



CONTENTS

- LETTER FROM THE CHAIR OF THE BOARD
- MEET WCS PRESIDENT AND CEO MONICA MEDINA 04
- 06 WCS BY THE NUMBERS
- 08 WHERE WCS WORKS
- **SAVING WILDLIFE** 10
- Winning Landmark Protections for Some of the World's Most Threatened Species 12
- 17 Securing New Protections for a Gorilla Stronghold
- Helping Tenasserim Tigers Make a Comeback 18
- Stopping Elephant Poaching 20
- Understanding Competition over Scarce Resources as Glaciers Melt 23
- Safeguarding Whales and Dolphins around the World 24
- 28 **PROTECTING NATURE'S STRONGHOLDS**
- 30 Protecting Indonesia's Forest Strongholds
- 33 Blending Local Knowledge and Conservation Science in Solomon Islands
- 34 Protecting Brazil's High-Integrity Forests and Waters
- 36 Scaling Up Ocean Conservation: Spotlight on Indigenous Peoples and Local Communities
- IBIS Rice: Reaping Benefits for Wildlife and Farmers in Cambodia
- 40 Tapping Nature as a Climate Solution
- 42 Protecting Wildlife and Human Health around the World
- 44 Securing a Conservation Legacy for Hudson Canyon
- **CONNECTING PEOPLE TO NATURE** 46
- 48 Celebrating 125 Years of the Bronx Zoo
- Giving Hope to a Giraffe Calf through Innovative Veterinary Care 55
- Saving Turtles: From the Bronx Zoo to the Field 56
- 59 Protecting Big Cats from the Pet Trade





LETTER FROM THE CHAIR OF THE BOARD

Thanks to your strong support of WCS's mission to save wildlife and wild places, we have impressive results to share in this year's Impact Report—with stories from some of the 50+ countries where we do conservation work around the world, and from our four zoos and aquarium in New York City. We hope that you feel proud of all that you've helped us accomplish.

Highlights include:

- A new feature—WCS By the Numbers—that gives a snapshot of your impact
- Inspiring tales of wildlife recovery and protection: Tigers in Thailand's Tennasserim Stronghold doubled in the last two decades; 90% of the most exploited shark and ray species are now protected from trade, up from just 20%; and elephant strongholds in Mozambique, Nigeria, and Tanzania are at near-zero poaching, with elephant populations stable or increasing at most WCS sites
- Critical gains for climate, biodiversity, and **people:** A 90% decline in deforestation across Indonesia since 2017; a new Indigenous-led marine protected area in Colombia; and an important expansion of Congo's Nouabalé-Ndoki National Park
- A celebration of the Bronx Zoo's 125th anniversary, and its remarkable track record of innovation, animal care, and connecting people with nature

This was also a big year for WCS because we welcomed our new President and CEO, Monica P. Medina, in June 2023. My thanks to Robb Menzi for serving as WCS Interim President and CEO until June, and for resuming his role as WCS Executive Vice President and COO.

Monica has an impressive track record of leadership on biodiversity and the environment throughout a distinguished career spanning the public, private, and non-profit sectors. Among many accomplishments, Monica was instrumental in the Biden Administration's adoption of the 30x30 goal aimed at protecting at least 30% of our planet's land and oceans by 2030. To find out more about Monica, her lifelong passion for protecting nature, and her bold vision for the future, see the interview on the following page.

In partnership with strong WCS supporters like you—and with Monica at the helm—I am excited about what we can accomplish in the coming months and years.

Alejandro Santo Domingo Chair of the Board



MEET WCS PRESIDENT AND CEO MONICA MEDINA

What got you interested in conservation?

My passion for environmental issues comes from my legal background and from important people in my life.

I took a class in law school that focused on environmental laws in the US that have made a huge difference—some enacted more than 50 years ago, like the Clean Air Act, the Clean Water Act, and the Endangered Species Act. They were bold then and remain bold and effective today. That made a big impression on me.

I have my mother to thank for helping me to understand how important zoos and aquariums are for educating people about animals and nature. She taught middle school and used trips to Zoo Atlanta to teach her students about the scientific method and biodiversity.

But I also felt a strong call to protect our natural world because two of my children had asthma when they were little. It made me much more aware of how pollution that you can't even see can really hurt our health. We all know somebody who's been impacted. And for me it really hit home when my daughter couldn't breathe. I realized I needed to do things to make her life better. We need clean air; we need clean water.

What do you think is special about WCS?

I feel fortunate to be leading WCS right now because it is the best organization, bar none, to champion nature at this critical moment, when the stresses on the planet are reaching a crisis point—for biodiversity, for our health, and for climate.

I was Assistant Secretary of State for Oceans, Environment, and Science before joining WCS. So the work WCS does is very much aligned with what I was doing at the State Department. This is a unique organization with both a local and a global footprint, doing important work in New York City and more than 50 countries around the world—places like the Democratic Republic of Congo, Fiji, Colombia, and many more—which gives us an amazing platform to make a difference on a large scale.

Another unique strength is WCS's ability to make connections between that global and local work. I just loved the idea of joining an organization with more than 3.5 million visitors every year to our zoos and aquarium, where we educate a million people a year about wildlife and conservation. There are so many young people who get to experience nature by coming to one of our parks. And practically every person you meet in New York has a memory of one of our zoos or aquarium from their childhood, or their kids' childhood. That is really special.

What are the big challenges facing our planet? What gives you hope for the future?

Right now we're in the critical decade for conserving the world's biodiversity. Our planet is in a very precarious place. It's fragile. And the stresses on the planet's health are increasing.

But I do have hope. I see growing awareness by people all over the world—from all walks of life and all ages—of the importance of our issues. And I believe people want to make the right choices to save this planet, if we show them it's possible.



I also have hope because it's truly amazing how resilient nature is if you give it a fighting chance and put the right protections in place.

And finally, I have hope because of the incredibly talented and dedicated people who work at WCS—and who support WCS. With their passion and ideas and hard work, I know we can make the change that we need in the world. We have a huge task ahead and I am so grateful to be working with this team.

What are your priorities for your first year at WCS—and beyond?

One of the most inspiring moments for me was at the UN Biodiversity meeting in Montreal last year, when countries around the world agreed they would work together to protect at least 30% of the planet by 2030.

That 30x30 commitment is a big deal for nature, and WCS is perfectly positioned to take a leadership role in achieving that goal. We have the world's largest field-based conservation program, covering over half

the planet's biodiversity. We have played a part in creating over 165 protected areas in the last decade—and more than 350 going back to our founding 125 years ago. And not just in faraway places! Right here in our own backyard, WCS has been leading the effort to get the Hudson Canyon, off the coast of New York, declared a National Marine Sanctuary.

WCS also partners with governments around the world, more than 200 Indigenous communities in 39 countries, and several thousand local community organizations—working to figure out ways to balance human needs with the needs of wildlife. Those partnerships are essential. Because one thing we know about conservation is that it can't succeed unless local communities are front and center. And we have a lot to learn too. Indigenous communities have thousands of years of knowledge about what we need to do to be better stewards of our planet. In fact, their lands and waters are some of the best protected all over the world.

4 WCS IMPACT REPORT 2023

MEET WCS PRESIDENT AND CEO MONICA MEDINA 5

WCS BY THE NUMBERS

Thanks to your vital support, WCS has made important gains for wildlife and wild places. We are protecting the landscapes and seascapes where both the conservation value and opportunity for impact are greatest—and inspiring generations of people to care for the planet.



Founded in 1895



Conserves habitat for ~50% of Earth's biodiversity



350+ protected areas WCS helped create since our founding



WCS works in 50+ countries



4,000+ scientists, conservationists, animal experts, and other dedicated staff



400+ peer-reviewed scientific publications each year



205 Indigenous community partners



2,000+ local community partners



Partnering with governments, communities, and others to protect 30% of the planet by 2030



urban wildlife parks in New York City



3.5M visitors to our zoos and aquarium in 2022





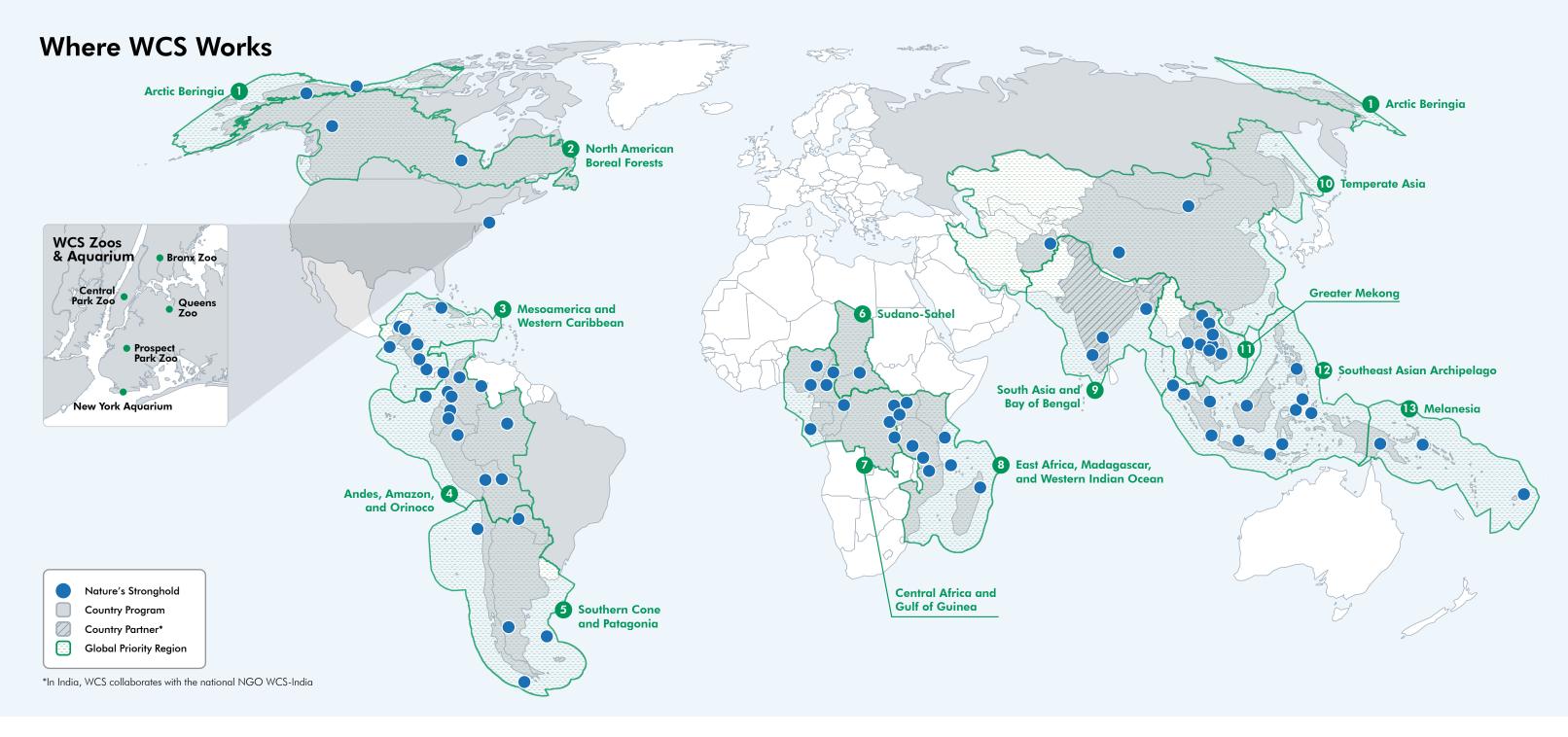
20K +animals at our zoos and aquarium



students, educators, and families reached with science education programs annually



youth employer in the Bronx



Global Priority Regions

Arctic Beringia

Arctic tundra and productive seas in Alaska, western Canada, and northeastern Russia

- 2 North American Boreal Forests
 Boreal forests, mountains, and peatlands
 in Canada and Alaska
- 3 Mesoamerica and Western Caribbean

Forests, coasts, and coral reefs in Belize, Cuba, Guatemala, Nicaragua, Honduras, El Salvador, Mexico, Costa Rica, and Panama

- 4 Andes, Amazon, and Orinoco Forests, grasslands, and wetlands in Bolivia, Brazil, Colombia, Ecuador, and Peru
- 5 Southern Cone and Patagonia
 Landscapes and seascapes in Chile,

Argentina, Paraguay, and Uruguay

6 Sudano-Sahel
Savannas, woodlands, forests,
and wetlands in Chad and Central
African Republic

7 Central Africa and Gulf of Guinea

Forests, savannas, and coasts in Gabon, Republic of Congo, Democratic Republic of Congo, Nigeria, and Cameroon

8 East Africa, Madagascar, and Western Indian Ocean

> Savannas, forests, and coastal habitats in Kenya, Madagascar, Mozambique, Rwanda, Tanzania, and Uganda

- 9 South Asia and Bay of Bengal Forests, mountains, and coasts in India and Bangladesh
- Temperate Asia
 Forests, rangelands, and mountains in
 Afghanistan, Mongolia, Russia,
 and China
- 11 Greater Mekong
 Forests, grasslands, wetlands, and coasts
 in Cambodia, Laos, Thailand, and Vietnam
- 12 Southeast Asian Archipelago
 Tropical forests, marine and coastal
 ecosystems in Indonesia, Malaysia, and
 the Philippines
- 13 Melanesia Highlands and islands in Fiji, Papua New Guinea, and Solomon Islands

8 WCS IMPACT REPORT 2023
WHERE WCS WORKS 9





Winning Landmark Protections for Some of the World's Most Threatened Species

WCS helped achieve new international trade policies to protect some of the world's most threatened animals—including sharks and rays, freshwater turtles, and glass frogs all of which play critical roles in their ecosystems. This was the result of strong coalitions of diverse stakeholders working with countries around the world for many years. We also helped win important decisions on illegal trade in jaguars, tigers, and other big cats. Going forward, we will work to ensure that the hard-won new protections make a real difference for these species.

