

Mission Vision WCS saves wildlife and wild places worldwide WCS envisions a world where wildlife thrives through science, conservation action, education, in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on earth. and inspiring people to value nature.

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Additional information about WCS, including a digital version of this booklet with convenient hyperlinks, can be found online at wcs.org.

Foreword

We Stand for Wildlife.®

WCS addresses conservation from all angles. We harness the power of our field programs and zoological parks in New York City to save wildlife in nearly 60 nations and across the world's ocean. Our staff—including biologists, curators, zookeepers, veterinarians, educators, and dozens of other professions—have dedicated their lives to understanding and improving the health of the planet since our founding as the New York Zoological Society (NYZS) in 1895.

Our programs are selected to maximize our resources for greatest impact, focusing on 14 priority regions where we work that are pivotal to safeguarding our world's natural heritage. We work to ensure the protection of nature's strongholds—those wild places on land and in the sea that are most important for wildlife and are sufficiently intact to maintain their ecosystems and biodiversity long term.

That focus is essential if we are to help break through the bottleneck constricting nature that has resulted from population growth and economic development in the modern era. We know that even as Earth's human population expands, its rate of growth is declining in most continents and should stabilize over the next century—in part due to expanding education and empowerment of women. Urbanization has helped to reduce extreme poverty and unsustainable resource use.

These shifts in demographic and economic trends that previously resulted in environmental destruction now create the conditions for a renaissance of nature if we act wisely.

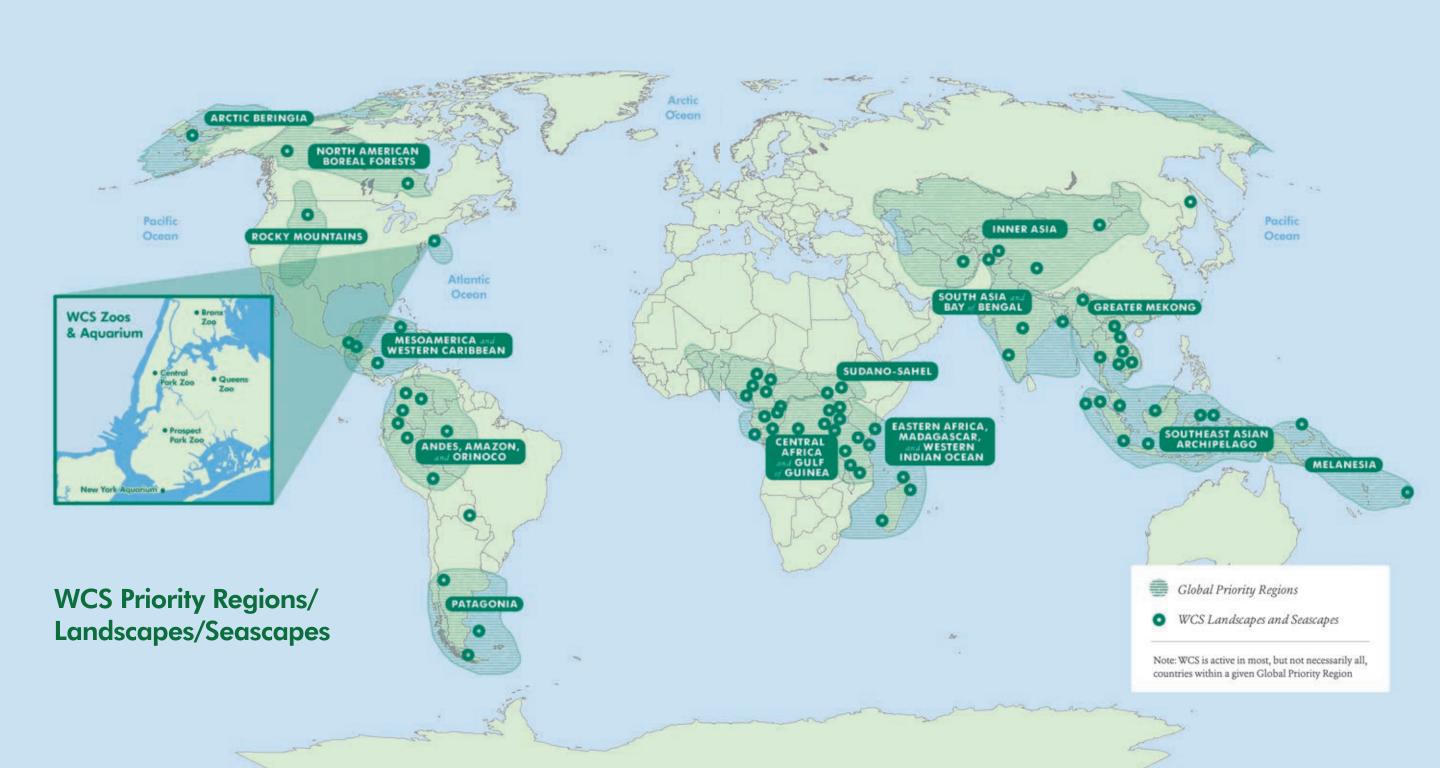


Using science and our wildlife expertise in the field and in our zoos and aquarium, WCS has supported governments and communities in the creation or expansion of 268 national parks and protected areas—from the remote mountains of Afghanistan to the windswept wilderness of Chile's Tierra del Fuego.

In New York City, we have welcomed more than 400 million guests to our four zoos—the Bronx Zoo, Central Park Zoo, Prospect Park Zoo, Queens Zoo—and our recently expanded New York Aquarium. By connecting our visitors with wildlife, our parks inspire empathy and a sense of urgency and action. Our guests in turn support conservation field programs around the world through their advocacy and financial support.

Our legacy of science-driven conservation is strengthened by collaborations with indigenous and local communities, governments, other NGOs, the private sector, and multilateral entities like the United Nations. We support countries in the implementation of the Sustainable Development Goals, the UN Convention on Biological Diversity, and CITES.

Our planet's challenges are greater than ever, but with the focus, dedication, and passion of a committed staff—with a unique mixture of field, zoo and aquarium expertise—WCS will continue to set the bar for wildlife conservation.



"Over its proud 125-year history, WCS has significantly helped to advance wildlife conservation around the globe in partnership with governments and local communities. New York would not be New York without the Bronx Zoo, and the cause of wildlife conservation would not be what it is without your efforts."

