

Panthera

2018 Annual Report



THE HUNTRESS

“On my first visit to Brazil’s Pantanal in 2011, I was lucky to encounter this female jaguar for the first time. A few years later, I travelled there again and found that she had become a powerful, dominant huntress in her territory near Porto Jofre, along the banks of the Cuiabá River.

One evening, my guide, Octavio Campos Salles, and I were heading back towards the lodge much later than usual. From within the dark vegetation along a lagoon, the magnificent cat appeared right in front of us and stood still for a few seconds. It was a truly magical moment, lasting just long enough for me to take this photograph.”

- Patrick Meier, Panthera Partner Photographer



Panthera

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Panthera's mission is to ensure a future for wild cats and the vast landscapes on which they depend.

Our vision is a world where wild cats thrive in healthy, natural and developed landscapes that sustain people and biodiversity.

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Asix-month-oldpumakitteninTorresdel
Paine National Park, Chile

Fierce and Fragile

Dr. Alan Rabinowitz was, in the truest definition of the term, a magnificent man. He was at once striking and charismatic in his physical presence, inspiring in his affect and intellect, and transcendent in his unique influence across generations of conservationists. Embodying the theme of Panthera's partnership with the fashion house Hermès, Alan was genuinely "fierce and fragile." Far more than anyone else of his era, he came to represent both the indomitable spirit and the scarred majesty of the big cats she so loved.

Just as the adjectives "beautiful" or "breathtaking" appear light-years away from adequately capturing the spectacular effect of a jaguar sighting in the wild, the complimentary appellation "legend" inevitably falls short for someone of Dr. Alan Rabinowitz's stature. Similarly, the words "kinship" or "friendship" do not remotely begin to convey what existed between Alan and me. The two of us were like long-lost twins who, from the time we met in the flesh, realized that we were meant to come together to complete one another. In time, we fulfilled for the other what each was missing individually in order to lift and execute in concert what we considered a most sacred mission. When Alan passed away on August 5, 2018, after his long contest with cancer, I felt that rending of twin spirits to the core. In the days that followed, I reflected, "It is beyond mourning. It is a loneliness framed only by the gratitude that our souls were granted an opportunity to meet and share a very special kind of joy—whether we were together or apart."

Alan and I not only felt a joy in common. Together, we experienced a rare kind of passion in the pursuit of our shared dreams and values. While we were awed, like most humans, by the iconic creatures we committed to protect, in retrospect, the power of our evangelism was clearly palpable to others too. After a joint interview for a "60 Minutes" segment on Panthera's work with jaguars in the Brazilian Pantanal, the late correspondent Bob Simon took us aside to confess that in his entire career, he had never seen greater chemistry in promoting a cause than he had witnessed between the two of us. Thanks to that chemistry, cats perhaps caught a break. But so did we, on the many occasions we met to discuss our calling. Whenever Alan and I found our engagement with "bipeds" to be enervating, we would convene for what we called our "cat crack" sessions. Poring over maps of wildlife corridors, or vetting applications for postgraduate scholarships, or merely talking about our aspirations for partnerships that would advance cat conservation, gave us a kick that no champagne could match. My family's endowment of the Wildlife Conservation Research Unit at the University of Oxford (the WildCRU) represents one of several consequential initiatives that originated from such enclaves. The Global Alliance for Wild Cats was another. There were many others, too, as we reached across the

divide and worked hard, where we could, to unite the often fractious voices of the cat world. We adopted Edward R. Murrow's adage that "difficulty is the excuse history never accepts" and vowed to push the envelope regardless of the risks. We would break the mold. We would dare to fail. But we would never fail to dare.