What is CITES?

We achieved this progress mainly through our work over decades with CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), a treaty among 184 national governments. The 2022 Conference produced many conservation wins.

Why Are Species at Risk?

Global demand for exotic pets, traditional medicines, jewelry, skins, and more is driving declines in big cats, sharks, turtles, birds, and other species.

Our Strategy

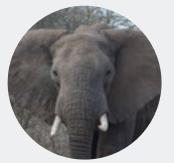
WCS draws on our science and field experience to advocate for strong policies that protect animals from illegal and unsustainable trade. We work on the ground and with national governments to help put those policy protections into action with legislative enforcement, education, and crime prevention strategies.

At the beginning of the 20th century, demand for exotic feathers for the fashion industry reached a fever pitch, leading to the near extinction of some species. WCS

helped write the 1913 Tariff Act, which prohibited importation of bird plumage for use in hats. WCS also led the effort to stop illegal trade in wild birds for pets, including through leadership in CITES and US legislation passed in 1992.

A Legacy of Wildlife Trade Advocacy

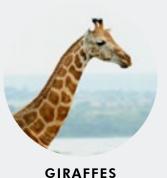
Over the years, WCS has helped win international trade protections for many species, including:

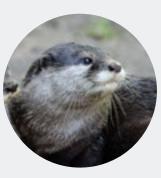


ELEPHANTS



BIG CATS





OTTERS

2007 2013 2016 2019 2022

More than 90%

of the most exploited shark species

Moving Sharks and Rays Toward Recovery

After over a decade of advocacy by WCS and partners, more than 90 percent of the most exploited species of sharks and rays are now under international protections—up from 20 percent just four years ago. The global shark fin trade has taken a particularly heavy toll on these ancient animals, driving the killing of some 100 million each year. Through our science-based strategy that includes fisheries management and protection of the most important strongholds for sharks and rays, we will ensure that this groundbreaking agreement leads to a true turning point for these top ocean predators.

Number of Shark and Ray Species Under Trade Protections

Ensuring Sustainable Fisheries:

combining genetic and visual

techniques.

WCS Next Steps

With new protections in place, we will

carry out our ambitious plan to safeguard

Sharks: We will support countries in

establishing and sustaining marine

protected areas that account for the

highly mobile nature of sharks and

rays and their wide-ranging threats.

Supporting Enforcement: We will

support customs officials in using our guides to crack down on illegal shark trade, and complete development of a new online shark fin ID toolkit

and recover sharks and rays around the

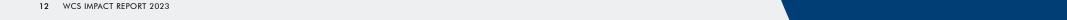
world. Our strategies include:

Creating Safe Havens for

GALAPAGOS SHARK

We will work with our partners—from governments to Indigenous Peoples and Local Communities—in more than 14 shark and ray countries to ensure fisheries are sustainable, and help diversify local incomes to take pressure off existing fisheries.

are now under international protections





WHITE-RUMPED

SHAMA



Since 2001, jaguar populations have been rising by six percent on average each year at our sites. But new WCS research shows that in the last 10 years, illegal online trade in jaguar parts-skins, bones, teeth, and skulls—has intensified, driven in part by demand from Asia. Unless this dangerous trend is checked, our strong progress in Latin America's jaguar strongholds could be jeopardized.

After WCS widely shared our findings, range countries agreed to establish new protected areas, and corridors between them, across the jaguar's range. The 184 member governments of CITES also pledged to take action to eliminate poaching and trade in these big cats.

We will redouble our efforts to disrupt poaching in jaguar strongholds in Guatemala, Peru, Bolivia, Brazil, and elsewhere. We will also work with communities to ensure that they gain more from conservation of forest resources—on which their livelihood depends—than from illegal trade, and we will strive to eliminate conflict between local communities and jaguars.

Protecting Songbirds from the Caged Bird Trade Beautiful song repertoires have made many birds targets for the trade in live caged birds, which threatens songbirds around the globe. WCS advocacy helped win new protections for two key species: the strawheaded bulbul and white-rumped shama. Both live in Southeast Asia, which is a hotspot for the caged bird trade. We will now work to expand protections to other songbirds, ensuring that forests continue to resonate with their music.

14 WCS IMPACT REPORT 2023

Safeguarding Glass Frogs

With their transparent skin, these amazing frogs are in high demand for the pet trade—and are consequently disappearing fast. That is why WCS urged countries to agree to commercial trade safeguards. Now international trade in all 150 species of glass frogs is managed under CITES. This will be key to reducing pressure on populations already threatened by habitat loss, climate change, and disease.

RETICULATED GLASS FROG

JAGUAR



LISHU LI

As the Counter Wildlife Trafficking Director for China, I lead a team that investigates the illegal wildlife supply chain and raises public awareness and engagement.

Q: How did you come to this work?

LISHU: I grew up near Guangzhou, which has a long history of using wildlife for medicine and food. It was the 1980s, and with all the new wealth around, eating wild animals was getting even more popular. I remember a family banquet where every dish was wild snake. I didn't think much about it until a dinner out when I was nine or ten. The restaurant had a caged live bear, cut through the stomach with a tube extracting bile; thirty years later that vision still stirs strong feelings in me. I knew at that moment I had to do something. So though everyone pushed me toward a betterpaid career in finance or law, I studied biology, then went to the Institute of Zoology at the Chinese Academy of Sciences. It was there that I met the country director for WCS, who asked me to help investigate the wildlife trade from Mongolia into China.

Q: What was that investigative work like?

story was that we were traders looking to buy fur—fox, wolf, lynx. If there was danger, I was too young to realize it. Coming from the subtropics, I felt the cold! My pants froze solid, and to open the car door we had to pour hot water into the lock to melt the ice. But there I met Elizabeth Bennett, who had started WCS's work on hunting and trade, and she hired me to help her develop a China strategy. I spent



two years interviewing people in markets and others associated with the trade; it was often hard to hide my sorrow and anger at the lack of action to stop the exploitation and suffering. In the end we decided to open an office in Guangzhou. Every other international NGO was in Beijing or Shanghai, pointing fingers at southern China for importing, marketing, and consuming wildlife. We were the first to set up right in the center of the problem with one staff person: me. Now I manage nine full-time staff plus interns. It's still emotional work. One colleague called me late one night having seen a room packed to the ceiling with pangolin scales. I felt helpless to ease her pain.

Q: What gives you hope?

LISHU: The progress we keep making. We've provided training and tools, like our Wildlife Guardian app, to help identify protected species. And we're using behavioral science to understand and change demand and consumption. We learned that if people bought a rare turtle from a licensed pet dealer, they assumed it must be sourced legally; some even thought that owning one was helping to save them. So through social media and zoos, we are going to reveal the true story of how trade threatens animals in the wild. Every time a young kid comes to our office wanting to volunteer or intern, or I meet a deeply committed person in government, I see the impact of our work.



Securing New Protections for a Gorilla Stronghold

In the forests of Republic of Congo's Djéké Triangle, you might spot a troop of western lowland gorillas munching on their favorite leaves and fruits. These gorillas are Critically Endangered, and their numbers have declined significantly over the last two decades in Central Africa due to hunting, habitat loss, and disease.

Next to the Djéké Triangle is Nouabalé-Ndoki National Park, one of the few bright spots where large gorilla populations remain stable. To identify and meet the gorillas' needs, WCS has employed and partnered with Congolese researchers and trackers at a research site in the Djéké Triangle for the last 25 years. In 2023, with support from WCS, the government expanded the national park to include the Djéké Triangle—helping ensure the gorillas' forest home remains intact.

Expanding Ndoki

From the outset of the project, WCS consulted Indigenous Peoples and Local Communities in the area through an extensive community engagement and information process, known as Free, Prior, and Informed Consent. Through this process, communities consented to expand Ndoki into traditionally used lands, while protecting their customary rights to access non-timber forest products and fish using traditional methods within a sustainable-use zone. Ongoing gorilla research in the area employs a majority Indigenous Ba'Aka staff, working hand-in-hand with researchers and students to protect gorillas.

The addition of the Djéké Triangle within the broader national park was made possible through the park's collaboration with a FSC-certified forest management company, Congolaise Industrielle des Bois, a subsidiary of Olam Global Agri, which operates outside the park.

Larger Than Yosemite

Now, Nouabalé-Ndoki National Park spans more than 4,300 square kilometers—making it larger than California's Yosemite National Park. As one of the most biologically intact tropical forests in Africa, Ndoki is a haven for elephant and ape populations, which have stabilized or risen in the last 15 years.





Elephant and ape populations have stabilized or risen across Nouabalé-Ndoki National Park

Looking Ahead

As one of the few places in the world where gorillas are habituated to humans, the western lowland gorilla viewing experience in the Djéké Triangle has the potential to be a world-class tourism destination. With our partners, we will create new tourism infrastructure and experiences in Nouabalé-Ndoki National Park, providing sustainable financing for the park and economic opportunities for local communities. Our field scientists will monitor and protect gorillas, elephants, and other key wildlife populations across the Ndoki-Likouala Stronghold.

16 WCS IMPACT REPORT 2023

CONSERVATION IMPACT | SAVING WILDLIFE 17





Helping Tenasserim Tigers Make a Comeback

WCS is helping tigers make a comeback in Thailand's Tenasserim mountain range, home to vast swaths of tropical forest. Tiger populations here have doubled since the mid-2000s, after poaching devastated these big cats and their prey. There are now at least 120 adult tigers in the area, and that number is growing. WCS has supported the growth of tiger and other wildlife populations in this area by partnering with the Thai government to counter poaching with effective patrol and monitoring technologies, including SMART.

Increasing tiger populations in the Tenasserims and elsewhere highlight WCS's goal of fostering recovery—not just preventing decline. Historically, we had to set conservation priorities based on how close species are to extinction per the International Union for Conservation of Nature (IUCN) Red List of Threatened Species. But we don't just want to avoid extinction—we want to restore abundance.

That is why WCS experts have worked with the IUCN to create the <u>Green Status of Species</u>, a new metric within the Red List that gauges recovery and assesses conservation impact, while creating incentives for proactive conservation action.



2X increase

in tiger populations in the Huai Kha Khaeng and Thung Yai Naresuan Wildlife Sanctuaries since the mid-2000s





Stopping Elephant Poaching

Elephants' massive size and wide-ranging travels mean they have an outsized impact on their environment: as they trample down plants they create corridors for other species to move through; spread seeds across vast distances through their dung; and maintain healthy, carbon-rich forests by "pruning" out smaller trees that hold less carbon, letting larger trees grow and store more carbon. But their unique size—and the human desire for ivory—also make them vulnerable to poaching, humanelephant conflict, and habitat loss.

The good news? WCS has science-based strategies to recover elephants, and we are seeing results.

Sites in Africa and Asia

Elephant populations have stabilized or increased in areas throughout Africa where WCS, working with government and local community partners, has ensured long-term, effective site management and the necessary resources and training. For example, we have curbed poaching in elephant strongholds in Mozambique, Nigeria, and Tanzania. In Asia, we have strengthened patrols, helped improve law enforcement, and reduced human-elephant conflict across our sites.

WCS works in more elephant landscapes than any other conservation organization.





SPOTLIGHT ON



Niassa National Reserve, Mozambique

This sprawling tropical stronghold is a haven for the nation's largest population of savanna elephants. WCS helped stem a 10-year elephant poaching crisis in Niassa, bringing poaching incidents down to near-zero for 3+ years and counting.



WCS ACTION | Together with the Mozambique government, WCS has strengthened anti-poaching enforcement on the ground and in the air, obtaining intelligence to focus patrols on areas with the greatest threats. We and our partners work with Niassa's communities to strengthen livelihood security; establish community-managed concessions; and ensure that local people play a central role in the management and governance of the reserve. We help the communities protect their crops in ways that do not harm wildlife, such as rockets that visually and audibly deter elephants when they are approaching fields. WCS collared 40 elephants so we can track and safely steer them away before they get too close.



Yankari Game Reserve, Nigeria

Yankari's savanna grasslands and woodlands contain the largest surviving elephant population in Nigeria. Nearly zero elephants have been poached in Yankari since 2015 thanks to WCS's support for strengthening the governments' law enforcement and anti-poaching efforts. The Reserve's elephant population is holding steady and expected to grow.

WCS ACTION | We have provided intensive ranger training, field rations, performance bonuses, and essential equipment for authorities in Yankari to deter poaching incidents. In addition to tracking elephants with satellite collars, we installed watchtowers in several communities, enabling farmers to easily spot nearby elephant herds and alert authorities who can safely guide them away from crops.



🔼 Ruaha-Katavi Stronghold, Tanzania

At nearly three times the size of Switzerland, Ruaha-Katavi is one of the largest intact savanna ecosystems in Africa. A recent WCS aerial survey across 89,000 square kilometers found that nearly 20,000 elephants are thriving here—with no reduction since 2018-thanks to our long-term work with communities and the government to stop poaching.

WCS ACTION | Since 2014, we have partnered closely with the Tanzanian government to strengthen anti-poaching efforts across Ruaha-Katavi, supporting quick-reaction patrols and boat teams. We are also working with communities in the heart of the landscape and have helped them establish three Joint Village Land Forest Reserves. Such areas are designed to both safeguard priority wildlife corridors and support local livelihoods, maintain ecosystem services, and mitigate climate change impacts.