—U.N. SECRETARY GENERAL BAN KI-MOON



WCS Priority Regions/Landscapes/Seascapes



Arctic Beringia

Arctic coasts and seascapes of Alaska, western Canada, and northeastern Russia

Rocky Mountains

Forests, grasslands, and riparian systems from southern Canada to the US-Mexico borderlands

North American Boreal Forests

Boreal forests, mountains, and peatlands of Canada and Alaska

Mesoamerica and Western Caribbean

Forests, coasts, and coral reefs of Belize, Cuba, Guatemala, Honduras, and Nicaragua

Andes, Amazon, and Orinoco

Forests, grasslands, and wetlands of Bolivia, Brazil, Colombia, Ecuador, Peru, and Venezuela

Patagon

Landscapes, coasts, and seascapes of southern Chile and Argentina

Central Africa and Gulf of Guinea

Forests and coasts of Equatorial Guinea, Gabon, Republic of Congo, and Democratic Republic of Congo

Sudano-Sahe

Savannahs, woodlands, forests, and wetlands of Nigeria, Cameroon, Chad, Central African Republic, and South Sudan



Eastern Africa, Madagascar, and Western Indian Ocean

Savannahs, forests, and woodlands of Uganda, Kenya, Rwanda, Tanzania, and Mozambique; and coasts and coral reefs of Kenya, Tanzania, Mozambique, and Madagascar

South Asia and Bay of Bengal

Forests, mountains, and coasts of Pakistan, India, and Bangladesh

Inner Asia

Forests, grasslands, and mountains of Afghanistan, Mongolia, the Tibetan Plateau of China, and the countries of Central Asia

Greater Mekong

Forests, grasslands, wetlands, and coasts of Cambodia, Laos, Myanmar, Thailand, Vietnam, and southern China

Southeast Asian Archipelago

Forests, coasts, and coral reefs of Indonesia and Malaysia

Melanesia

Highlands and islands of Fiji, Papua New Guinea, and Solomon Islands

"The Wildlife Conservation Society is one of the most impressive, foremost organizations working to save the world's wildlife."

—SIR DAVID ATTENBOROUGH



Our Strategy

WCS's conservation strategy endeavors to protect some of the most important wildlife and wild places on the planet. To achieve that goal, we work in two parallel tracks of equal importance.

In its field work, WCS seeks to conserve 14 intact regions on land and in the sea, while reversing the decline of six priority species groups: elephants, apes, big cats, sharks & rays, whales & dolphins, and tortoises & freshwater turtles.

In New York City, we manage the largest network of urban wildlife parks. As we partner with other zoos and aquariums to inspire people to save wildlife, we are galvanizing a growing conservation movement.

WCS's conservation strategy has three core pillars: to Discover, to Protect, and to Inspire.

DISCOVER: Through science, WCS produces and disseminates the information and knowledge necessary to inform and improve conservation and management action in the wild places we seek to conserve and to measure the impact of our work.

PROTECT: Through conservation action and the creation of protected areas, WCS secures biological diversity across the globe with a broad range of interventions that include impeding the trafficking of wildlife, mitigating the impacts of climate change, and supporting local livelihoods.

INSPIRE: Through engaging zoo and aquarium experiences, stimulating education programs, and powerful digital and media tools, WCS activates a diverse and empowered global audience invested in protecting wild nature.

"The urgency to preserve the world's wildlife and the intricate balance of species and the systems that all lives depend on demands that we go beyond conservation as usual. To succeed, we must stay focused on our mission while realizing our work cannot be implemented without partners."

—CRISTIÁN SAMPER, WCS President & CEO





EMBRACING A CONSERVATION MISSION

WCS manages five wildlife parks in New York City: the world famous Bronx Zoo, the New York Aquarium, the Central Park Zoo, the Prospect Park Zoo, and the Queens Zoo. Our diverse audience represents all ages, ethnicities, and economic strata.

That reach enables us to provide up-close encounters with wildlife to many people who might otherwise never have an opportunity to experience the magnificence of a tiger or the grace of a shark eye-to-eye.

Connecting people to animals and nature is core to our work, reinforced since 2017 through Animal Planet's television docu-series "THE ZOO," which takes viewers behind the scenes at the Bronx Zoo.

Our parks meet the highest standards of care as we work to maintain genetically viable and sustainable populations of rare species as a hedge against extinction while training the next generation of zoological professionals.

"As AZA zoos and aquariums, we do not exist to be well run menageries; we have a higher purpose, and that higher purpose is the conservation of species in the wild.... We must manage the species we keep sustainably for the future; and we must connect our animals and exhibits to species in the wild and inspire and empower our visitors to support our efforts to save them."

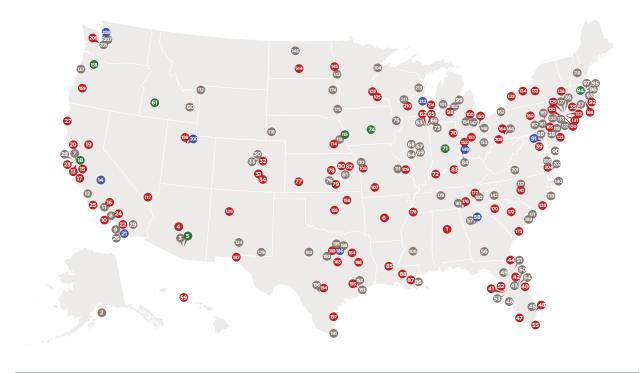
—JIM BREHENY

WCS Executive VP for Zoos & Aquarium and Director of the Bronx Zoo



Since 2012, more than 10,000 Kihansi spray toads bred at the Bronx and Toledo Zoos have been released into their former Tanzania habitat after going extinct in nature.

WCS-AZA Partnerships



Out of 214 AZA members, WCS has:

● 124
96 Elephants partners field-conservation partners

WCS launched the 96 Elephants campaign in 2013 to help stop the killing, trafficking, and demand for elephant ivory taken from elephants poached in Africa at a rate of 96 per day. A large portion of the campaign's more than 170 partners are members of the Association of Zoos and Aquariums (AZA).

With strategic and tactical support that includes legislative counsel, an updatable digital toolkit, media opportunities, public-relations templates, campaign

96 Elephants and field AZA Macconservation partners

AZA Members

collateral, and exhibitions, we have been able to help our partners to reach their audiences with unified campaign messaging.

This effort has been critical in passage of intrastate bans on commercial ivory trade in the nation's biggest markets, including New York, New Jersey, California, and Hawaii. These efforts combine with a successful federal US ivory ban that helped lead the way to similar bans in China, Hong Kong, and the UK.



CONSERVING WILDLIFE AND WILD PLACES

Because protected areas present the most effective means of securing natural ecosystems, more than 80 percent of WCS's site-based fieldwork is targeted there. When well-managed and funded these places can reduce the loss of natural habitat, sustain wildlife populations, and improve livelihoods around them.

WCS provides the scientific basis to help countries identify and establish protected areas, to understand where such areas need to be expanded and connected, and to help countries effectively manage them for the long-term through technical advice, monitoring, and financial mechanisms.

