 ed. – Delphine Roullet (Cotswold Wildlife Park and Gardens)
- **Somali wild ass** *(Equus africanus somaliensis)*, 2025 ed. – Beatrice Steck (Zoo Basel)
- **Pygmy hippopotamus** *(Choeropsis liberiensis)*, 2025 ed. – Beatrice Steck (Zoo Basel)

ISB Transfers

- **Wattled Crane** *(Bugeranus carunculatus)*, from Frederick B.C. Beall (Zoo New England) to Samantha Grabarz (Zoo New England)
- **Black lemur** *(Eulemur macaco)*, from Richard Brown (Dudley Zoo and Castle) to Jack Williams (Dudley Zoo and Castle)

Vacant International Studbooks

- **Buff-crested bustard** *(Lophotis gindiana)*
- **Aruba Island rattlesnake** *(Crotalus durissus unicolor)*
- **Alaotran gentle lemur** *(Hapalemur alaotrensis)*

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

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 Teresa Abáigar

Teresa Abáigar

Tenured Scientist
Estación Experimental
de Zonas Áridas, CSIC
Saharawi dorcas gazelle
International Studbook keeper
and EEP coordinator

ISB kept and featured:	*Gazella Dorcas neglecta* *VU-(Vulnerable)*
ISB host Organisation:	Estación Experimental de Zonas Áridas-CSIC
Year Started as ISBk:	1990

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

I took on responsibility for the Saharawi dorcas gazelle International Studbook in 1990 (35 years ago).

Since 1971, the Estación Experimental de Zonas Áridas (EEZA, Almeria, Spain) started an *ex situ* conservation programme for four endangered North African ungulates species: the mhorr gazelle *(Nanger dama mhorr)*, the Saharawi dorcas gazelle *(Gazella dorcas neglecta)*, the Cuvier's gazelle *(Gazella cuvieri)* and the Saharan Aoudad *(Ammotragus lervia sahariensis)*. From the beginning, the EEZA managed these populations according to the standards used for endangered species in ISBs, EEPs or SSC programmes of EAZA or AZA. Currently, EEZA staff is responsible for the ISBs and EEPs for these species and coordinate the reintroduction programmes carried out with them. I coordinate the reintroduction programme for the Saharawi dorcas gazelle in Senegal.

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

The ISB for the Saharawi dorcas gazelle is the only one that exists for any subspecies of dorcas gazelle.

There are some groups of Dorcas gazelles in captivity in various zoos around the world whose origin (founders) is scarce and/or unknown, and which are managed outside of an *ex situ* conservation programme rules. Consequently, the value of our ISB is twofold, as it applies not only to a subspecies but also to the species itself.

Although at the species level the threat category for the Dorcas gazelle is 'Vulnerable' throughout its wide range, its status differs between countries; so we find countries where it has disappeared (Senegal, for example), others where it is highly threatened (Mauritania, Tunisia, Morocco), and in others where there still remains some viable populations (Algeria, Chad).

The area of distribution of the Saharawi dorcas gazelle extends from southern Morocco to Mauritania and northern Senegal. In southern Morocco and Mauritania, there are still wild populations that continue to be exploited. In Senegal, it is considered extinct since the 1970s and, as mentioned above, has been reintroduced thanks to the ISB but also the EEP programme.

The ISB for the Saharawi dorcas gazelle is probably one of the oldest among ungulate species ISBs; it includes data from 55 years of well-documented records. This allows us to build robust population analysis models to help in the strategies to preserve the species and subspecies both in captivity as well as for reintroductions.

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

The International Studbook holds important records of data (in quantity and quality terms) which have been and are used to know more about genetic and demographic parameters related with the *ex situ* management of the species, when new captive breeding groups need to be established, and to select the founding individuals for reintroduction. It also provides valuable information on husbandry issues related with behaviour, health, nutrition, reproduction and genetics. Data from the Studbook have contributed to the basis of a number of national and international research projects. Below are some examples of the research that has utilised Saharawi dorcas gazelle Studbook data.