Looking Ahead

To scale up protections for elephants and their habitats across our field sites, WCS will:

- Monitor key elephant populations and guide their recovery with targeted strategies to curb poaching
- Monitor threats including unsustainable logging, and strengthen surveillance work in key areas
- Advocate for governments to monitor illegal ivory trade, close all domestic markets, and ban all commercial ivory sales
- Use our science to strengthen understanding of poaching and ivory trafficking and ensure that already-closed domestic ivory trades can never re-open



JHOAN BRAVO

As a coffee grower in El Águila in the western Andean range of Colombia, I work with WCS to protect the Andean bear and improve livelihoods in my community.

Q: How did you first encounter WCS?

JHOAN: In 2016, a WCS team came to visit me on my farm. At the time, I earned extra money by chopping down trees in the forest to sell, and letting my cattle graze there. I was skeptical of the story these outsiders told, that we could set aside land for conservation and also increase our coffee production. I'd heard rumors that if we made such an agreement, we could lose ownership of our land. And I didn't see the value. Though since childhood I had seen these plants and animals every day, they were just part of the landscape. Of the bear, I knew only that my grandfather hunted it for the grease, to prevent fevers in children, and for status, to hang the skin on the wall.

Q: So why did you agree to participate in Conservamos La Vida (We Conserve Life)?

JHOAN: Campesinos (farmers) like me, whose land is in remote places, are mostly forgotten—by government and everyone. These visitors had traveled a long way to understand what my family needed. They helped me see how conservation directly impacts our quality of life: that the forests protect our water, and that the bear protects the forest, by dispersing seeds and preserving the homes of many other animals. Then they provided the equipment and training I needed to change my practices. I've stopped cutting trees. I raise fewer cattle



and keep them out of the forest. And for my coffee, I've combined the good traditions I learned from my father and grandfather with new techniques for handling the beans after harvest, and for managing my water use and disposal.

Q: How is it working out for you?

JHOAN: I support four people: my mother, my wife, and two small children. In the past, even with the logging, it wasn't enough. Now, because I produce more, and the coffee is of higher quality, it provides all the income I need. And I am proud to be a guardian and protector. I have become an example to my community. They ask me, 'What's happening on your farm?' They see my forests recovering. This program needs to be replicated everywhere; I want all rural farmers to be beneficiaries. I've also been learning about monitoring, and through WCS cameras I have seen for myself that protecting the forests has brought back tayra, puma, and deer. I've not yet seen a bear in the wild apart from on the cameras, but my family loves knowing that they are near.

Understanding Competition over Scarce Resources as Glaciers Melt

If you venture above the tree line in the Rocky Mountains, you might see an unusual sight: wild mountain goats and bighorn sheep that once coexisted peacefully now competing over access to salt deposits.

Interspecies conflict could be on the rise due to climate change. In this case, <u>WCS and partners</u> found that as human development pushes them away from their former habitats, these sheep and goats are competing over new salt licks revealed by receding glacial ice.

Just as scarcity of natural resources can spur political conflicts among people, mineral and water shortages can put species at odds with one another. As climate change reshapes our world, it is critical that we study its impact on wildlife so we can understand and address their changing needs.



Safeguarding Whales and Dolphins around the World

Commercial whaling fleets brought the giants of the ocean to the brink of extinction in the 20th century. But through research and advocacy, WCS and others spurred a public outcry that led to a moratorium ending this practice in the 1980s.

Today, many populations of whale species are rising, while others are stable—but we cannot let our guard down, because whales now face a host of new dangers, including collisions with ships, ocean noise, and entanglement in fishing gear.



Learn more about the whales we detect off New York and listen to their distinctive sounds



WCS determines which waters are most important to conserve for whales' and dolphins' breeding and feeding, and helps nations protect them. We use science to identify **New Protection for Indo-Pacific Dolphins**

Bangladesh is a global hotspot for several species of dolphin, whale, and porpoise, including the threatened Indo-Pacific humpback dolphin. These dolphins depend on nearshore habitats, bringing them into contact with human activities. A major threat is bycatch—when dolphins are accidentally entangled and killed in fishing nets and other gear intended for catching other species.

WCS ACTION | Working with the government of Bangladesh and local communities, WCS helped create a new marine protected area around Bangladesh's Saint Martin's Island in 2022 to conserve the extraordinary biodiversity there, including the threatened Indo-Pacific humpback dolphin, and to sustain local fisheries.



Reducing Ocean Noise Impacts: Arctic

Arctic Beringia hosts an astounding range of marine mammal aggregations, including bowhead and beluga whales, walruses, ringed and bearded seals, and more. But rapid climate change and industrial development are impacting both wildlife and the Native Alaskans who depend on those animals for subsistence. WCS has identified increasing ocean noise as a serious threat facing marine mammals that rely on sound for navigation, feeding, and communication.

WCS ACTION | Together with the Native Village of Kotzebue, Alaska, WCS has just launched a new phase of a listening project in Kotzebue Sound, a critical area for marine wildlife. The data from our recording devices will help ensure that vessels and industry development do not have lasting impacts on whales and other marine mammals.

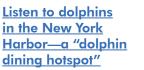
Monitoring Marine Life: New York

A city of islands, New York is situated in one of the world's largest natural harbors. Few New Yorkers are aware of the amazing abundance of wildlife that lies just offshore, including whales, dolphins, sharks, and rays.

WCS ACTION | WCS is protecting a suite of whale and dolphin species that increasingly travel through the busy waters off New York. In 2022, WCS scientists found that bottlenose dolphin feeding in the area is generally highest in late summer into fall, but peaks in different months at various sites. These findings will help inform the actions we and others take to reduce human-wildlife conflict in the area.









Looking Ahead

Our long-term vision is for populations of whales, coastal and freshwater dolphins, and other species of marine mammals to thrive throughout the world's oceans. We will:

- Safeguard Key Whale and Dolphin **Habitats:** WCS will help nations create and expand protected areas in important marine mammal habitats. We will significantly reduce bycatch by developing alternative fishing gear and dolphin-safe fishing practices.
- Use Science to Reduce Impacts on Marine Wildlife: Through science and advocacy we will reduce ship strikes and noise levels to protect whales, dolphins, and other marine life. Off the coast of New York, we will help reduce potential impacts from offshore wind farm construction.

FROM DISCOVERY TO RECOVERY

WCS's Legacy of Whale and Dolphin Conservation

WCS's efforts to safeguard the world's whales and dolphins stretch back to the early 20th century, when we sounded the alarm on commercial whaling and shared our discovery of major breeding and feeding grounds. In recent years, we have been using cutting-edge acoustic research to inform new protections for whales and other marine species.



1971

WCS produces a manual

that outlines facts about

the whaling industry,

plant substitutes for sperm whale oil, and suggestions for how individuals can help.

1935

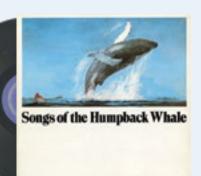
First Director of WCS's New York Aquarium Charles Townsend publishes maps derived from old whaling ship logs on the distribution and movements of whales—which until then were largely unknown. He plots the locations where more than 50,000 humpback, right, bowhead, and sperm whales were killed between 1761–1920. This invaluable baseline becomes the foundation of modern whale conservation work around the world.

1946

The International Whaling Commission (IWC) is established, initially to regulate the whaling industry and later to advance a conservation agenda. Today, WCS sits on IWC's Scientific Committee, ensuring that our research informs protections.

1970

Recordings of humpback whale communications by WCS wildlife biologist Roger Payne generate a wave of public interest, sparking the "Save the Whales" movement.



2000

WCS's Dr. Howard Rosenbaum and partners discover that right whales in the North Pacific Ocean are a separate species—distinct from the North Atlantic right whale and the Southern right whale—leading to its listing under the Endangered Species Act.

2003

WCS establishes a Southern right whale monitoring program in Patagonia to better understand the animals' family relationships, location of feeding grounds, and migration patterns.



2016

WCS and the Woods Hole Oceanographic Institution begin acoustic monitoring off New York to detect great whale species in near real-time.

2013

WCS and partners discover a new dolphin species, the Australian humpback dolphin, and publish key findings that show there are four distinct humpback dolphin species ranging from the coast of West Africa to the northern coast of Australia.

2020

WCS and partners launch two near

government requests ships to slow

down when the distinctive sound of the North Atlantic right whale is detected. Together with other great

real-time acoustic buoys, and the US

whales and dolphins, we are seeing

and acoustically detecting this critically

endangered species increasingly using

the busy New York/New Jersey Harbor

estuary and wider New York Bight.

2009

WCS and partners publish the largestever genetic study of southern humpback whales, analyzing DNA from more than 1,500 individuals. Today, following our decades of research and conservation action, two humpback whale populations off Gabon and Madagascar have recovered to 70-90% of pre-whaling levels.



2008

2015

WCS establishes a baseline of

acoustical data in the Bering Strait, allowing us to monitor changes in the

ocean soundscape and empowering

promote more effective protections for

us and our Indigenous partners to

beluga and bowhead whales.

WCS finds a large population of nearly 6,000 Irrawaddy dolphins—one of the world's rarest marine mammal species—in the freshwater mangroves of Bangladesh's Sunderbans.

2005

WCS and partners' genetic research follows a single humpback whale from one ocean basin to another. This first-ever, inter-oceanic migration data enables us to better evaluate international management procedures for humpback whales.



26 WCS IMPACT REPORT 2023 CONSERVATION IMPACT | SAVING WILDLIFE 27







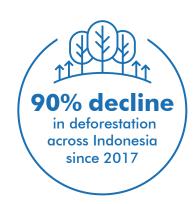
Protecting Indonesia's Forest Strongholds

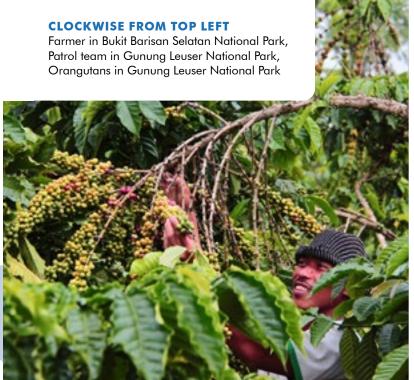
Indonesia's high-integrity, carbon-rich forests are home to such endangered species as Sumatran elephants, tigers, orangutans, and rhinos. Protecting these forests is critical for biodiversity, and is an important nature-positive solution to the climate crisis.

In the past six years, annual deforestation across Indonesia has declined by more than 90 percent—going from a loss of 1.2 million hectares in 2014–2015 to less than 120,000 hectares in 2020–2021.

WCS has supported the government in making this success possible, having assisted in expanding ranger programs and introducing SMART technology that makes it easier to collect, communicate, and act on conservation data in real time in the landscapes where we work, including Bukit Barisan Selatan National Park, Gunung Leuser National Park, and Bogani Nani Wartabone National Park.

We also support local farmers in developing sustainable, deforestation-free farming approaches, improving their access to markets while preserving forests.











DEO KUJIRAKWINJA

As Director of Kahuzi-Biega National Park, a World Heritage Site that the Democratic Republic of Congo designated WCS to manage, I work with rangers, Indigenous and local communities, and government to protect our unique wildlife and local cultures.

Q: How did you come to wildlife and WCS?

DEO: When I was small, my parents wanted me to learn about our culture, so sent me for a time to my grandfather's village. When we saw monkeys or baboons, he said I must never harm these animals, because we could not continue our traditions without them. He taught me how to behave in front of lions, and that when a chimpanzee came, we must yield the path to him. My whole family then pooled resources to send me to university, to study development. It was from that social sciences perspective that I did my first internship on gorillas, supporting alternative income projects around Virunga Park. That caught the interest of WCS biologist Andrew Plumptre, who as Director of the Albertine Rift Program was running a regional socioeconomic study for the families living near Congo's parks, and hired me to add another perspective. Twenty-one years later, I'm still here. I tell people if I left WCS, I'd leave conservation. No other organization listens so well to its people on the ground. I can say, 'This is wrong,' and the leadership says, 'Ok, let's talk about it and get it right.'

Q: Why did WCS want to take on the challenge of running a National Park?

DEO: Well first, because of the WCS history in Kahuzi-Biega. Beginning with George Schaller in 1959, most biological surveys here have been done by WCS. Second is the Park's value, both ecologicalwe have the biggest remaining population of Grauer's gorilla-and cultural. This is where you find Indigenous Batwa people, with their deep knowledge



of the natural world, still living in their own style. Third is the chance to create a human rights-based model of conservation that is conflict-sensitive. Before anything, we talk with local people about how new wildlife protections might hurt their livelihoods, and work to resolve those conflicts. In Virunga, for instance, illegal fishing was earning some people money but damaging the resources long-term. With our help, a community committee worked out a way to give the small fish time to grow, so that instead of catching five small ones that together weigh a kilogram, they could catch one bigger one and still earn the same amount. Similarly, a hundred people who were cutting down trees for charcoal told us they were happy to stop if they could start something new; WCS has now provided microcredit to 400 families to create small businesses in their village and nearby cities.

Q: Do you ever feel defeated?

DEO: None of this is easy. On May 10, we lost a ranger, killed in a confrontation with illegal gold miners. But I don't feel defeated. I feel that I need to keep fighting. In each project, we learn lessons to carry to the next. What we learned in Itombwewhere we helped hundreds of villages reclaim the customary use rights they had lost when it became a reserve—we brought to creating Kabobo Natural Reserve. There, from the beginning, the Batwa have had an equal voice, reclaiming their land and authority, doing everything from drawing the reserve boundaries to figuring out how to govern resources.



Blending Local Knowledge and Conservation Science in **Solomon Islands**

In Solomon Islands, a local Indigenous community's knowledge of lunar spawning cycles—supported by WCS technology—is bolstering fish populations in the world's largest saltwater lagoon.