While protected areas are necessary for conserving nature, by themselves they are often not extensive enough to sustain the complete biodiversity and the range of ecosystem services. For that reason we must operate at a landscape and a seascape scale in the areas surrounding the protected areas where we work.

"WCS is first and foremost dedicated to providing scientific knowledge, technical assistance, and management expertise required to conserve the remaining wild places on earth and the species that live there."

—JOHN ROBINSON WCS Executive VP for Conservation and Science



REDUCING BIODIVERSITY LOSS

WCS also tackles drivers of biodiversity loss that include climate change, the illegal wildlife trade, and wildlife disease.

Climate Change

We apply our science to discover how best to limit the impacts of climate change on ecosystems, wildlife, and people—increasing resilience and providing insurance against a rapidly changing world.

Illegal Wildlife Trade

We use our local presence and global influence to stop wildlife poaching, block trafficking across transit routes, and reduce demand for wildlife and wildlife products.

Wildlife Disease

We use our global health expertise to investigate and combat diseases that move between people, domestic animals, and wildlife and threaten the health of all.





MEASURING IMPACT (SCIENCE)

WCS is the world's premiere science-based conservation organization and we hold ourselves accountable for reporting the impacts of conservation efforts both within protected areas and the larger landscapes and seascapes where we work. WCS's traditional boots-on-the-ground presence allows us to measure our success in achieving desired conservation impacts.

SUPPORTING LOCAL COMMUNITIES

WCS works with local and government partners across the planet to ensure that wildlife conservation helps to sustain incomes and livelihoods of local people, secure ancestral lands, and reduce human-wildlife conflict. Respectful engagement with Indigenous Peoples is core to our work, and we share an interest in conserving the intact places they call home.

SUSTAINABLE FINANCE

WCS creates business plans to identify the costs of implementing protected area management efficiently. In addition, WCS works closely with governments to develop national-level conservation financing plans that leverage public and private investment opportunities aimed at achieving conservation outcomes.

WCS's Protected Area Legacy: 268 PAs Created or Expanded Since 1895

More than a century ago, a bold idea was developed in the United States by a group of visionary leaders: Set aside some of the most beautiful natural areas and protect them from development to ensure that they will be around for future generations. Writer Wallace Stegner called it "America's best idea."

The first national parks, created largely to preserve their scenic beauty, resulted in the protection of such iconic places as Yosemite and Yellowstone. Since that time, the concept of safeguarding critical wild places has taken hold around the world.

WCS currently helps to manage more than 370 protected areas. Since our founding in 1895, WCS has used its expertise in the field and in our zoos and aquarium to help create or expand close to 270 protected areas, six of which are highlighted on these pages.

Today 15 percent of land and 6 percent of the ocean fall under nationally designated protection—twice the amount as in 1992. WCS researchers determined that more than one-third of protected areas on land are under intense human pressure and unlikely to be serving their conservation function.

To combat this growing threat, we must improve management and monitoring in protected areas. This requires greater funding, capacity, and technology. It's a challenge felt especially in developing countries confronting urgent social and economic needs while holding some of the world's last great strongholds of nature.

Highlights



GRAND TETONS NATIONAL PARK

WCS founds the Jackson Hole Wildlife Park. Will be gifted to the National Park Service to become part of Grand Tetons National Park in 1962.

USA 1946

Bahamas 1959



EXUMA CAYS

Work by WCS helps in establishment of the Exuma Cays National Park, the world's first land-and-sea park, in the Bahamas.



COCKSCOMB BASIN

The world's first jaguar reserve is created following two years of research and conservation by WCS.



GABON

With WCS's assistance, Gabon launches network of marine parks covering about 23 percent of its territorial waters and Exclusive Economic Zone, within which no commercial fishing will be allowed.

Belize 1984

Gabon 2014

Democratic Republic of Congo 1992



THE OKAPI WILDLIFE RESERVE

Work by WCS helps establish 5,300-square-mile Okapi Wildlife Reserve, covering a significant part of the okapi's range in the Ituri Forest of present-day Democratic Republic of Congo.

Afahanistan 2009



BAND-E-AMIR NATIONAL PARK

WCS works with conservation and government partners to help create Afghanistan's first national park, which soon brings on board the nation's first women wildlife rangers.

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WCS'S PROTECTED AREA LEGACY | 11



Conservation Impact

WCS has worked for over a century to protect wildlife and wild places. We developed some of the world's first conservation programs in collaboration with local, scientific, and government partners.

WCS now works in nearly 60 countries and across the world's ocean, concentrating on the planet's most important, ecologically intact places with the greatest biodiversity and resilience to climate change. Our goal is to conserve these last strongholds for a set of iconic flagship species, deeply valued for themselves and critical to the functioning of ecological systems.

Our conservation solutions draw on the unrivalled expertise of our field biologists and our zoo- and aquarium-based veterinarians, curators, and animal care staff. Our work is grounded in best-inclass science, and in strong partnerships with governments, local communities, and indigenous groups to build conservation capacity and support local livelihoods. We stay as long as it takes to get the job done because conservation is not a short-term endeavor.

To design effective programs with clearly defined goals and measurable outcomes, WCS conservationists build upon the efforts of their predecessors with new knowledge gained working in the field. They have deep connections to the places where they work, whether by birth or as forged over decades of contact with local colleagues.

To celebrate the impact we have achieved, we highlight five species or species groups whose conservation WCS has long championed: the gentle giant, the gorilla; the ocean's crooner, the humpback whale; Latin America's sleek carnivore, the jaguar; Africa's mighty elephant; and Myanmar's resurgent Burmese star tortoise.



SPOTLIGHT SPECIES

Gorilla

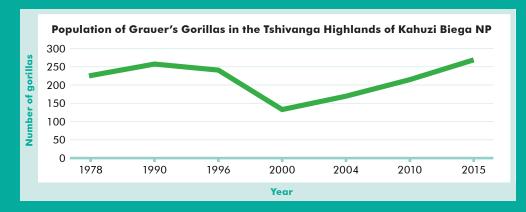
Gorillas are so closely related to humans that it is no wonder they have fascinated us in so many ways for so long. From George Schaller's seminal studies of mountain gorillas in the Albertine Rift in 1959, to Amy Vedder and Bill Weber's research that drove the creation of a groundbreaking gorilla tourism initiative, to Emma Stokes's 2006 report of more than 125,000 western lowland gorillas in the northern Republic of Congo, WCS has been a leader in gorilla conservation for more than half a century. During that time, WCS has worked to conserve both gorilla species (eastern and western) and all four Critically Endangered gorilla subspecies, focusing efforts on the most threatened populations. Since opening in 1999, the Bronx Zoo's 6.5-acre Congo Gorilla Forest has informed millions of guests about the threats facing gorillas in the wild and raised more than \$15 million for conservation programs in Africa.