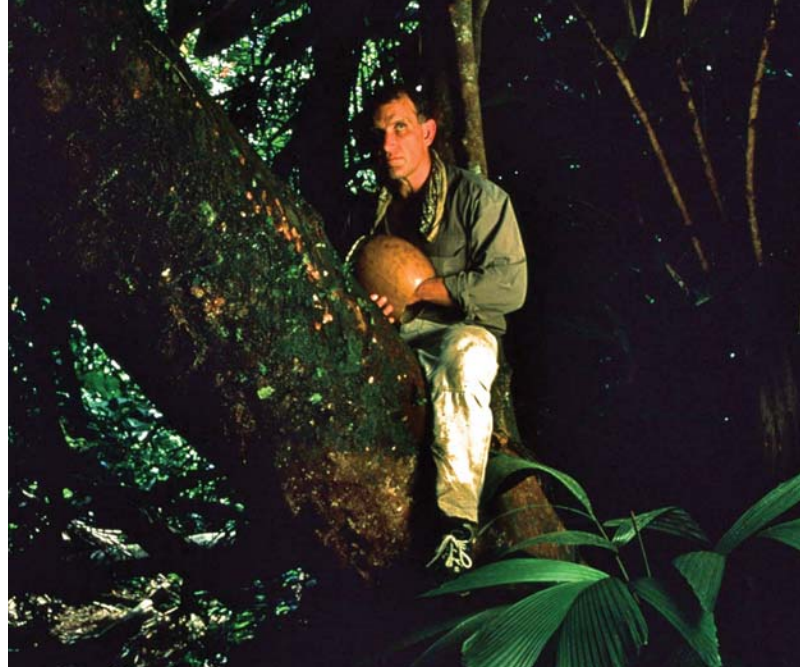
Long before we met in 2005, Alan had proven that he certainly walked the walk. Named by Time Magazine "the Indiana Jones of Wildlife Protection," he was well known for risking life and limb to study big cats and doing "whatever it takes" to save them—including surviving crashes, dodging booby traps, and, indeed, managing with cancer during long stretches in the field. His strength of will and character was not a pose. Undaunted by his human critics, he set aside political considerations to negotiate with—and, if necessary, face down—despots and warlords in order to protect wild habitats. His achievements are monumental; his impact, unparalleled.

And herein lies the good news for the future of cat conservation. For Alan knew well that his most prolific monuments would derive from, as Thucydides calls it, the "unwritten record of the mind" of each scientist and conservationist that he mentored or inspired. Imbued with Alan's genetic code, his colleagues and protégés have taken up the mantle as new champions of Panthera, ensuring our research and strategy remain as bold and exacting as Alan's own work. These talented professionals are leading the "Next Generation of Alans"—a veritable army for the wild, who proudly wear our organization's logo as they hack through unforgiving jungle to place remote cameras, build electric fences to protect cattle from jaguars, or train rangers to track and capture tiger poachers in the deep forest. Through these women and men—standing upon Alan's broad shoulders and implementing his vision—the trajectory of cat conservation that Panthera has succeeded in changing for the good not only endures, but is in fact thriving.

Despite this promise of a better future for wild cats, for his legion of admirers around the world—and for my wife, Daphne, and me—Alan's passing will always leave an enormous void. A day doesn't pass when we don't remember him. Sharing in the victories and sacrifices inherent to the noble mission of cat conservation with Alan and his wife, Tae, as well as his children, Alana and Alex, has been a constant in our family's daily existence for as long as we can remember. Energized by our engagement with Alan—whose partnership and camaraderie have changed all of us—we know that we are speaking for multitudes when we say that we simply live and breathe the cause.

While I hope that I never took Alan's presence for granted during his lifetime, in the months since his passing, my gratitude has

Top to bottom: A young Dr. Alan Rabinowitz calling jaguars in Cockscomb Basin, Belize; Dr. Thomas Kaplan and Dr. Alan Rabinowitz in the Pantanal; Dr. Alan Rabinowitz and Dr. Franklin Castañeda setting a camera trap



only grown for the ineffable impact he had on my life and for the populations of wild cats, especially jaguars and tigers, that are recovering today due to the meticulous groundwork he laid for global wild cat conservation. I am inspired to be better when I hear from such disparate voices the truly extraordinary repetition that Alan's was "a life well-lived"—a life that really made a difference. As Glenn Close, co-Chair of Panthera's Conservation Council, so poignantly noted upon Alan's passing, "We have lost one of the great pioneers in conservation who knew instinctively how much the collective soul of humankind needs wild places and the magnificent animals who dwell there."

Alan knew that the human connection to the wild could never be excised. One of the many great lessons that I learned from him is that while our ingenuity and curiosity can constitute humanity's downfall, they can also be channeled to save our most threatened species and habitats. It was Alan's unique brand of faith that allowed him to stare into landscapes ravaged by human greed and see that potential. In his own beautiful words, we too experience the strength, the drive and the hope that possessed him to the end:

"Our world remains a wondrous place. You can still find your way to the end of the last dirt roads, where maps show nothing but river blue and forest green. You can still go where no television antennas are perched upon the thatched roofing of village huts, and where the animals and plants have not all found their way into museum collections. There are still worlds to be explored where few have come before you and where mystery is waiting to be turned into knowledge."