In Marovo Lagoon, overfishing diminished once large groups of fish that congregated there to spawn—threatening biodiversity and regional food security.

At the request of the people of Peava, WCS partnered with the community to devise a management plan for their fisheries. Over generations, community members have passed down knowledge about when and where fish spawn. We paired those insights with WCS's monitoring technology to pinpoint spawning sites for important species like groupers. The resulting plan will allow fish stocks to replenish and includes protections based on the community's knowledge, like that fish spawn during the new moon each month.



WCS partnered with the Peava community to improve fish stocks by stopping fishing during delicate spawning periods. This is just one example of strong local knowledge incorporated into management practice. Another is the customary fish drive within the Dunde community in Munda (below), which embodies community cooperation and yields strong results for fisheries while preserving livelihoods and culture.





SPECIAL FEATURE: LOOKING AHEAD → →

Protecting Brazil's High-Integrity Forests and Waters

At the heart of the Amazon Basin, the tropical forests of the Brazilian state of Amazonas shelter a multitude of iconic species, including the jaguar and Amazonian manatee; deliver global climate benefits; and preserve the culture and livelihoods of Indigenous Peoples and Local Communities. In fact, except for Brazil as a whole, Amazonas holds more high-integrity tropical forest (123 million hectares) than any place else on Earth.

However, deforestation in the Brazilian Amazon, including Amazonas, has accelerated rapidly in recent years, with an estimated 11,500 square kilometers of forest disappearing in 2022 alone—an area larger than Yellowstone National Park.

That is why WCS is ramping up efforts to protect Amazonas' forests and waters, which will in turn help advance Brazil's national conservation and climate targets—part of international efforts to protect 30 percent of the planet by 2030.



In the 1990s, WCS helped local communities establish some of Brazil's first sustainable development reserves in the state of Amazonas.

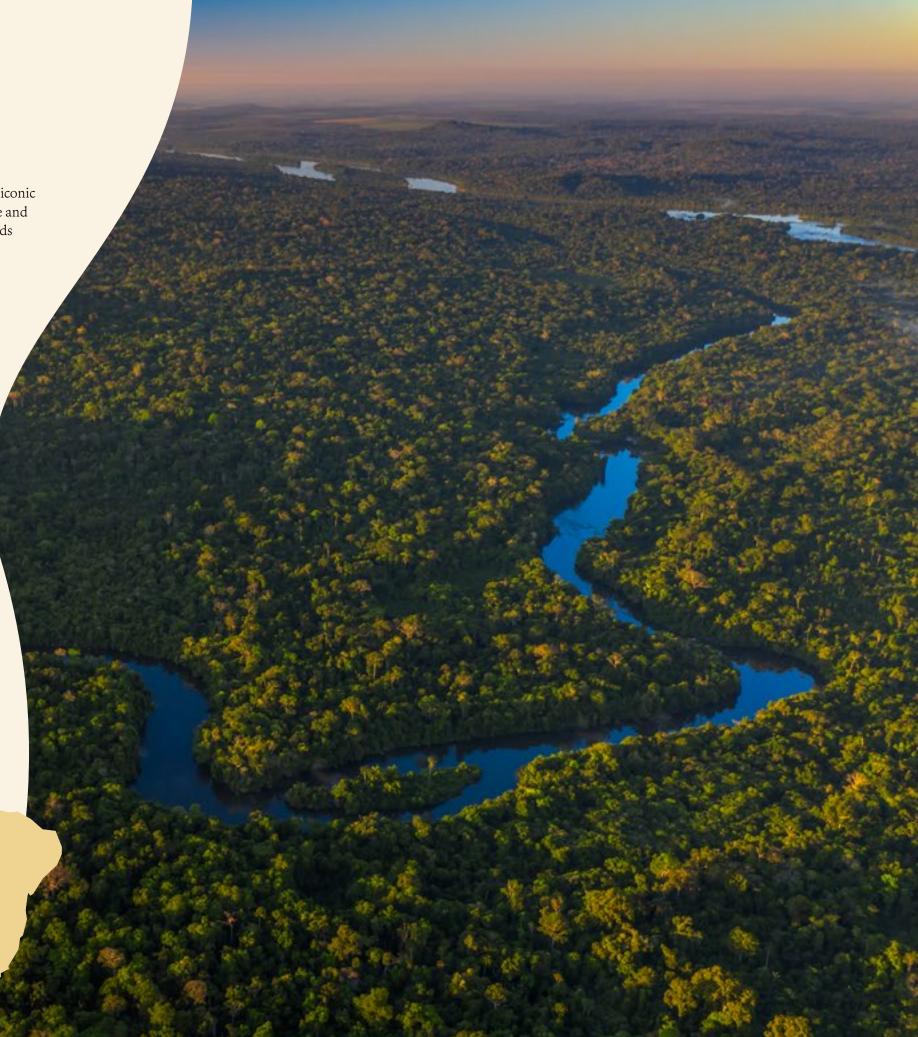
A Purposeful Way Forward

In the next four years, WCS seeks to catalyze the protection of at least 4 million additional hectares of undesignated forests and waters—around the size of Switzerland—that provide habitat for Amazonian manatees, giant river turtles, jaguars, and many other species. We plan to accomplish this by spurring the creation and expansion of protected areas, as well as the recognition of new communal lands and Indigenous territories.

We will also strengthen the management and governance of natural resources within 10 million hectares of existing protected areas and Indigenous territories in Amazonas, improving the well-being of more than 120,000 inhabitants.

BELOW | Landscapes where WCS and partners can help scale up conservation areas and the recognition of communal lands





SCALING UP OCEAN CONSERVATION **Spotlight on Indigenous Peoples and Local Communities**

Food and livelihoods for more than a billion people; half of the oxygen we breathe; the planet's largest carbon sink; and 80 percent of all biodiversity on Earth: this is what is at risk if we do not protect our oceans.

Yet less than 10 percent of our planet's oceans are formally protected. The remaining 90 percent is severely threatened by overfishing, pollution, unsustainable resource extraction, and climate change impacts.

That is why WCS is partnering with Indigenous Peoples, coastal communities, and governments to rapidly ramp up progress toward the global community's "30x30" goal of protecting 30 percent of the world's land and oceans by 2030.

There are many effective solutions to ocean conservation—and the key to each is centering

the rights and needs of Indigenous Peoples and Local Communities, who are often the most active stewards of nature. Establishing MPAs is one of the most powerful ways to reduce the threats our oceans face and sustain local economies.

WCS leads efforts to design, create, and expand MPAs around the world, focusing on the most biodiverse areas that are also critical for nutrition, livelihoods, and carbon absorption. And our work does not stop once an MPA is designated; we make sure that they are sustainable over the long term and work the way they are supposed to by partnering closely with Indigenous Peoples, local communities, and governments to strengthen management, build local capacity, and elevate community-led solutions.

WCS: OCEAN CONSERVATION LEADER



Helped create 18 new **Marine Protected Areas** (MPAs) in 2022 alone



Supported 63 new and expanded MPAs covering 560,000+ km² since 2016



Leads ocean work in 26 countries



200+ marine experts on staff



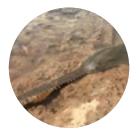
New Community-Led Marine Protected Area: Isla Ají, Colombia

This tidal wetland in Colombia's Naya River Delta contains nursing grounds for commercially important fish species that are critical to the food security, economy, and cultural heritage of local Afro-Colombian communities.

With WCS support, the Naya River community successfully worked with the Colombian government to formally designate Isla Ají as an MPA-protecting the region against over-exploitation of mangrove forests, mismanagement of solid waste, and unsustainable coastal development. Isla Ají and other protected areas in the vicinity will also preserve one of the world's critical carbon

WCS ACTION | The Naya River community invited WCS to collaborate on the creation of this important MPA because of WCS's 25+ year history of partnership with Colombian communities. We highlighted the area's scientific, environmental, cultural, and socioeconomic significance in support of the MPA declaration. We also collaborated with the community and local authorities to develop a comprehensive management plan for Isla Ají and are now supporting the community as they launch sustainable fishing practices and expand their livelihood opportunities.

SPECIES SPOTLIGHT





LARGETOOTH SAWFISH

HUMPBACK WHALE





GREEN SEA TURTLE OLIVE RIDLEY SEA TURTLE

SCIENCE SPOTLIGHT

WCS Breakthrough for Estimating Fish Stocks

WCS scientists have developed a new artificial intelligence algorithm that allows researchers to quickly and accurately estimate coastal fish stocks without ever entering the water. This breakthrough could save millions of dollars in annual research and monitoring costs while bringing data to less developed countries about the sustainability of their fish stocks—helping them make informed decisions about their natural resources.

Looking Ahead

We have a once-in-a-lifetime opportunity to help advance the global community's "30x30" goal by scaling up durable, equitable, inclusive, and effective new ocean protections.

WCS's goal is to secure 500,000 square kilometers of new protected areas in coastal seas by 2030; to support communities by effectively and equitably managing over 130 existing MPAs in the same timeframe; and to help governments achieve their 2030 targets. We will draw on our proven science, strong presence in 26 countries, and trusted relationships at national and international scales to achieve these goals.



IBIS Rice: Reaping Benefits for Wildlife and Farmers in Cambodia

Can what you eat help save endangered wildlife while supporting the livelihoods and culture of Indigenous Peoples and Local Communities? The answer is yes: WCS is making this a reality with the **IBIS** Rice initiative in Cambodia.

Participating farmers secure their ancestral lands and improve their livelihoods by receiving up to a 70 percent premium on the market price for their rice. In return, they agree to practice organic farming, and commit to zero deforestation and zero poaching. The organic rice fields and tall nesting trees are havens for the giant ibis; and reduced deforestation and hunting benefits more than 50 other threatened species in this unique ecosystem.

Today, the giant ibis is protected and recovering—as are other rare species, including the closely related and similarly endangered white-shouldered ibis. IBIS Rice is renowned for its quality across Cambodia, and farmers are thriving thanks to premium prices, improvements in productivity, climate **THROUGH IBIS RICE, WCS HAS:**



Helped recover the giant ibis, the national bird of Cambodia—and is also safeguarding more than 50 other endangered species



Protected 500,000 hectares of biodiverse forest wetlands an area larger than the Grand Canyon



Increased incomes of 2,000 rice farming families



Reduced deforestation by 75 percent





resilience, and increased financial literacy-all components of the IBIS Rice program. Core to WCS's approach is securing land tenure, which helps local farmers. WCS and partners are also developing ecotourism and forest carbon projects that turn conservation into community livelihood opportunities.

To verify that IBIS Rice is organic and wildlife-friendly, every growing cycle includes robust monitoring and certification involving farmers, community groups, agronomists, conservationists, biologists, and international auditors.

The company WCS established, IBIS Rice Conservation Co., Ltd, manages the entire supply chain, from farmers in the field to final product. Thanks to the quality of the jasmine rice and this incredible conservation story, IBIS Rice is in high demand from retail consumers and corporate partners in Cambodia, Germany, Canada, and the UK.

Looking Ahead

As awareness grows around how food production impacts our environment, retailers and consumers are increasingly making choices to reduce those impacts. WCS has big ambitions for IBIS Rice. Our growth strategy includes expanding to more farming communities in this unique and threatened landscape—and our product portfolio now includes breakfast cereals, rice cakes, and noodles. In the future, we plan to increase the supply of rice and grow our conservation impact so wildlife and people can thrive for generations to come.

"As an IBIS Rice farmer, I am proud to be taking a stand for wildlife and the natural resources of our ancestors so that we can protect them for future generations."

—Chhorn Chim

Prey Veng Village, Prey Vihear Province



The Mysterious Giant Ibis Returns For more than 30 years, the large but shy giant ibis seemed to have disappeared in Cambodia. Then in 2000, a WCS team rediscovered them living near remote Northern Plains villages where Indigenous and local farmers grow heritage jasmine rice. That was the catalyst for the launch of IBIS Rice in 2009, which has proved a win-win for farmers and the giant ibis.

Tapping Nature as a Climate Solution

We are feeling the mounting impacts of climate change across the globe, with increasingly severe droughts, storms, heatwaves, and wildfires. But even as people, animals, and ecosystems are experiencing these calamities, nature is protecting us from still worse consequences. Forests, peatlands, oceans, and other ecosystems capture and store carbon, regulate climate, and do other vital work—naturally.

Forests capture and store 30% of humanity's 40 billion tons of annual CO₂ emissions

Forests cool the surrounding air as trees release water vapor from their leaves

Peatlands are an important carbon sink, storing twice as much carbon as all the trees on the planet

The ocean provides half the world's oxygen and its currents regulate the global climate



Networks of roots beneath the ground filter water pollution and anchor soil against erosion

Peatlands absorb, filter, and release rainwater slowly, helping to ease droughts and floods that have increased in severity with climate change

Mangrove forests, seagrass beds, and tidal marshes store billions of tons of carbon

Healthy coral reefs buffer coastal communities from storms, flooding, and erosion

OUR STRATEGY IN ACTION

Protect High-Integrity Ecosystems

WCS uses science to identify the most important ecosystems to conserve, including those that provide significant climate benefits. For example, the Congo Basin and Gulf of Guinea are the most biodiverse regions of Africa and the single largest net carbon sink in the world. The Congo Basin also hosts the world's most extensive tropical peatland complex. Focusing on Democratic Republic of Congo and Republic of Congo, WCS has helped create 39 protected areas that conserve 6,300,000 hectares of forest and 5,300,000 hectares of ocean. With Indigenous and Local Communities, we have developed several innovative governance models for forests and fisheries that respect Indigenous land rights and resource access.