Over the past five decades, ecotourism efforts focused on mountain gorilla populations in Rwanda, Uganda and the Democratic Republic of Congo (DRC) have helped this great ape's numbers rebound. More recently, WCS has helped reduce threats to mountain gorillas in Uganda's Bwindi Impenetrable National Park, one of only two strongholds for the entire subspecies. Despite the heavy toll on Grauer's gorillas due to hunting, recent work by WCS shows that in the highland sector of DRC's Kahuzi-Biega National Park, gorilla numbers have increased by about 20 percent due to effective monitoring and protection, strategically targeted conservation efforts, and the expansion of a well-trained and equipped surveillance team.

The 2006 announcement of some 125,000 western lowland gorillas in the northern Republic of Congo by Emma Stokes and her team of WCS conservationists, including the discovery of important populations in remote unprotected forests, led to the creation of the Ntokou-Pikounda National Park by the Government of Congo. In 2008, WCS pioneered the use in Cameroon

of Gorilla Guardians, a community-based network to monitor Cross River gorilla populations and protect them from poachers. A similar initiative in Nigeria, the Mbe Mountains Community Wildlife Sanctuary, provides eco-guard monitoring while promoting conservation awareness.





Grauer's gorilla numbers at one site have **grown by about 20%** due to regular monitoring and protection.



Cross River gorillas (Gorilla gorilla diebli) occupy the rugged and remote green highlands that straddle the border of Nigeria and Cameroon and represent the last stronghold for the first of two western Africa gorilla subspecies. Cross river gorillas are the rarest great ape on the continent, with as few as 250 individuals remaining. Once believed extinct, these apes were rediscovered by John Oates and others in the 1980s.

Western lowland gorillas (Gorilla gorilla gorilla) are familiar to anyone who has visited the Bronx Zoo's Congo Gorilla Forest. The most widespread and numerous of all gorilla subspecies, these great apes inhabit the forests of Gabon, the Republic of Congo, Cameroon, Equatorial Guinea, the Central African Republic, small areas of the Democratic Republic of Congo, and Angola. WCS has been conducting pioneering research on western lowland gorillas for almost three decades and working with national governments to ensure their protection.

Mountain gorillas (Gorilla beringei beringei) are one of two eastern Africa gorilla subspecies and have been listed as Critically Endangered since 1966. In 1959–60, as an independence struggle raged in the former Belgian Congo (now the Democratic Republic of Congo, or DRC), WCS-supported conservationist George Schaller completed the first survey of mountain gorillas in the Virunga Volcano landscape on the borders of DRC, Uganda, and Rwanda.

Grauer's gorillas (*Gorilla beringei graueri*), the other eastern gorilla subspecies, live only in eastern Democratic Republic of Congo. Inhabiting lower elevations than their mountain cousins, this great ape was first surveyed by George Schaller in 1959 before being recognized as its own subspecies. Later surveys led by Jefferson Hall identified as many as 17,000 Grauer's gorillas in 1995 before the more recent losses sustained due to hunting outside of Kahuzi-Biega N.P.

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SPOTLIGHT SPECIES

Humpback Whale

Humpback whales (*Megaptera novaeangliae*) inhabit all of the world's oceans and are distributed around the globe in a number of distinct populations. Reaching up to 50 feet in length, humpbacks are characterized by their unusually long pectoral fins and epic migrations from their polar feeding grounds to the calving grounds in tropical and subtropical waters. These baleen whales are also favorites of the world's whale-watching community and known for their breaching and other acrobatic behaviors. In previous centuries, humpback whales were sought after not as ecotourism attractions but as sources of blubber and other body parts by commercial whaling fleets. Humpback whales were extensively hunted before they began to receive much-needed protections starting in the 1960s, when their ethereal vocalizations, or "songs," attracted wide interest from the public.



WCS's work with humpback whales can be described as a journey from discovery to recovery for these ocean giants. A 1931 analysis of commercial whaling catch logs by Charles Townsend—first director of the New York Aquarium for the New York Zoological Society, or NYZS (now WCS)—provided important insights into the distribution of humpback and other whale species in the world's oceans. These studies became the foundation for later whale conservation.

In 1966, NYZS conservationists Roger and Katy Payne began a five-year study of humpback whales. The Paynes were the first to discover the compositional structure of humpback whale "songs" and study the songs' role in humpback whale behavior and mating systems. Their research led to a commercial record, "Songs of the Humpback Whale," which helped popularize the movement to "Save the Whales" that culminated in the commercial whaling ban of 1982.

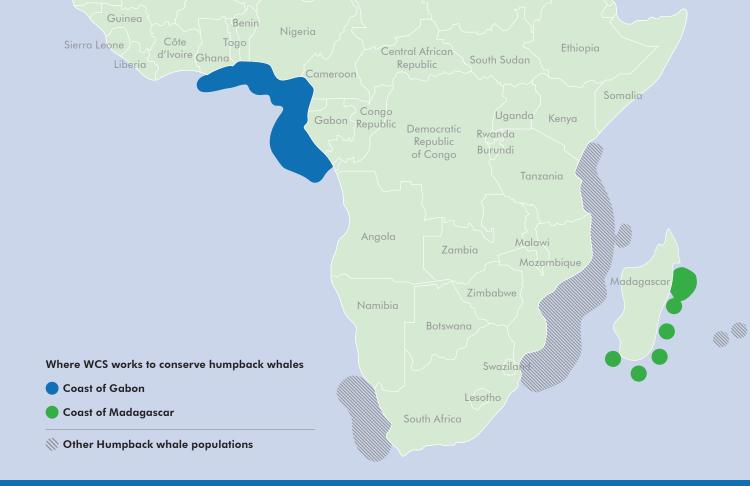
Beginning in the 1990s, WCS conservation biologist
Howard Rosenbaum initiated new research on
hitherto unstudied humpback whales of the Southern
Hemisphere, along with extensive genetic analysis
of whale populations in partnership with the American
Museum of Natural History, Agence Nationale des
Parcs Nationaux of Gabon, and other partners.
To evaluate present-day stocks, Rosenbaum used
Townsend's logs and maps as tools to identify promising
study sites and key wintering grounds.

Using data collected during field surveys—including photographic identification of individual whales, acoustic recordings, genetic analysis of biopsy samples, and satellite telemetry—Rosenbaum and WCS teams uncovered previously unknown connections and differences between populations traveling throughout the waters of the South Atlantic and Indian Oceans.