Neglected dorcas gazelles *(Gazella dorcas neglecta)* © *CSIC*

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

The International Studbook compiles the largest genetic and demographic dataset which are essential to select individuals for reintroduction projects. Ensuring the genetic and demographic viability of this reintroduced population will depend largely on the genetic variability selected from the global population managed within the Studbook. Moreover, and as mentioned above, the information contained in studbooks is a source of data and information for better understanding and managing the species, which ultimately determines the basis for its survival. Finally, I believe that the existence of studbooks contributes in some way, albeit indirectly, to the education and awareness of endangered species, as it demonstrates a special dedication and resources to their conservation.

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

International Studbooks will continue to play an essential role in the conservation of endangered and/or extinct species. Despite conservation efforts over the last 20–30 years, numerous species remain threatened and, worse still, the level of threat and risk of extinction is increasing for others. Therefore, studbooks will continue to hold essential information for the preservation of these species.

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ALPZA Annual Conference
19–22 May 2026
Bogotá, Colombia

EAZA Conservation Forum 2026
19–22 May 2026
Taunus, Germany

UCSZOO General Assembly Meeting
20–22 May 2026
Vyškov, Czech Republic

6th Joint TAG Meeting
25–28 May 2026
Taipei

49th AZAB Congress
26–30 May 2026
Campo Grande, Brazil

JUNE

VdZ Annual Meeting
3–6 June 2026
Basel, Switzerland

Sustainable Palm Oil Dialogue (SPOD) 2026
9 June 2026
Chester, United Kingdom

BIAZA Annual Conference
9–11 June 2026
Edinburgh, United Kingdom

WAZA Mid-Year Meeting
17–18 June 2026
Online

JULY

CITES Animals Committee (AC34)
13–23 July 2026
Geneva, Switzerland

3rd Annual Species360 Conservation Science Alliance Research Symposium
29 July 2026
Online Event

Erik Karits © *Pexels*

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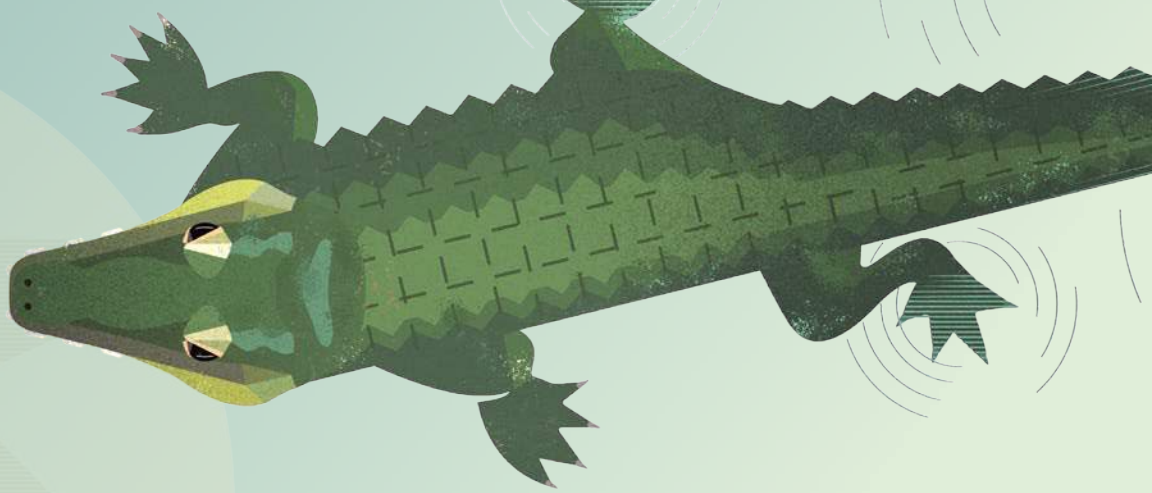

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