Prevent Deforestation

In and around Bukit Barisan Selatan National Park, in Indonesia's principal robusta coffee region, we found that coffee farming threatens forests which are home to diverse wildlife, including the Sumatran

tiger. We forged a partnership of coffee growers, coffee-buying companies, government, and others to protect the forest while supporting farmers' transition to deforestation-free production that improved livelihoods. Through models like this, we will expand our work to slow or halt agriculture-driven deforestation at forest frontiers.

Foster Resilience to Climate Change Impacts

WCS identified a <u>rare ocean cool spot</u> off the coast of East Africa that protects large coral populations from thermal stress and bleaching, providing a haven for vulnerable marine species. We are partnering with coastal communities to preserve this and other climate sanctuaries

across our oceans, pinpointing where coral reefs may or may not be lost through climate change and where healthy, resilient reefs have the potential to reseed other reefs.





In Guatemala's Maya Biosphere Reserve, WCS supported the country's national parks agency in recovering over 200,000 hectares of tropical forest land that was damaged by illegal cattle ranching. Restoration efforts



in these areas have led to the first increase in forest cover since the reserve's creation in 1990. Our research shows that restoration potential within WCS forest landscapes exceeds 50 million hectares, and achieving even 10 percent of this would deliver around 1 billion tons of CO₂ removal over 30 years.





Protecting Wildlife and Human Health around the World

The WCS One Health strategy centers on the interconnectedness of human, animal, and ecosystem health. The biodiversity and climate crises, as well as the COVID-19 pandemic, have heightened the need to expand such approaches worldwide. WCS aims to minimize the risks of disease emergence and spillovers while promoting better health by preserving intact landscapes and seascapes that serve as habitats, food sources, and natural barriers against disease. Combating wildlife trafficking, as well as on-the-ground surveillance and monitoring efforts, are crucial for the early detection and prevention of health threats.

THE AMERICAS

Peru

Vietnam

AFRICA
Republic of Congo

Around the Globe





Monitoring Wildlife Health Crises

In the past year, Peru has experienced devastating wildlife mortality events, including the deaths of thousands of sea lions and wild birds from avian influenza. WCS developed SMART for Health, a wildlife health monitoring system, to help field staff and decision-makers respond in real-time to these kinds of wildlife crises. WCS is now collaborating with the Peruvian government to integrate wildlife health data into its national SMART system. With this integration underway across 10 protected areas, we plan to expand across all 76 Natural Areas in Peru.

Sounding the Alarm on a Viral Hotspot

WCS specialists identified a hotspot for emerging viruses at a critical intersection between wildlife, livestock, and human populations in Vietnam. Researchers gathered more than 1,600 animal and human samples from bat guano collection sites, natural bat habitats, and nearby pig farms. The findings revealed a high risk of coronavirus spillover from bats to pigs, with potential exposure of humans as well. By incorporating wildlife expertise into One Health surveillance, we can alert communities and policymakers to emerging health threats and aid focused mitigation strategies.

Early Warning for a Deadly Disease

Because of Ebola's high mortality rates for humans and great apes, outbreaks of the virus must be detected swiftly. Following the 2005 Ebola epidemic, WCS helped create an early warning system in the northern Republic of Congo, supported by a growing network of thousands of hunters from over 260 villages. When these hunters find wildlife carcasses, particularly great apes, they report them to WCS-trained rapid responders, who investigate potential Ebola infections. Efforts like the early warning system help prevent outbreaks. Since 2005, the Republic of Congo has not experienced an Ebola epidemic.

Advancing Pandemic Prevention

To prevent pandemics, WCS is prioritizing efforts to stop pathogens—and the diseases they cause—from moving between wildlife and humans in the first place. We are promoting international agreements that include primary prevention at the source: by reducing deforestation, expanding wildlife surveillance, and closing or strictly regulating highrisk wildlife markets and trade.

42 WCS IMPACT | PROTECTING NATURE'S STRONGHOLDS 43



Securing a Conservation Legacy for Hudson Canyon

One of the United States' greatest landmarks is 10,500 feet below the surface of the Atlantic Ocean, just 100 miles offshore from New York City. The Hudson Canyon, carved by natural forces during the last ice age, is the largest underwater canyon along the US Atlantic Coast. The surrounding New York seascape is home to a diverse array of marine life including whales, sharks, sea turtles, and deep-sea corals, as well as species that support robust fisheries and a rich maritime history.

WCS is leading a diverse coalition of partners to secure designation of the Hudson Canyon as a National Marine Sanctuary. Key to our success is mobilizing public support. To elevate the profile of the Hudson Canyon, we have trained hundreds of youth leaders and engaged millions of visitors across WCS's New York Aquarium and four zoos. In 2022, the Biden Administration began the multi-year designation process, and in 2023, launched an advisory council to guide the management plan. The Sanctuary would exclude harmful resource use including oil and gas development, and mineral extraction, in perpetuity.



The Hudson Canyon is a unique place that supports an array of marine life, including whales, dolphins, sea turtles, sea birds, sharks, deep sea coral, and more.

SPECIES SPOTLIGHT



SPERM WHALE Physeter macrocephalus



BLUEFIN TUNA Thunnus thynnus



SHORTFIN MAKO SHARK Isurus oxyrinchus



COMMON DOLPHIN Delphinus delphis



BLUE WHALE



LOGGERHEAD SEA TURTLE







Celebrating 125 Years of the Bronx Zoo

Since opening its doors in 1899, the Bronx Zoo has become a cultural icon, a conservation giant, and a gateway to nature, learning, and quality family time for hundreds of millions of people. The Bronx Zoo celebrates its 125th anniversary in 2024; here are some of the milestones and groundbreaking innovations that have made this the world's most influential zoo.



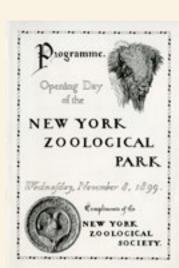
Looking Ahead

Animals today face threats from habitat loss, wildlife trade, climate change, and more. Securing our shared future will require a major shift in how we value nature—and zoos and aquariums play an important role in inspiring this change.

WCS is the only organization that combines onthe-ground field conservation programs in more than 50 countries with the world's largest network of urban wildlife parks: our flagship Bronx Zoo, the Central Park Zoo, Prospect Park Zoo, Queens Zoo, and New York Aquarium. With 3.5 million yearly visitors—and science education programs that benefit more than 1 million students, educators, and families annually—our reach is unmatched.

Building on the Bronx Zoo's unparalleled influence, our goal is to turn a generation of zoogoers into conservation advocates. We will weave powerful stories of the threats to nature and the importance of conservation ever deeper into our immersive exhibits, person-to-person interactions, and educational programming. And we will use technology to personalize visitors' experiences, bring them behind the scenes, and highlight the connections between our zoo and fieldwork—empowering people of every age and background to find their own personal connection to wildlife, and igniting a 21st century conservation movement.

BRONX ZOO CELEBRATES 125 YEARS

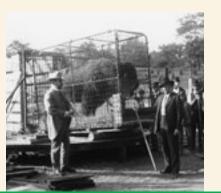


1899

The Bronx Zoo opens The Bronx Zoo (The New York Zoological Park) opens and quickly becomes a popular destination for New Yorkers and

1907

Saving bison from extinction The American Bison Society begins transferring Bronx Zoo bison to protected lands in the American West to restore decimated populations, helping bring these iconic animals back from the brink of extinction.



1929

First zoo-based education department is established

The Bronx Zoo opens its wildlife education department—the first such zoo-based program in the US—teaching zoology, conservation, and natural history to visitors and students. Today, our education programs reach 1 million people each year, including 150,000 students—many of whom attend under-resourced New York City schools.



1956

William Conway begins legacy of transforming zoos

William Conway becomes Associate Curator of Ornithology at the Bronx Zoo—before later becoming the Bronx Zoo's Director and President of WCS. Conway redefined what zoos and aquariums should be and how they operate, including the important role of zoological parks in saving wildlife in nature. Under his leadership, WCS transformed into a conservation organization operating in more than 50 countries, and helped establish or expand 60 protected areas around the world.

1972

World of Birds premiers

The groundbreaking design of World of Birds, featuring birds flying freely through lush, naturalistic habitats, inspires other zoos around the world to build similar open concept exhibits. This building also serves as home base for many crucial breeding efforts for vulnerable and endangered bird species.



1977 Wild Asia Monorail opens

1984 Carter Giraffe Building opens

1990 Gelada Reserve opens

1999

Congo Gorilla Forest debuts

This immersive 6.5-acre experience featuring two gorilla troops is the first exhibit in the world to directly link a visit to the zoo to an act of conservation. Congo Gorilla Forest highlights how WCS helps save animals through both our work in the Bronx Zoo and Central Africa. Since 1999, this award-winning exhibit has provided more than \$15 million for conservation.

Tracking West Nile Virus

Bronx Zoo veterinarians and veterinary pathologists play a pivota role in identifying West Nile Virus in local wild bird populations and documenting the virus' spread in the Western Hemisphere.



2018

Career Lattice launches WCS launches its Career Lattice, formalizing a longstanding program for youth from historically underresourced NYC communities to gain expanded opportunities at the Bronx Zoo and our other parks. WCS is committed to diversifying science fields, and our work with youth is central to this mission; in 2022, 85 percent of youth who completed our programs said they planned to pursue a career in science.



2020

Discovering COVID-19 in big cats

One of our tigers becomes the first known wild animal to contract COVID-19 from a person, who was asymptomatic. Four other tigers and three lions also contract COVID in the days that follow. All animals fully recover, and WCS experts are able to share what they learned with the world, illuminating more about the virus's impact on animals.

2020–2021

Supporting the community during COVID-19

The Bronx Zoo lends a hand to help our community at the onset of the COVID-19 pandemic, serving as a COVID testing site and a base for 250 ambulances from around the country. In 2021, the Bronx Zoo partners with New York State to become a COVID vaccine administration location, distributing complimentary zoo tickets to people who receive their vaccine at the site.



1901

Pioneering the first veterinary

The Bronx Zoo establishes its zoo-based veterinary program, becoming a pioneer in zoological health care. It is now one of the oldest and most comprehensive zoo-based veterinary programs in the world.



1928

genetic diversity and population sustainability.

Conserving Galápagos

Haskins Townsend, concerned about the decline of wild Galapagos tortoise populations, collects animals to set up assurance colonies in zoos. Several of the individuals he collected are still alive today and their offspring reside at the Bronx Zoo and other zoos across the country. The Bronx Zoo participates in the Association of Zoos and Aquariums' Species Survival Plan® program for these tortoises and many other species, breeding for



1941

Innovating with African Plains

This marks the first time the multi-species exhibits highlight the habitats on which they depend.





Bronx Zoo uses a series of moats to exhibit predator and prey species in what appear to be the same naturalistic space with no visible barriers. Today, most exhibits at the Bronx Zoo use this approach—large spaces that mimic the species' wild habitats and emphasize the interactivity between animals and their environments. These dynamic need to protect wildlife and the



1963

Creating a groundbreaking design department

WCS's Exhibition and Graphic Arts Department becomes the first of its kind in any zoo or aquarium uniquely combining architecture, landscape and exhibit design, and interpretation. The Bronx Zoo and WCS's other parks have won more exhibit design awards from the Association of Zoos and Aquariums than any other zoo, and continue to set new standards of excellence in the field. These exhibits allow visitors to observe animals behaving as they would in nature.

1985

Wildlife Health Center opens

WCS establishes the Bronx Zoo's Wildlife Health Center, a state-of-the-art teaching and research hospital for zoological medicine. The Center's pathology department, one of the first for any zoo, includes an inhouse molecular diagnostics laboratory, which supports research in our parks and in the field.

1986 Himalayan Highlands opens

JungleWorld opens

Widely considered the most ambitious indoor environment of its time, this one-acre building is the largest at the zoo—containing four habitats and five naturalistic galleries. It inspires wonder and awe, highlighting a diversity of species and the urgent need to conserve rainforests and species in Asia and beyond.



2005 Butterfly Garden opens



2003

Premiering Tiger Mountain

This immersive, naturalistic exhibit brings visitors eye-to-eye with Amur and Malayan tigers while they stalk, pounce, swim, and sprawl as they would in the wild. This awardwinning exhibit showcases the work we do to care for tigers at the zoo and to protect them in the wild.

2012

2009 Amphibian Propagation Center opens

2008

Madagascar! opens

WCS transforms the Bronx Zoo's historic Lion House into a new

showcasing our field conservation

efforts on the island. This was the

Bronx Zoo's first "green building"

and New York City's first landmark to

be LEED-certified. It uses sustainable

strategies to save energy and curb

environmental impacts.

unique, endemic wildlife and

experience focusing on Madagascar's

Saving Kihansi spray toads WCS releases 2,000 Kihansi spray

toads bred at the Bronx Zoo and Toledo Zoo into their native Tanzania habitat after this species went extinct in the wild. To date, we have supported the release of more than 10,000 of these toads in an effort to re-establish a population in nature.



2019

Turtle Propagation Center is created

The Bronx Zoo creates a biosecure facility to breed and raise some of the world's most endangered turtle speciesensuring these species will not go extinct, and preparing many of them for release into the wild. Conserving freshwater turtles and tortoises is a major priority for the Bronx Zoo.



2017–2021

THE ZOO inspires millions on Animal Planet

Over five seasons, this successful docuseries provides an inside look at the Bronx Zoo and WCS's other New York City parks, and brings our critical conservation message to more than 200 markets around the world, with an average of more than 1 million viewers in the US per episode. THE ZOO provided an in-depth, behind-the-scenes look at how our expert staff care for thousands of animals, and focused on the relationship between the animals and the people who care for them.