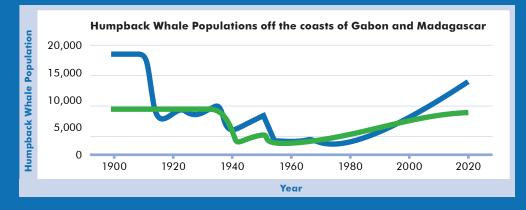
After 20 years of this research, their results showed that humpback populations occurring in the waters of coastal Gabon and Madagascar (and the breeding populations to which they belong) might have recovered to as much as 70 percent and 90 percent of their prewhaling numbers, respectively.

Today, all but four of the world's humpback whale populations have been removed from the U.S. Endangered Species List. Recent work in the Arabian Sea shows that this small, non-migratory population is genetically isolated, prompting WCS and its partners to urge international agencies to formulate additional management provisions to safeguard them. Both globally and in the New York Seascape, WCS marine scientists are working to protect humpback whales from threats that include ocean noise, ship strikes, and entanglement in fishing gear.





Humpbacks in Gabon and Madagascar may have recovered to as much as **70** and **90** percent of pre-whaling levels.



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SPOTLIGHT SPECIES Jaguar The top carnivore of the tropical Americas, the jaguar (Panthera onca) occupies almost two-thirds of its pre-1900 range between the semi-arid scrub forests of Mexico and the flooded forests of the Amazon. Two threats have taken a heavy toll on the Americas' largest cat species: habitat depletion due to the conversion of forest for development and agriculture, and retaliatory killing in response to the loss of livestock. And jaguars face a growing threat today from illegal hunting for their body parts for trade. The jaguar is now nearly absent from the United States in the northern part of its range and restricted to the extreme northern limits of Argentina in its southern range, while it has been eliminated across much of its historic range in Central America.

For more than three decades, WCS has worked to conserve jaguars in their critical strongholds. Because large top carnivores need a lot of space, successful conservation requires keeping substantial areas of forest habitat intact, including beyond the boundaries of protected areas.

To this end, we have worked to support Indigenous Peoples who manage lands that neighbor protected areas. For example, in Bolivia's Greater Madidi landscape, WCS has supported the Tacana and other local people in securing land rights, reducing deforestation in their territory, and maintaining suitable habitat for jaguars.

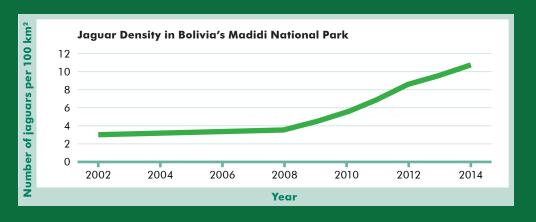
We complement this effort with assistance to law enforcement to reduce the incidence of illegal hunting, and to ranchers to reduce human-jaguar conflict. All told, we are working with our partners to protect 5,000 jaguars and 400,000 square kilometers of jaguar habitat—from northern Paraguay to northern Central America.

Jaguar populations remained stable or grew steadily at all sites where WCS was active between 2002 and 2016. The population growth rate averaged 7.8 percent a year across all such sites, with a 3-fold increase in Bolivia's Madidi National Park alone. These results bode well for the future of jaguars.





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SPOTLIGHT SPECIES

African Elephant

The African elephant (*Loxodonta africana*) population, including both savannah and forest elephants, declined from about 1.3 million to 415,000 between 1979 and 2016 despite a ban on international commercial trade in ivory adopted in 1989 by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). As criminal trafficking networks expanded to meet rising demand for ivory in Asia, WCS launched its 96 Elephants campaign, which helped achieve U.S. bans on commercial ivory trade at the federal and state levels, while our International Policy team led in advocating for similar domestic bans through CITES and across the globe. On the ground in 15 African elephant range states, WCS is continuing to help local communities co-exist with elephant populations, train ecoguards, implement new technologies to aid local law enforcement, and assist governments in disrupting criminal trafficking networks.

Led by WCS conservationist Charles Foley, WCS has been monitoring elephants in Tanzania's Tarangire National Park since 1993. Between 2005 and 2017, the northern sub-population grew by an average of 4.8 percent each year, and in the entire length of our study of these animals, not a single female or juvenile elephant has been lost to poaching. This is one of the rare sites in Africa where elephants are living full lives and dying of old age.

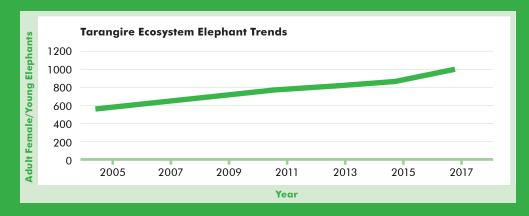
Cooperative relationships with local communities have been critical to WCS conservation success with savannah elephants. Maasai living adjacent to Tarangire, for example, receive payments from tourism companies to keep their land available for grazing by elephants during the wet season, when the elephants move out of their protected areas for food.

Forest elephants need large areas well protected by trained staff. Over its long presence in Central Africa, WCS has helped governments to establish, maintain, and safeguard fully functional protected areas,

including the Congo Republic's Nouabalé-Ndoki and Conkouati-Douli National Parks, that are surrounded by a matrix of other land uses, including logging and mining concessions and subsistence agriculture.

Through conservation informed by this knowledge, WCS—working with government and other partners has been able to protect forest elephants and reduce or reverse their decline. Conkouati and Nouabale-Ndoki are two of the only places across the entire forest elephant range where populations have stabilized and, in the former case, are increasing.





Conservation efforts in Tanzania's Tarangire National Park have contributed to the arowth of the savannah elephant population by an annual average of 4.8 percent between 2005 and 2017.



Savannah Elephants

The expanding elephant poaching crisis of the mid-2000s, combined with the loss of habitat, led to a dramatic decline in savannah elephant populations in most parts of Africa—Southern Africa being an exception. Through long-term conservation strategies, WCS has worked to stem this decline. At the field sites where WCS works, there have been several areas where savannah elephant populations are increasing, including in Tanzania's Tarangire National Park and Uganda's Murchison Falls and Queen Elizabeth National Parks.

Forest Elephants

Forest elephants once roamed throughout Central Africa's forests—but the population declined by a staggering 62 percent between 2002 and 2011 according to a groundbreaking study led by WCS's Fiona Maisels and Samantha Strindberg. Today, most remaining forest elephants are found in and around well-protected national parks and in some remote areas without roads. We know that anti-poaching efforts are critical to elephant safety; we also know that strong local governance and limited road access to elephant habitat are essential in stabilizing forest elephant populations and reversing losses.

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SPOTLIGHT SPECIES

Burmese Star Tortoise

Asian freshwater turtles and tortoises face major threats from the illegal wildlife trade and habitat loss, but recent WCS success stories offer hope for the future of these imperiled animals. Back from the brink of extinction is the Burmese star tortoise (*Geochelone platynota*), found only in Myanmar's central dry zone. Demand from the global pet market in the US, Europe, and Asia beginning in the mid-1990s virtually wiped out the species in a matter of years until it was considered ecologically extinct. In response, WCS began an active captive breeding program in conjunction with partners from the Turtle Survival Alliance and the Myanmar Forest Department.