May we all prove to be worthy custodians of Alan Rabinowitz's immense legacy.



DR. THOMAS S. KAPLAN
Founder, Chairman of the Board



Organizing for Impact

My predecessor, the late Dr. Alan Rabinowitz, was often called “the Indiana Jones of Wildlife Protection,” an appropriate label given his propensity for derring-do in the most remote regions of jaguar and tiger territory. Even towards the end of his incredible life, Alan was travelling across Latin America on the Journey of the Jaguar, making one last lunge to unite an entire hemisphere in prioritizing this threatened species. Suffice it to say, I am a different kind of CEO. While I have plenty of field experience (and still spend more time in the bush than my family would like), I get my thrills from riding a motorbike rather than “[challenging] myself against the environment,” as Alan put it.

Alan’s sense of adventure combined with his love of science to create a truly unique brand of conservation. It was with this viewpoint that Alan, with Dr. John Goodrich, created the Tigers Forever program, bringing together, for the first time, law enforcement and military expertise with cutting-edge biological science. But I noticed, first as a Panthera Board Member and now as President and CEO, that a program that is too action-oriented can be focused only on solving the problems of the here and now. I knew that in order to achieve our mission, we would also need to think about the future and develop long-term strategies with a renewed focus on our core strength: science.

Panthera’s scientific excellence is what allows us to maximize

conservation impact with limited resources, what delivers the conservation tools of tomorrow, and what brings us closer to the magnificent creatures we are preserving. The naturalist Dr. Robin Wall Kimmerer wrote, “The names we give ourselves are a powerful form of self-determination, of declaring ourselves sovereign territory.” With this in mind, Panthera’s restructuring finally gave a name to the strategy and innovation that propel our direct conservation programs by creating Conservation Science as an equal pillar to Conservation Action.

The Conservation Science pillar drives Panthera’s thought leadership, conducts the necessary biological research for impactful planning and policymaking, creates new conservation and research technology, evaluates Panthera’s worldwide impact, and mentors the next generation of conservation leaders. I have also tasked Conservation Science with building a fully realized strategy and program for studying, monitoring and, where necessary, protecting the oft-overlooked 33 species of small cats. To lead this pillar, we have passed Alan’s torch to two of his closest colleagues: Dr. John Goodrich steps into Alan’s former role as Chief Scientist, and Dr. Howard Quigley, whose friendship with Alan dates back to their graduate school days at the University of Tennessee, is the new Executive Director of Conservation Science.

Conservation Action, which implements the direct conservation programs propelled by Conservation Science, is under the leadership



A jaguar charging towards prey in the Brazilian Pantanal

of Dr. Joe Smith, Alan's former protégé in the Tigers Forever Program. To re-center our implementation strategies on the landscapes where multiple wild cat species often cohabitate, we tore down the walls between species programs and founded regional hubs out of which we will operate our locally based programs. These hubs will provide Panthera greater operating efficiency, give us stronger roots in the regions and communities in which we work, and increase collaboration between Panthera's conservation experts. We have created hubs covering North and Central America, South America, West and Central Africa, Southern Africa, Central and South Asia, and East and Southeast Asia.

With this reorganization, we have also broadened our planning horizon, creating five-year plans that better reflect the planning and investment required for true conservation impact for large carnivores. These plans will give us the freedom to adapt to ever-changing conditions while still following an overarching strategy. I am very eager to share with you our five-year plans for each pillar and regional hub in 2019.

The sheer talent and drive of Panthera's staff and leaders have changed the conversation about what is possible in cat conservation. Panthera has brought hope to what were thought to be hopeless species like tigers and snow leopards and shined a much-needed light on the plights of cheetahs, jaguars, leopards, lions and pumas

(and will soon do the same for small cat species). These developments are not a surprise for an organization led so long by Alan Rabinowitz. But while talent and drive can change the conversation, only strategy and organization can turn that conversation into a movement. With Alan's legacy pushing us, our supporters buoying us, and our new structure and planning guiding us, Panthera is creating a world where people and wild cats thrive together.



A stylized, handwritten signature in black ink that reads "Fred Launay".