2017–2022

Breeding and rewilding bison In 2017, six purebred bison calves are born

into the Bronx Zoo's herd, which came to the park as a historic gift from the Assiniboine and Sioux tribes.

In 2022, the Bronx Zoo sends a group of bison to the Osage Nation in Oklahoma to augment the genetics of the Osage's existing herd, and to help the tribe preserve their cultural heritage and the ecology of their ancestral lands.





LEIGH ANN CLAYTON

As Director of the New York Aquarium, I lead our team in delivering high-quality animal care and meaningful visitor experiences, and in advancing marine conservation in our local waters.



LEIGH: Growing up, I had a lot of freedom to roam outdoors, searching for frogs and other creatures. Watching their wetlands turn into housing developments was a turning point. I first explored policy, staffing a Capitol Hill subcommittee that handled environmental protection legislation. But I wanted a more direct hand in animal care. so I became a veterinarian and spent almost two decades leading animal health and welfare teams at the National and New England Aquariumseventually adding management and finance skills via business school. I came to WCS because the New York Aquarium is in a class by itself. I was particularly excited by the conservation and science programs my predecessors had launched right here in New York waters, and by how they'd connected that work to our visitor experience and education programs. We focus on protecting the productive waters of the Hudson Canyon, home to leviathan whales, endangered sea turtles, cold-water corals, and many other species.

Q: A typical day?

LEIGH: I'm here with our visitors and staff almost every day. We have a committed team, attentive to the well-being of every visitor and every animal in our care. For instance, even with a big group of fish, our Animal Care staff treat each as an individual; if one falls sick, the veterinarians and keepers work together to heal it. They trained our



moray eels to swim to a platform so we can monitor their growth rate—always seeking to use natural behaviors to allow the animals to participate in their own care. All are just as committed to our role as a park: a safe place for families to learn and build memories, where children can see animals up close, discovering their wisdoms. In addition to supporting the on-site team, I also spend quite a bit of time on community engagement in Coney Island and beyond.

Q: Your vision for the future?

LEIGH: Between Hurricane Sandy and the pandemic, this staff has more understanding of resilience than any team out there. It's an incredible strength that can inform our educational work and the conservation of aquatic environments, which under such mounting pressures as climate change will also need their resiliency fortified in the years ahead. Our researchers can advise on very specific questions, like how eels use the Bronx River or how sharks use the waters off our shore. We can also build on the foundations already laid to get the Hudson Canyon designated as a National Marine Sanctuary. If we can protect one of the world's biggest submarine canyons next to one of its busiest harbors, that will be an important piece of our conservation puzzle.



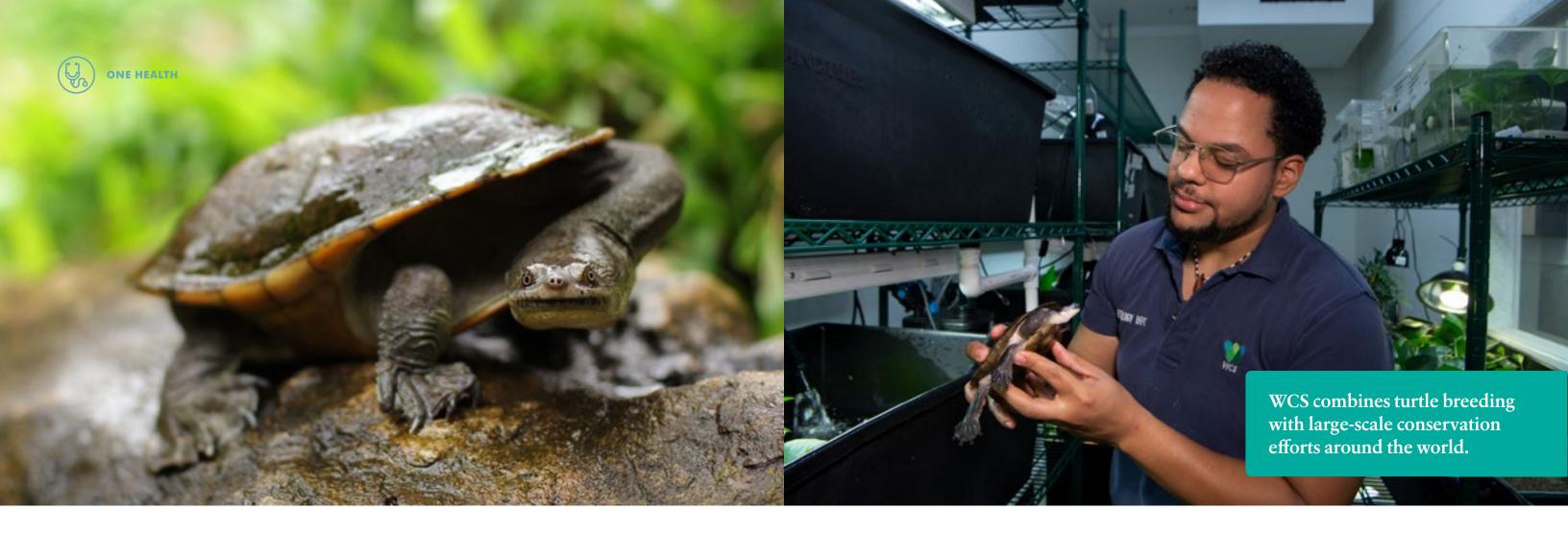
Giving Hope to a Giraffe Calf through Innovative **Veterinary Care**

WCS health experts provide comprehensive and innovative care for more than 20,000 animals across our five New York City parks, fostering the health and well-being of tiny fish, big cats, and everything in between.

A notable case is that of Tayari, a Rothschild's giraffe at the Bronx Zoo. She was born with severely weak joints in both her rear feet, which made it impossible for her to walk. Our team of veterinarians, keepers, and other animal-care experts worked intensively for months to improve Tayari's mobility, fitting her with special corrective shoes and performing a complex platelet-rich plasma infusion.

Without this intervention, Tayari would not have survived. As a result of the care from our Zoological Health Program and the Bronx Zoo Department of Mammalogy, she now walks without assistance, and is becoming stronger each day as the newest member of our giraffe herd.





Saving Turtles: From the Bronx Zoo to the Field

Turtles and tortoises are vital to the health of our planet as scavengers, seed dispersers, and food sources for wildlife; the holes they dig also provide shelter for other animals.

Yet nearly two-thirds of turtle species are vulnerable to extinction or already extinct due to collection for food and the pet trade, habitat destruction, and climate change. Turtles and tortoises are also vulnerable to the spread of new pathogens. For many, breeding at zoos and other accredited places is their only chance for recovery.

WCS combines advanced breeding and husbandry programs at our Bronx Zoo and other NYC wildlife parks with large-scale field conservation efforts for turtle and tortoise species. Our goal is to breed and reintroduce as many threatened turtles and tortoises into the wild as possible, and to work with local communities and governments to ensure they can thrive in their native habitats.

TURTLES AND TORTOISES CONSERVED AT WCS PARKS:





BURMESE STAR CHINESE **TORTOISE BIG-HEADED TURTLE**

ROTE ISLAND SNAKE-NECKED TURTLE



LEAF TURTLE





CHINESE YELLOW-HEADED **BOX TURTLE**

SCIENCE SPOTLIGHT

Using Tech to Detect Rare Turtles

Over a decade ago, WCS created a molecular diagnostics laboratory at the Bronx Zoo's Wildlife Health Center—one of only a few such zoo-based labs in the world. Among the molecular program's fascinating discoveries is how to use environmental DNA (eDNA) to find endangered species, including the world's last remaining Yangtzee gian softshell turtles in northern Vietnamese lakes. This tech searches for and analyzes trace amounts of genetic material left behind by organisms and wildlife in aquatic and other environments.

Our eDNA results and more than 25,000 hours of field observation confirmed that there could be at least six Yangtzee giant softshell turtles remaining in the wild. Our goal is to relocate these turtles to a WCS facility, breed them, and later reintroduce them back into their native habitat securing a viable future for these unique animals.

Rote Island Snake-Necked Turtles

Rote Island snake-necked turtles are believed to be extinct in the wild, due largely to collection for the pet trade and predation by invasive species. WCS's Bronx Zoo and our other zoos are breeding these turtles for reintroduction in the wild, with more than 60 successfully hatched thus far. In 2022, we led the largest transfer of this species to date to a partner zoo in Singapore, which will keep the turtles until they are ready for transfer to Indonesia.

Looking Ahead

In the coming months, WCS hopes to send an additional group of nearly 100 Rote Island snakenecked turtles to the Singapore Zoo, where with the original group they will later be released into their native Indonesian habitat. All will be fitted with microchips so WCS scientists can monitor them after release

56 WCS IMPACT REPORT 2023 CONSERVATION IMPACT | CONNECTING PEOPLE TO NATURE 57



KEVIN TORREGROSA

As Curator of Herpetology at the Bronx Zoo, my job is to oversee animal care, develop our exhibits, and support global conservation of reptiles and amphibians in the wild.

Q: How did you land at WCS?

KEVIN: The Bronx Zoo is the top of the mountain for anyone interested in reptiles, a historic institution. The first book I ever loved was Snakes of the World by Raymond Ditmars, the first curator of the World of Reptiles when it was built in 1898; it's the only Bronx Zoo building still used for its original purpose. Our herpetology department is known for some of the most notable advancements in the care of amphibians and reptiles. We were the first to breed the Sunda Gharial, for instance, as well as the critically endangered Chinese alligator. I had been working at the St. Augustine Alligator Farm and Zoological Park, which had on display every known species of crocodilian. But when an opportunity opened up here, I just had to come.

Q: What's most rewarding about your job?

KEVIN: The herpetology team amazes me every day. It's small, just six full-time zookeepers, so ensuring excellent care for our animals is already an impressive achievement. But they also provide enrichment, giving them opportunities to engage in natural behavior—letting the reptiles, for instance, set their own body temperature by basking in the sun. The team supports captive breeding, collaborating with WCS teams in the field. In 2021, we hatched out Komodo dragons for the first time. The six happy, healthy dragon babies are now three feet long. Each of our keepers also assists with the department's conservation projects around the world.



Q: What kinds of conservation projects?

KEVIN: Well in New York, we've got a head-start program for a salamander called a hellbender, also affectionately known as old lasagna sides. We hatch eggs and raise babies until they're big enough to release upstate. We're raising Rote Island snake-necked turtles, extinct in the wild after years of severe overharvest for the illegal pet trade, to send to Indonesia for release this fall. We assisted in the rescue of the Kihansi spray toad, whose only home—a wetland created by the mist of a waterfall in Tanzania—was about to be destroyed by a new hydroelectric dam. No one even knew they existed until construction began. We collected 499 toads and brought them here, figured out their care, then sent 10,000 back to Tanzania. And we're helping Cuba recover an endemic crocodile who'd lost all its habitat except for a single swamp. As Cuba has worked to restore wetlands and breed animals, we've assisted in various ways, from rebuilding their incubation facilities to assessing the health of animals before release; it was moving to watch those crocodiles slip back into those ancient swamps. And we've built enough trust that, in April, our Cuban partners let us recapture two and fit them with satellite tags—a big deal given our two nations' history—so we can monitor their recovery.



Advancing Conservation with Public and Private Investment

WCS is grateful for the commitment of our private funders, whose strong support enables us to deliver on our mission to save wildlife and wild places. Private philanthropy is essential to our success, and helps act as a catalyst for public funding. Each dollar we receive from private supporters allows us to leverage and put to work at least five dollars of additional funding toward the programs and operations described in this report.

Our longstanding partnership with New York City and New York State—which spans more than 125 years—underwrites critical science learning, capital upgrades, animal care, and operations at our zoos and aquarium. In addition, WCS's ability to achieve and sustain conservation results makes us a trusted partner of governments around the world. In FY 2022 (July 1, 2021–June 30, 2022), our global conservation programs received substantial support from more than 72 government funders and 14 multilateral agencies.

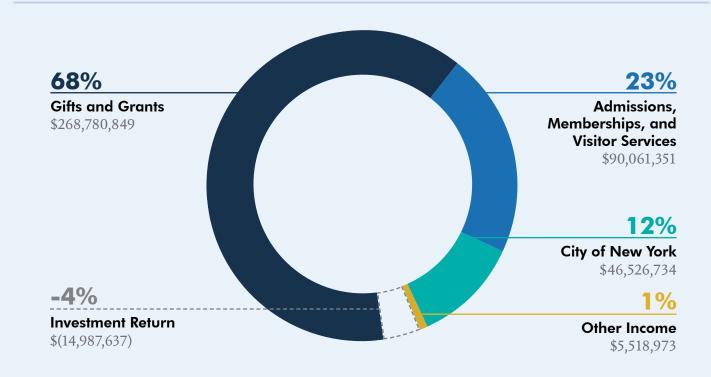
We have welcomed an increasing number of visitors to our New York City parks in the past year as people seek safe, meaningful opportunities to connect with nature and with one another. Stronger attendance played a critical role as we rebounded from pandemic-related fiscal challenges. Like many other endowments, WCS experienced modest investment losses in FY 2022, but thanks to generous supporters like you, our overall financial position is strong.

We hope you feel proud of the work that your support makes possible. We could not do it without you. Thank you.