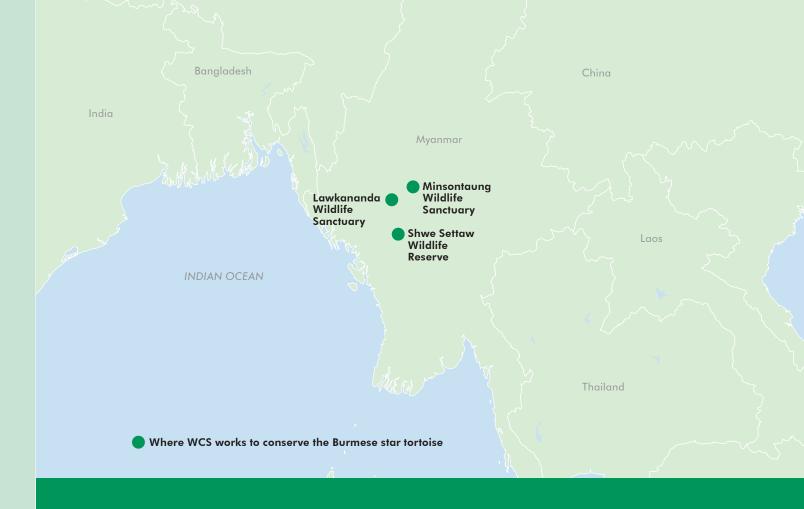
Beginning with approximately 175 individuals (most confiscated from the wildlife trade), WCS and its partners established three captive populations, or "assurance colonies," to hedge against species extinction. After the colonies were established, we had to determine the tortoises' dietary, reproductive, and hatchling needs.

With a team that included herpetologists and veterinarians from the Bronx Zoo, combined with field-based conservation staff in Myanmar, WCS had unique qualifications to recover this species—whether through design of breeding centers, provision of veterinary expertise, or community outreach to ensure the safety of tortoises released to protected areas. These efforts

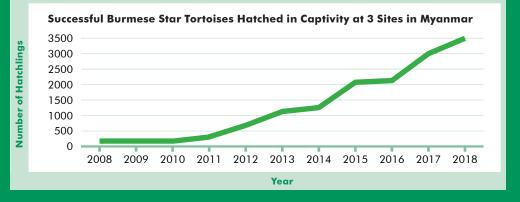
with our partners have helped the Burmese star tortoise to recover from fewer than 200 in 2004 to an astounding 17,000 wild and captive animals today.

Approximately 2,150 animals have now been released into the wild in two wildlife sanctuaries. Through our work with local communities to significantly reduce poaching pressure, released tortoises are not only surviving but now successfully reproducing in the wild. More than a century after saving the American bison from extinction, WCS continues to combine the power of its zoo and field knowledge to save species around the world.





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Driving Policy

EARLY DAYS

WCS has a long history of shaping conservation policy in the United States and around the world. In our early decades, we helped secure passage of such groundbreaking international legislation as the 1911 Fur Seal Treaty and the 1918 Migratory Bird Treaty Act. Throughout our history, fieldwork sponsored by WCS has led to the creation of protected areas around the world.

UNITED STATES POLICY

After opening an office in Washington, D.C. in 2003, WCS solidified its role driving U.S.-based conservation policy, beginning with support for the 2004 Marine Turtle Conservation Act, and continuing straight through to enactment of the 2019 WILD Act and beyond.

WCS has helped lead the fight to end elephant poaching and the trafficking of—and demand for—elephant ivory. Through its 96 Elephants campaign, WCS led efforts to achieve strong U.S. federal and state ivory and wildlife trade bans and secured passage of the federal END Wildlife Trafficking Act.

Working in a broad coalition, WCS helmed an initiative to make the American bison—a species WCS helped save from extinction—the U.S. national mammal. And through its Give a Sip campaign, WCS is leading the way to reduce single-use plastics in New York.

WCS successfully spearheaded work to protect and grow U.S. federal funding for global conservation to more than \$500 million annually—doubling USAID's Biodiversity program between 2004 and 2019 and establishing and doubling the Combatting Wildlife Trafficking program in just a few short years.

INTERNATIONAL POLICY

WCS leverages its scientific and field expertise through policy interventions with intergovernmental organizations, treaties, and other fora—focusing on partnerships, delivering conservation outcomes, networking with governments, and opening doors to funding. Our policy engagement promotes our field-based wildlife and wild-places priorities.

We work with governments in the nearly 60 countries where we maintain field offices and through our Europe offices with the European Union. We likewise engage with the International Union for Conservation of Nature (IUCN), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Biological Diversity (CBD), Convention on Migratory Species of Wild Animals (CMS), UNESCO-World Heritage Convention, and the UN General Assembly.

WCS endeavors to bring a focus on ecosystem intactness to the CBD. We have also significantly scaled up our wildlife trafficking work in collaboration with governments across the globe. The transnational nature of this trade means that field-level actions can only be effective if complemented along the trade chain and at multiple policy levels.

In 2015, the U.N. General Assembly adopted a set of 17 Sustainable Development Goals (SDGs) in an effort to integrate biodiversity conservation with sustainable development. As we lose biodiversity to human encroachment, habitat loss, infrastructure development, overfishing, and other threats, the SDGs have focused WCS and its partners on these challenges.



ABOVE: WCS played a leading role in protecting the American bison from extinction in the early 1900s. A century later, WCS led a successful campaign to designate the bison as the US national mammal.

RIGHT: Ivory awaiting destruction in 2017 at a WCS-organized crush in New York City's Central Park.

BELOW: The Save Vanishing Species stamp has helped raise millions of dollars in conservation support for global charismatic species like tigers, rhinos, and elephants.





WCS Conservation Timeline

1890s

1894 Theodore Roosevelt, as Boone and Crockett Club president appoints a committee asking New York State to establish a zoological society in New York City.

1895 The New York Zoological Society (NYZS) is founded.

1896 The New York Aquarium established at Manhattan's Castle Clinton, in present-day Battery Park.

1897 A.I. Stone travels across the Arctic for two years on behalf of NYZS and the American Museum of Natural History (AMNH), studying the geographic distribution of animals and investigating native people there.

1899 The Bronx Zoo (formally, the New York Zoological Park) officially opens under the leadership of founding Director William Hornaday, IMAGE BELOW



1900s



1900 With the backing of NYZS leadership, the Lacey Act passes, prohibiting trade in wildlife, fish, and plants that have been illegally taken, possessed, transported, or sold.