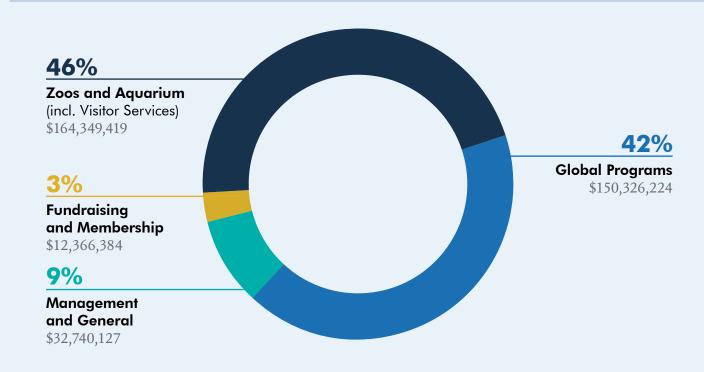


Financial Report

2022 TOTAL REVENUE (\$395.9 MILLION)



2022 TOTAL EXPENSES (\$359.8 MILLION)



STATEMENT OF ACTIVITIES (JUNE 30, 2022 AND 2021)

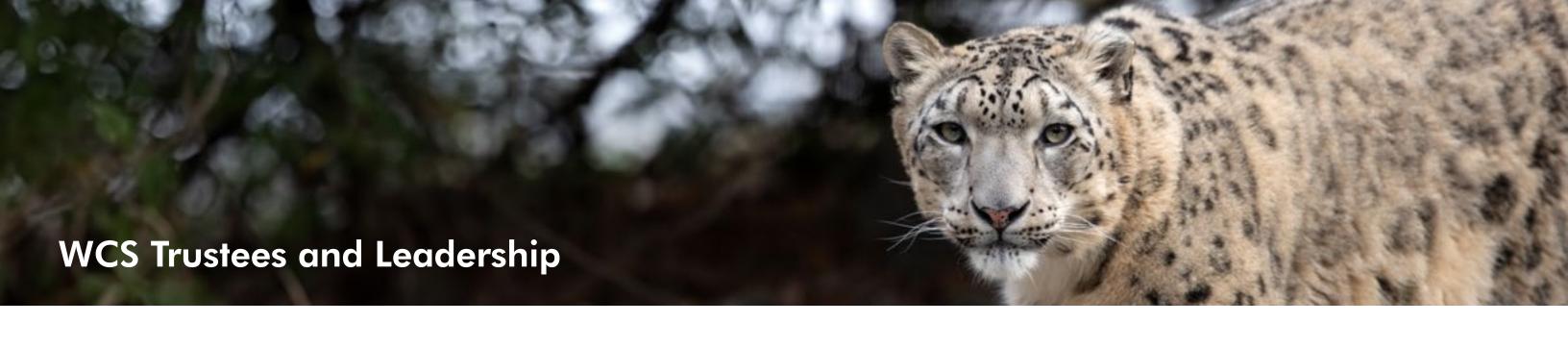
2022 TOTAL REVENUE (\$395.9 MILLION)	2022	2021
Bequests	\$ 3,706,887	\$ 2,548,752
Gifts and Grants	223,779,906	120,473,112
City of New York	46,526,734	58,987,878
Federal Agencies	41,294,056	30,934,275
Gate and Exhibit Admissions	38,950,891	27,098,146
Visitor Services	33,313,458	22,176,803
Memberships	17,797,002	16,897,904
Investment Return	(14,987,637)	131,846,459
Other Income	5,518,973	4,903,627
Total Revenues	\$ 395,900,270	\$ 415,866,956
2022 TOTAL EXPENSES (\$359.8 MILLION) Program Services		
Zoos and Aquarium	\$ 164,349,419	\$ 155,121,330
Global Programs	150,326,224	128,553,839
Management & General	32,740,127	33,683,652
Fundraising and Membership	12,366,384	12,498,843

CONSOLIDATED BALANCE SHEETS (JUNE 30, 2022 AND 2021)

ASSETS	2022	2021
Cash and cash equivalents	\$ 136,340,375	\$ 75,324,347
Miscellaneous receivable	5,089,064	1,895,734
Receivable from the City of New York	77,387,645	100,743,333
Receivable from the State of New York	8,151,650	4,759,332
Receivable from Federal sources	6,377,369	8,349,789
Contributions receivable	12,009,382	7,572,948
Non-US governmental and bilateral grants and contracts receivables	11,173,792	11,205,054
Private organization grants and contracts receivables	28,577,322	20,079,707
Inventories	3,327,554	1,960,907
Prepaid expenses	8,647,062	5,214,374
Advances to sub awardees	4,829,817	5,781,152
Right to use lease assets	1,946,977	3,212,853
Investments	523,679,381	560,872,637
Amounts held in trust by others	1,664,957	2,111,963
Funds held by Bond Trustee	8,548,905	14,206,613
Property and equipment	440,425,317	449,314,235
Total Assets	\$1,278,176,569	\$1,272,604,978
Grants and contracts liabilities	45,212,110	56,720,122
Accounts payable and accrued expenses	\$ 54,253,872	\$ 52,068,872
Escrow liability	30,115,001	21,485,480
Right of use lease liability	2,007,987	2,932,322
Annuity liability	2,730,634	3,124,493
Line of credit	2,730,634	30,000,000
Bonds payable	164,923,219	164,884,780
Post-retirement benefit obligation	···········	
Total Liabilities	45,883,859	54,341,846 385,557,915
	345,126,682	365,557,715
Net Assets (Without donor restriction)	(2.447.775)	(4,568,541)
General Operating	(2,447,775)	
Board Designated	132,573,988	130,880,568
Net investment in property and equipment	282,989,222	297,535,849
man and the contract of the co	413,115,435	423,847,876
Total without donor restrictions		
Net Assets (With donor restriction)	0.46.600.005	100.010.010
Net Assets (With donor restriction) Purpose restricted	246,689,291	
Net Assets (With donor restriction) Purpose restricted Endowment Corpus	273,245,161	272,986,244
Net Assets (With donor restriction) Purpose restricted Endowment Corpus Total with donor restrictions	273,245,161 519,934,452	272,986,244 463,199,187
Net Assets (With donor restriction) Purpose restricted Endowment Corpus	273,245,161	190,212,943 272,986,244 463,199,187 887,047,063 \$ 1,272,604,978

62 WCS IMPACT REPORT 2023

ADVANCING CONSERVATION WITH PUBLIC AND PRIVATE INVESTMENT: FINANCIAL REPORT 63



BOARD OF TRUSTEES

BOARD OFFICERS

Alejandro Santo Domingo Chair Hamilton E. James Vice Chair Thomas J. Edelman Treasurer Elizabeth Ainslie

ELECTED TRUSTEES

Secretaru

Elizabeth Ainslie Frederick W. Beinecke Rosina M. Bierbaum Duncan A. Chapman Katherine L. Dolan Thomas J. Edelman Christopher J. Elliman Paul A. Gould Peter T. Grauer Jonathan D. Green Antonia M. Grumbach O. Andreas Halvorsen Judith H. Hamilton Ian Hatzius John N. Irwin III Hamilton E. James Julia Marton-Lefèvre Ambrose K. Monell Adebayo O. Ogunlesi Aleiandro Santo Domingo Juan Manuel Santos David B. "Scott" Schiff Walter C. Sedgwick Katherine Sherrill Caroline N. Sidnam

Loretta M. Stadler Andrew H. Tisch Roselinde Torres Marcel van Poecke Akiko Yamazaki Robert B. Zoellick

EX OFFICIO TRUSTEES

Eric Adams Mayor of the City of New York Brad Lander Comptroller of the City of New York Adrienne E. Adams Speaker, New York City Council Susan M. Donoghue Commissioner, Dept. of Parks and Recreation, City of New York Laurie Cumbo Commissioner, Dept. of Cultural Affairs, City of New York Vanessa L. Gibson Bronx Borough President Antonio Reynoso Brooklyn Borough President Monica P. Medina President and Chief Executive

Officer, Wildlife Conservation

Society

LIFE TRUSTEES

C. Diane Christensen Howard Phipps, Jr. Chair Emeritus David T Schiff Chair Emeritus Mrs. Leonard N. Stern Ward W. Woods Chair Emeritus Barbara Hrbek Zucker

TRUSTEES EMERITI

Eleanor Briggs Jonathan L. Cohen Gordon E. Dyal Bradley L. Goldberg Brian J. Heidtke

WCS COUNCIL

Pamela M. Thye

Robin van Bokhorst

Iohn Barabino Ambassador Barbara Barrett and Craig Barrett Michelle Clayton Diana Dowling Gillian Hearst Angela C. Huang Trevor Kempner Justin F. Korsant Patricia and Alan Koval Terry and Bob Lindsay Eugene R. McGrath Shweta Rawat Alexander T. Robertson Mara Talpins

OFFICE OF THE PRESIDENT

Monica P. Medina President and Chief Executive Felicia Hamerman Special Assistant to the President and CEO & Board Liaison

Robert G. Menzi Interim President and CEO (until June 1, 2023) and Executive Vice President and Chief Operating Officer

Christopher J. McKenzie Senior Vice President, General Counsel, Deputy Secretary

ZOOS & AQUARIUM

James J. Breheny Executive Vice President & General Director, Zoos and Aquarium, and the Jonathan Little Cohen Director of the Bronx Zoo

BRONX ZOO

Lisa Marie Avendaño Deputy Director Keith Lovett Vice President and Director of Animal Programs

OPERATIONS

Michael Kaleda Executive Director of Operations & Facilities

ANIMAL DEPARTMENTS

Colleen McCann

Curator, Mammalogy Donna Doherty Curator of Ungulates and Carnivores, Mammalogy Charles Cerbini Curator, Ornithology Kevin Torregrosa Curator, Herpetology Kathleen LaMattina Curator, Animal Encounters Nilda Ferrer Curator and Registrar, Animal Management Services

CENTRAL PARK ZOO

Craig Piper Vice President and Director of City Zoos Susan Cardillo Curator of Animals

PROSPECT PARK ZOO

Denise McClean Director of Prospect Park Zoo Lonnie McCaskill Curator and Assistant Director

QUEENS ZOO

Michael T. Allen Director of Queens Zoo Craig Gibbs Assistant Curator of Animals **NEW YORK AQUARIUM**

Leigh Ann Clayton Director of New York Aquarium William Hana Director of Animal Programs

ZOOLOGICAL HEALTH PROGRAM

Paul P. Calle Vice President, WCS Health Programs; Chief Veterinarian, & Director of Zoological Health D McAloose Pathology Department Head, and The Schiff Family Distinguished Scientist Michelle R. Davis Aquatic Health Department Head

John M. Sykes IV Clinical Department Head, and The Marilyn M. Simpson Distinguished Veterinarian

EXHIBITS & GRAPHIC ARTS DEPARTMENT

Susan A. Chin Senior Vice President of Strategy and Advancement

EDUCATION

Karen Tingley Director of Education

64 WCS IMPACT REPORT 2023 WCS TRUSTEES AND LEADERSHIP 65

GLOBAL CONSERVATION PROGRAM

Joe Walston Executive Vice President, Global Conservation Program Emma Stokes Vice President, Field Conservation Lisa Yook

Vice President, Global Operations Sandy Andelman Vice President, Conservation

Strategy and Partnerships Nina Holbrook

Chief of Staff to the Executive Vice President, Global Conservation Program

John G. Robinson Joan L. Tweedy Chair in

Conservation Strategu Tyson Aiken

Global Safety & Security Director Mark Gately

Director, Africa Protected Areas Management Unit

Aili Kang

Director, China Strategic Engagement

Rekha Menon Executive Director, Financial

Planning and Analysis Alan Ring

Executive Director, Grants Management and Compliance

Jonathan Palmer Executive Director, Conservation

Technologu David Wilkie

Senior Technical Advisor to the Executive Vice President

CENTRAL AFRICA & GULF OF GUINEA

Christopher Holmes Regional Director, Central Africa & Gulf of Guinea Richard Malonga Republic of Congo Country Director Jean-Paul Kibambe Democratic Republic of Congo Country Director Gaspard Abitsi Gabon Country Director Roger C. Fotso

SUDANO SAHEL

Paul Telfer Regional Director, Sudano Sahel Felin Twagirashyaka Central African Republic

Carlos Durigan

Catalina Gutierrez

Sebastián Valdivieso

Mariana Montova

Mariana Varese

Martín Mendez

Southern Cone

Bárbara Saavedra

TEMPERATE ASIA

Country Director

Dale Miquelle

Representative

Aimin Wang

Colin Poole

Mekong

Alistair Mould

Santi Saypanya

outgoing

Thuy Hoang

Jonathan Slaght

CONE

Brazil Country Director

Colombia Country Director

Ecuador Country Director

Director, Amazon Landscapes

PATAGONIA-SOUTHERN

Regional Director, Patagonia-

Mariano Gonzalez Roglich

Chile Country Director

María del Carmen Fleytas

Paraguay Country Director

Regional Director, Temperate

Asia; Acting Afghanistan

Russia Country Advisor

Baigalmaa Nyamsambuu

China Country Director

Regional Director, Greater

Cambodia Country Director

Thailand Country Director.

Thailand Country Director

Vietnam Country Director

Laos Country Director

Pornkamol Jornburon

Anak Pattanavibool

GREATER MEKONG

Mongolia Country Program

Argentina Country Director

Peru Country Director

Country Director Dolmia Malachie

Chad Country Director

EAST AFRICA, MADAGASCAR & WESTERN INDIAN OCEAN

Luthando Dziba Regional Director, East Africa, Madagascar & Western Indian Ocean

Lovy Rasolofomanana Madagascar Country Director Afonso Madope

Mozambique Country Director Simon Lugandu Tanzania Country Director Simon Nampindo

Uganda Country Director Joseph Ngango

Rwanda Country Representative

ARCTIC BERINGIA

Martin Robards Regional Director, Arctic Beringia

BOREAL REGION

Justina Ray President, WCS Canada and Regional Director, Boreal Region

MESOAMERICA & WESTERN CARIBBEAN

Jeremy Radachowsky Regional Director, Mesoamerica & Western Caribbean Nicole Auil Gomez Belize Country Director Natalia Rossi Cuba Country Director Gabriela Ponce Guatemala Country Director Edgar Herrera Scott Nicaragua Country Director

ANDES, AMAZON, AND **ORINOCO**

Padu Franco Regional Director, Andes. Amazon, and Orinoco Lilian Painter Bolivia Country Director **SOUTH ASIA**

Colin Poole Regional Director, South Asia Zahangir Alom Bangladesh Country Program Representative

MELANESIA

Stacy Jupiter Regional Director, Melanesia; Acting Solomon Islands Country Lead Paul van Nimwegen Fiji Country Director Jennifer Baing Papua New Guinea Country

SOUTHEAST ASIAN ARCHIPELAGO

Director

Martin Callow Regional Director, Southeast Asian Archipelago Noviar Andayani Indonesia Country Director Mark Rayan Darmaraj Malaysia Country Director Kate Lim

Philippines Country Representative

EUROPE

France

Molly Crystal Director, Strategic Partnerships, Germany Janice Weatherley-Singh Director, WCS EU Emilie Fairet Director, Strategic Relations,

GLOBAL CONSERVATION PROGRAM

FORESTS & CLIMATE CHANGE

Simon Cripps Daniel Zarin Executive Director Kemen Austin Director, Science Ashley Camhi

Director, Innovative Climate Finance Tom Evans

Senior Director, Forest Conservation Tim Ravden

Forest Restoration Lead Carlos Rittl

Director, Public Policy Elizabeth Tully

Associate Director. Climate Adaptation Fund

HEALTH

Chris Walzer Executive Director, Health Program Amanda Fine Director, One Health Lucy Keatts Associate Director, Health Program

> Sarah Olson Director, Health Research

MARINE

Executive Director, Marine Conservation Pamela Castillo Director, Marine 30x30 Program **Emily Darling** Director, Coral Reef Conservation Hovt Peckham Director, Community Fisheries Howard Rosenbaum Director, Ocean Giants

COUNTER WILDLIFE TRAFFICKING

Director, Sharks and Rays

Luke Warwick

Scott Roberton Executive Director, Counter Wildlife Trafficking Damian Weekers Research and Analysis Coordinator Penny Wallace-Patterson Program Manager

RIGHTS & COMMUNITIES

Sushil Rai Executive Director, Rights and Communities Heidi Kretser

Director, Rights and Communities - Global

Michelle Wieland Director, Rights and Communities - Africa

MARKETS

Todd Stevens Executive Director, Business Planning and Markets Ray Victurine Director, Business and Conservation Sarah Walker REDD+ and Forest Carbon Lead

Stephanie Wang Associate Director, Climate Finance Policy

INTERNATIONAL POLICY

Susan Lieberman Vice President, International

Policy Alfred DeGemmis

Director, International Policy Michel Masozera

Director Policy and Institutional Partnerships, Africa

SPECIES CONSERVATION

Elizabeth L. Bennett Vice President, Species Conservation Luke Hunter Executive Director, Big Cats Program

SENIOR CONSERVATION **SCIENTISTS**

Joel Berger Graham Harris

Dale Lewis Fiona Maisels Tim McClanahan Nyawira Muthiga

Rob Wallace

GLOBAL RESOURCES

Paula Haves Executive Vice President and Chief of Global Resources

Carolyn Gray Vice President, Institutional Advancement

Stephen Ham Vice President. Individual Giving Tiana Norgren

Vice President, Strategic **Operations**

Theresa Duncan Senior Director of Individual Giving, Western Region Jessica Sewell Senior Director, Corporate

Engagement

Bruno Nouril Director. Individual Giving Emily Hirshbein Director, Planned Giving

PUBLIC AFFAIRS

John F. Calvelli Executive Vice President for Public Affairs Mary A. Dixon Senior Vice President, Communications Sara Marinello Vice President, Government & Community Affairs

Kathi Schaeffer Executive Director, Public Affairs and Partnerships Madeleine Thompson Director, Library & Archives

ADMINISTRATIVE / FINANCIAL SERVICES

Robert G. Menzi Interim President and CEO (until June 1, 2023) and Executive Vice President and Chief Operating

Officer Laura Stolzenthaler Senior Vice President and Chief Financial Officer Jelle Boot

Vice President, Human Resources

Financial Services Karen Feldman Vice President of Budget and Financial Planning Niko Radjenovic Vice President, Business Services Kevin Wells Chief Diversity Officer

Robert Calamo

WCS TRUSTEES AND LEADERSHIP 67

66 WCS IMPACT REPORT 2023

Cameroon Country Director

Nigeria Country Director

Andrew Dunn

Vice President and Comptroller,

Ways to Give

PRESIDENT'S CIRCLE

WCS is pleased to recognize those who contribute annual gifts of \$25,000 as part of the President's Circle. At this level of giving, you receive all the benefits of Conservation Patrons, plus exclusive invitations and insider access to WCS leadership and Program experts.

For more information, contact Stephen Ham at 718 741 1619 or SHam@wcs.org.

CONSERVATION PATRONS

WCS's Conservation Patrons who donate a gift of \$1,500 or greater annually receive exclusive updates and access to insider events to learn how your support is advancing our mission, as well as recognition in the WCS Impact Report.

For more information, visit wcs.org/Patrons or contact Alec Bandzes at 718 220 5085 or Patrons@wcs.org.

CORPORATE PARTNERSHIP & ENGAGEMENT

WCS Corporate Partners provide vital operating support of our conservation efforts through philanthropic giving, corporate membership, sponsorship, and cause marketing. Partnerships with WCS help corporations gain brand exposure, consumer loyalty, and community engagement, while aligning with an important cause that resonates with their consumers, employees, and investors.

For more information, contact Jessica Sewell at JMSewell@wcs.org or send an inquiry to Corporations@wcs.org.

PLANNED GIVING

You can build a conservation legacy by designating WCS as a beneficiary in your will or trust. You can also name WCS as a beneficiary of your individual retirement account, life insurance policy, donor-advised fund, or brokerage account.

For more information, contact Emily Hirshbein at 718 741 1628 or EHirshbein@wcs.org.

NAMING OPPORTUNITIES

There are exhibits, galleries, and benches available for naming within well-loved spaces at our five wildlife parks. Naming an animal is also a unique way to provide critical support for the care, enrichment, and health of the animals at WCS's Bronx Zoo, Central Park Zoo, Queens Zoo, Prospect Park Zoo, and New York Aquarium.

For more information, contact Stephen Ham at 718 741 1619 or SHam@wcs.org.



Learn more about these giving programs at

wcs.org/waystogive

For information on how you can support the Wildlife Conservation Society, please call our Global Resources Division at 718 220 5090 or visit wcs.org. A copy of this annual report may be obtained by writing to the Chair of the Board, Wildlife Conservation Society, 2300 Southern Boulevard, Bronx, New York 10460. In addition, a copy of the WCS's annual filing with the Charities Bureau of the Office of the New York State Attorney General may be obtained by writing to the Charities Bureau, New York State Attorney General's Office, 3rd Floor, 120 Broadway, New York, New York 10271. The report can also be found online at wcs.org.

SUGGESTED FORM OF BEQUEST

The Trustees of the Wildlife Conservation Society suggest that, for estate-planning purposes, members and friends consider the following language for use in their wills:

"To the Wildlife Conservation Society ("WCS"), a not-for-profit, tax-exempt organization incorporated in the state of New York in 1895, having as its principal address 2300 Southern Boulevard, Bronx, New York 10460 and tax identification number EIN: 13-1740011, I hereby give and bequeath [the sum of \$_____ OR _____ percent of my estate] to be used as determined by WCS for its general purposes."

In order to help WCS avoid future administrative costs, we suggest that the following paragraph be added to any restrictions imposed on a bequest:

"If at some future time, in the judgment of the Wildlife Conservation Society, it is no longer practical to use the income and/or principal of this bequest for the purposes intended, WCS may use the income and/or principal for whatever purposes it deems necessary that is most closely in accord with the intent described herein."

If you wish to discuss the language of your bequest and other planned giving options, please contact the Office of Planned Giving at 718 220 6894.

Front Cover African lion

Back Cover

Holiday Lights at the Bronx Zoo

CREDITS

Vice President for Strategic Operations: Tiana Norgren

Director, Donor Communications & Marketing: Mary Deyns Brandão **Writers:** Christine Westphal, Jennifer Stenzel, Victoria Merlino, Miriam Horn

Designer: Lena Chen

Staff Photographer: Julie Larsen **Printer:** Graphic Management Partners

With deep appreciation to the many contributors to this publication, including:

Wenddy Acahuana, Fahrul Paja Amama, Marcos Amend, Noviar Andayani, Elizabeth L. Bennett, Joel Berger, Jim Breheny, Jhoan Bravo, Jeanne Brown, Paul Calle, Martin Callow, Merry Camhi, Maria Carbo, Pamela Castillo, Peter Clyne, Noah Chesnin, Susan Chin, Leigh Ann Clayton, Morgane Cournarie, Simon Cripps, Margaret Curran, Emily Darling, Sophie Dirou, Andrew Dunn, Carlos Durigan, Luthando Dziba, Ben Evans, Padu Franco, Catalina Gutiérrez, Felicia Hamerman, Nina Holbrook, Christopher Holmes, Miriam Horn, Luke Hunter, Pornkamol Jornburom, Stacy Jupiter, Lucy Keatts, Deo Kujirakwinja, Danielle LaBruna, Lishu Li, Susan Lieberman, Keith Lovett, Richard Malonga, Sara Marinello, William Marthy, Stephen Martinelli, Lonnie McCaskill, Paola Andrea Mejía Falla, Robert G. Menzi, Aaron Nicholas, Faye O'Brien, Anak Pattanavibool, Esteban Payán, Colin Poole, Jeremy Radachowsky, Nick Radford, Sushil Raj, Justina Ray, Tim Rayden, Amy Roll, Howard Rosenbaum, Kathi Schaeffer, Colin Sheldon, Avishai Shuter, Nicholas Spencer, Todd Stevens, Laura Stolzenthaler, John Sykes, Madeleine Thompson, Karen Tingley, Kevin Torregrosa, Eric Traub, Melissa Vega, Chris Walzer, Luke Warwick, Lindsey Watcham, Kevin Wells, Linda Wied, Haley Williams, Dan Zarin

PHOTO CREDITS

Front cover © Marie-Luce Hubert and Jean-Louis Klein/Nature Picture Library; inside front cover © Tracey Jennings/Ocean Image Bank; p. 2 © Gillian Santink/Shutterstock; p. 3 Julie Larsen © WCS; p. 4–5 Julie Larsen © WCS; p. 10–11 © Joe McDonald/Getty Images; p. 12 (top) Courtesy of the Library of Congress, (bottom left to right) Julie Larsen © WCS, © Ramki Sreenivasan, Julie Larsen © WCS, © Mathias Appel; p. 13 © Ellen Cuylaerts/Ocean Image Bank; p. 14 (top) © Javier Silva, (bottom) © Hari K Patibanda; p. 15 (top, bottom) Julie Larsen © WCS; p. 16 Courtesy of Lishu Li; p. 17 © Scott Ramsay/WCS; p. 19 © DNP/WCS Thailand; p. 20 © Alex van Schaik/ Shutterstock; p. 22 Courtesy of Jhoan Bravo; p. 23 © Forest P. Hayes; p. 24 © R. Mansur/WCS; p. 25 © WCS Ocean Giants; p. 26 (left, right) © WCS; p. 27 (top) © Stephen Sautner/WCS, (bottom) © WCS Ocean Giants; p. 28–29 © Scalia Media/Shutterstock; p. 31 (top left) © WCS Indonesia, (top right) © Eleanor Briggs/WCS, (bottom) © Don Mammoser/Shutterstock; p. 32 Courtesy of Deo Kujirakwinja; p. 33 © Alec Hughes/WCS; p. 34–35 © Marcos Amend/WCS; p. 36 © Erika Piñeros/WCS; p. 37 (top left) © Peter Kyne/Charles Darwin University, (top right) © Choups/ Alamy Stock Photo, (bottom left) © Amanda Cotton/Ocean Image Bank, (bottom right) © Rafael Paredes Montesinos; p. 38 © IBIS Rice; p. 39 (top) © IBIS Rice, (bottom) © Phan Sithan; p. 40 (top to bottom) © Marcos Amend/WCS, © Michael Oldham, © Brook Peterson/Ocean Image Bank; p. 41 (top) © Guilhem Duvot/WCS, (bottom) © WCS; p. 42 (left) © WCS Peru, (right) © F. Monteau/ WCS; p. 43 (left) © WCS Vietnam, (right) © Gabriel Gelin/WCS; p. 44 (top row, left to right) © Ellen Cuylaerts/Ocean Image Bank, © Bryan Toro/iStock, © Ajit S N/Shutterstock, (bottom row, left to right) © Lunamarina/Shutterstock, © WCS Ocean Giants, Julie Larsen © WCS; p. 45 © Artie Raslich Photography; p. 46–47 Julie Larsen © WCS; p. 48–49 © littlenySTOCK/Shutterstock; p 50-53 © WCS; p. 54 Julie Larsen © WCS; p. 55 Julie Larsen © WCS; p. 56 (top) © Mufti Adi Utomo/ Shutterstock, (Burmese star tortoise) © D. Horne/WCS, (all else) Julie Larsen © WCS; p. 57 Julie Larsen © WCS; p. 58 Courtesy of Kevin Torregrosa; p. 59 Julie Larsen © WCS; p. 60 © Mailen Palma; p. 64-65 Julie Larsen © WCS; back cover Julie Larsen © WCS

Additional information about WCS, including a list of our professional publications for 2021 and 2022, can be found at wcs.org.