1901 The Bronx Zoo establishes first veterinary department at a J.S. zoological park.

1902 NYZS takes over management of the New York Aquarium under the direction of Charles Haskins Townsend, IMAGE ABOVE

907 The American Bison Society ns the transfer of Bronx o bison to protected lands the American West to restore cimated populations of this species. IMAGE RIGHT



1910s

1911 The Fur Seal Treaty of 1911—signed by the U.S., Great Britain, Japan, and Russia, and promoted by William Hornaday's campaigns to protect the northern fur seal—becomes the first international treaty to address wildlife conservation.



William Hornaday helps write language in the 1913 Tariff Act prohibiting importation of bird plumage for use in hats

1916 Bronx Zoo Curator of Birds William Beebe opens a tropical research station in British Guiana (now Guyana) and soon begins NYZS's Department of Tropical Research.

A fully-equipped animal hospital takes the place of the Bronx Zoo's previous makeshift clinic; Dr. Reid Blair serves as the Bronx Zoo's first veterinarian. IMAGE BELOW



1920s



1922 Helen Keller visits the Bronx Zoo. IMAGE ABOVE

1924 Congress passes a new code of game laws for Alaska as a result of NYZS advocacy.

1928 In an effort to save the Galápagos tortoise from extinction, Charles Townsend collects different species from Ecuador and transports them to zoos in the U.S., Australia, Bermuda, and Panama. First-generation offspring of those tortoises survive today at the Bronx Zoo's World of Reptiles. IMAGE RIGHT



1929 NYZS passes a resolution to oppose the introduction of nonnative animals in U.S. national parks and urges the National Park Service to prohibit all such introductions.

After more than 10 years of campaigning by William Hornaday and other NYZS officers, the Migratory Bird Conservation Act passes.

The Bronx Zoo opens its first education department, teaching zoology, conservation, and natural history to visitors and students.



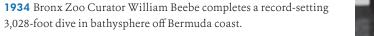
1930 NYZS officers head a campaign against misguided slaughte of thousands of hoofed mammals in Zululand. South Africa

The NYZS Department of Tropical Research distinguishes itself through the inclusion of several women scientists-including newly hired zoologist Jocelyn Crane—and artists in a field dominated by men. IMAGE ABOVE

1931 NYZS analysis of whaling logs illustrates the range and seasonal migrations of whales and becomes the foundation of later cetacean conservation work. IMAGE RIGHT

to eradicate the tsetse fly.

1930s



1940s



The Bronx Zoo Children's Zoo opens. IMAGE BELOW

1946 NYZS establishes the Jackson Hole Wildlife Park to conserve Rocky Mountain fauna. It becomes part of Grand Teton National

1948 The Conservation Foundation is founded to handle NYZS's ever-expanding conservation program. The foundation later fledges as a free-standing entity.

NYZS president Fairfield Osborn writes Our Plundered Planet, calling attention to environmental destruction by humankind.

> The Conservation Foundation and NYZS initiate studies on the effects of pesticides on animals five years before publication of Rachel Carson's Silent Spring.

1950s



1952 NYZS supports research by A. Starker Leopold and Frank Fraser Darling on wildlife conditions in Alaska, focusing on forest NYZS wildlife biologist Thomas Struhsaker begins a destruction, overgrazing, and protection of wolves.

1956 NYZS supports an expedition to the southern slope of Alaska's Brooks Range by Olaus and Margaret Murie, joined by a young researcher named George Schaller. They later successfully urge Congress to create the Arctic National Wildlife Refuge.

1957 The New York Aquarium opens in Coney Island, moving from its original Manhattan location after 16-year hiatus. IMAGE ABOVE

1959 Through efforts of NYZS's Carleton Ray, the world's first land and sea park is established at Exuma Cays in the Bahamas

Accompanied by his wife Kay (pictured) and supported by NYZS, George Schaller conducts the first ecological study of mountain gorillas. IMAGE RIGHT



1960s

60 NYZS surveys and conservation proposals for James's ningos lead to the establishment of the Laguna Colorada Reserve in Bolivia. IMAGE BELOW

1966 NYZS's George Schaller conducts the first ecological and behavioral study of Serengeti lions.

NYZS establishes the Institute of Research in Animal Behavior at Rockefeller University that professionalizes conservation work and gives a home to leading scientists in the field.

groundbreaking study of the primate community within Uganda's Kibale Forest, beginning an association with wildlife conservation and scholarship in Uganda that continues today.

1967 NYZS supports Iain Douglas-Hamilton's ecological survey of the elephant population in Tanzania's Manyara National Park.

Dian Fossey continues George Schaller's work on mountain gorillas with NYZS support.

> **1969** Conservation work in Argentina between 1960-1969 helps create six coastal reserves, including Punta Tombo and Península Valdés.

The Bronx Zoo opens World of Darkness, the first zoo exhibit to feature nocturnal animals on a reverse light cycle.



1970s

1970 A recording of humpback whale communications

by NYZS wildlife biologist Roger Payne generates a wave

1979 NYZS-supported Amy Vedder and Bill Weber establish

of public interest in these mammals and contributes

to the movement to ban commercial whaling.

1972 The Bronx Zoo World of

Birds opens; revolutionizes how

New York City's first native-born

gorilla, Pattycake, is delivered

at what will become NYZS's Central Park Zoo. IMAGE RIGHT

Volcanoes National Park.

the Bronx Zoo.

bird species are housed and

exhibited. IMAGE ABOVE



1984 NYZS helps create the world's first jaguar reserve, in Belize's Cockscomb Basin.

1980 NYZS wildlife biologist George Schaller begins

1985 NYZS establishes the Wildlife Health Center, one of the first modern zoo hospitals, at Bronx Zoo.

JungleWorld opens at the Bronx Zoo.

1980s



1987 NYZS design and animal departments work on a master plan for the Kenya Wildlife Service's Nairobi Safari Walk, IMAGE LEFT

1988 Under contract to the NYC Department of Parks and Recreation, NYZS assumes management of (and redesigns) New York City zoos. Central Park Zoo becomes one of NYZS's wildlife parks in 1988, followed by Queens Zoo

In the heart of Brazil's flooded forest, NYZS launches the Mamiraua Lake Ecological Station, which becomes Brazil's

the world's first wild gorilla tourism program in Rwanda's

in 1992 and Prospect Park Zoo in 1993. IMAGE RIGHT

1973 NYZS studies of field ecology and animal behavior 1989 NYZS elephant research and advocacy contributes help guide management of Kenya's Amboseli protected area. to an international ban on ivory trade.

1977 The 43-acre Wild Asia and Monorail exhibit opens at first Sustainable Development Reserve.

> NYZS initiates the first ever zoo-based field veterinary program.

WCS Conservation Timeline

1990s



1992 Work by NYZS staff helps establish the 5.300-squaremile Okapi Wildlife Reserve in present-day Democratic Republic of Congo. The okapis at WCS's Bronx Zoo today help to raise awareness of this unique and endangered species. IMAGE BELOW RIGHT

1993 Under the leadership of President and General Director William Conway, the New York Zoological Society changes its name to the Wildlife Conservation Society (WCS).

1995 WCS leads the effort to establish Madidi National Park and Kaa-lya del Gran Chaco National Park in Bolivia The latter is the first such area in the Americas initiated by an indigenous group

1998 WCS becomes one of the first conservation groups to work in Cambodia after the fall of the Khmer Rouge.

1999 WCS wildlife biologist Mike Fay begins his 1,200-mile megatransect walk across Congo Basin.

The Bronx Zoo's Congo Gorilla Forest exhibit opens, raising an average of more than \$750,000 in each successive year for Central African conservation.

WCS plays a pivotal role in documenting that West Nile Virus has spread to the Western Hemisphere for the



2000s

2002 The Gabon government establishes 13 national parks in the wake of Mike Fay's 1999 megatransect.

2003 The Bronx Zoo opens Tiger Mountain, the 7th Bronx Zoo exhibit to receive the AZA's award for exhibit excellence—more than any other AZA member zoo. IMAGE BELOW



2004 WCS establishes One World-One Health to prevent disease transmission at the interface of wildlife, livestock,

and human communities.

With land donated by Goldman, Sachs & Co., WCS shepherds creation of the 1,160-square-mile Karukinka Reserve in Chile.

2007 WCS-led conservation science helps define a 6-fold expansion of Canada's Nahanni National Park, protecting a wilderness 3.5 times the size of Yellowstone.

Seima forests are declared a protected area, bringing the number of new PAs created as a result of WCS's Cambodia work to four IMAGE RIGHT



WCS surveys reveal that the world's 2nd largest annual land migration of wildlife survived decades of war in southern Sudan.

2008 WCS efforts lead to creation of the first federally-designated U.S. wildlife migration corridor, the Path of the Pronghorn, to protect the longest land migration in the lower 48.

WCS identifies 125,000 western lowland gorillas, more than half of the world's population, in the Republic of Congo.

Madagascar! exhibit opens in Bronx Zoo's former Lion House.

WCS work in Patagonia leads to the creation of the Golfo San Jorge marine protected area, a key habitat for Magellanic penguins.

WCS launches a partnership with the Tanzania Wildlife Research Institute to conduct a national survey of elephants and frame a national strategy for their conservation.

WCS conservationists Brian D. Smith, Rubaiyat Mansur Mowgli, Samantha Strindberg, and others identify nearly 6,000 Irrawaddy river dolphins, among world's rarest species of marine mammal, in the freshwater mangrove system of Bangladesh.

2009 WCS helps establish Band-e-Amir, Afghanistan's first

WCS's Center for Global Conservation, HQ for its field programs, opens at the Bronx Zoo.

2010s

2010 WCS efforts help protect 170,000 acres vital for caribou and migratory birds in Alaska's National Petroleum Reserve.

A twenty-year conservation effort by WCS-India and local partners in the Malenad landscape secures the world's largest

A decade's work results in a U.S. Postal Service stamp benefiting the U.S. Fish & Wildlife Service's Multinational Species Conservation Funds.

2012 WCS begins an effort to protect the 25 most endangered turtle and tortoise species through propagation efforts at Bronx Zoo.

2,000 Kihansi spray toads bred at the Bronx & Toledo Zoos are released into their former Tanzania habitat after going extinct in wild. IMAGE BELOW



2013 With the slaughter of African elephants reaching 35,000 a year (96 a day), WCS establishes the 96 Elephants campaign to stop the killing, trafficking, and demand for elephant ivory.

With the help of WCS, the Isla Pingüino Coastal Marine Park and Makenke Coastal Marine Park are established in Argentina.

2014 The Komodo Dragon and Aldabra Tortoise exhibits open at the

WCS's 96 Elephants campaign succeeds in its efforts to pass state ivory ban laws in New York and New Jersey.

2015 WCS's New York Aquarium staff discover a nursery for sand tiger sharks in the waters of Long Island's Great South Bay.

Amur tigers are confirmed by WCS to be breeding in Russia's Primorskii Krai, one of the last strongholds for this species.

2016 WCS advocacy is critical to the designation of the American bison as the national mammal of the United States.

WCS partners with The Nature Conservancy (TNC) and the National Center for Ecological Analysis and Synthesis (NCEAS) to create the Science for Nature and People Partnership (SNAPP).

2017 Animal Planet's television docu-series THE ZOO premieres, taking visitors behind the scenes at the Bronx Zoo.

Six purebred bison calves that came to the Bronx Zoo as a historic giff from the Assiniboine and Sioux tribes are born into an eight-animal

2018 WCS Bolivia concludes its Identidad Madidi expedition, with 1,382 plants and animals added to Madidi National Park's species lists nd 124 candidate new species for science.

WCS's New York Aquarium opens Donald Zucker and Barbara Hrbek Zucker Ocean Wonders: Sharks! exhibit, featuring 18 species of sharks and rays and more than 115 other species of marine life.

WCS by the Numbers

WCS works in landscapes & seascapes that contain:

55% 70% The state of all forest elephants 100%

44% 90% 50%

WCS is the only conservation organization

with an international team dedicated to

veterinary science, disease surveillance,

and wildlife health research.

of all coral species of all sharks

WCS works to conserve the entire known range of

protected areas and national parks around the world have been established with WCS assistance: 189 terrestrial: 85 marine/coastal. 79 marine/coastal

world that WCS helps to

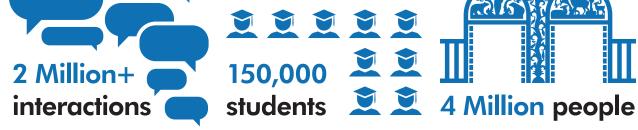
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are facilitated each year by our tours, and outreach programs



participate in education classes, each vear at our four zoos



programs 🚜

for children and families a conducted each year by WCS Education staff.

are under the care of WCS's zoos and aquarium. These represent more than

species,

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Contact

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FRONT COVER: A twenty-year conservation effort by WCS-India and local partners in the Malenad landscape has secured the world's largest tiger population.

BACK COVER: Gentoo penguins on Steeple Jason Island, one of two islands owned and conserved by WCS in the Falklands (Malvinas).

LEFT [CLOCKWISE FROM UPPER LEFT]:
Porcupine at WCS's Queens Zoo; Ocean
Wonders: Sharks! at WCS's New York Aquarium;
WCS education programs serve some 150,000
students every year; a Malayan tiger, Azul, swims
in a pool at the Bronx Zoo's Tiger Mountain.

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