DR. FRED LAUNAY
President and CEO



Saving Jaguars, Saving Landscapes

**A Q&A WITH ROSS J. BEATY
DIRECTOR AND CHAIRMAN, PAN AMERICAN SILVER
PANTHERA BOARD DIRECTOR**

Panthera Board Director Ross Beaty and his wife Trisha changed the conservation trajectory of the jaguar and all of the biodiversity its habitat supports when they made an extraordinary commitment of CAD \$5 million over ten years to Panthera's Jaguar Corridor Initiative. Through their Sitka Foundation, Ross and Trisha underwrite programs to study and protect jaguars and their landscapes in eight countries: Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, Panama and Colombia. Their commitment, the largest ever made to the Jaguar Corridor Initiative, directly funds Panthera's field staff in Central and South America, building our long-term scientific and law enforcement capacity with local talent.

When innovative philanthropists like Ross and Trisha set their sights on realizing one of the most ambitious carnivore conservation visions ever conceived, progress happens. Since Panthera's partnership with the Sitka Foundation began in 2017, we've introduced our groundbreaking law enforcement program into protected areas in Central America, established programs to reduce conflict between ranchers and jaguars in four new countries, and spearheaded the Jaguar 2030 Roadmap, a multinational collaboration to secure 30 priority jaguar conservation landscapes by the year 2030.

We recently sat down with Ross to find out what drives his giving, what attracted him to big cats and why he's optimistic about the future.

Above (left to right): Ross Beaty, Panthera Board Director; Ross Beaty on the Jotunheimen Traverse in Norway, 2015

“Panthera is focused. It has a global reach. It's extremely well run. I'm very impressed with the people, particularly the scientists and researchers in the field that I've met. With good focus, good people and good financial support, you can hit your mission and deliver results. That's what I see Panthera doing year after year. Trisha and I just couldn't be happier about our investment.”



ROSS BEATTY

WHY IS SPECIES CONSERVATION A GOOD INVESTMENT?

Conserving species and protecting the environment are investments in the future of our children, our economy and, quite frankly, human beings as a species. They're investments for the long term. And you have to think long-term because if we don't get our environment right, then we're not going to have a long term for humans. We must learn to live in sync with our fellow species on Earth, including big cats.

WHAT IS IT ABOUT BIG CATS, AND JAGUARS IN PARTICULAR, THAT ATTRACTED YOU?

Actually, it wasn't the jaguar per se that I was interested in as much as the notion of landscape conservation. I've spent most of my business career over the last 25 years in Latin America. I connect on a personal level with the geography and the history and the people. So, I bought into the fact, championed by Tom Kaplan and Alan Rabinowitz in our very first meeting, that if you have healthy cats, then you have healthy landscapes. Cats need broad areas and healthy biodiversity to thrive. So, if we can make the jaguar healthy throughout its range from the southern United States right down to the bottom of Patagonia in Argentina, we're going to improve the landscape for countless other species.

YOU'VE TRAVELED TO GROUND ZERO FOR JAGUAR TOURISM IN THE PANTANAL. WHAT IMPRESSION DID THAT MAKE ON YOU?

Well, it was fantastic. After 10 or 15 years of hard work by Panthera and its partners, including its wonderful Brazilian team, it is now a place where you can reliably see wild jaguars during the day, and observe them safely, the way you can see lions in many of the game reserves in Africa. It's absolutely thrilling—the experience of a lifetime. Panthera's efforts to secure the land, educate the local ranchers about how to reduce their livestock losses and prove that living jaguars are better for them than dead jaguars have resulted in huge economic benefits for the people of the region. Now we need to take that model and repeat it elsewhere in the Jaguar Corridor, and I think we're going to have exactly the same result.

AS A PASSIONATE ENVIRONMENTALIST, WHAT ARE YOUR GREATEST CONCERNS?

The two elephants in the room today in terms of stress on the environment are climate change and loss of biodiversity. These are both big-picture problems that have one thing in common: they're invisible. People don't see the loss of biodiversity because it takes place over many, many years. Most species disappear without people even knowing it. If we lose species, they're gone forever and our children will never enjoy them or the services they provide like clean air and clean water and clean soil that sustain human existence. Humans don't think that much about the long term. They're not built that way. They're focused on solving the problems they can see right in front of them when we should be looking 10 years, or even a century, ahead.

ARE YOU OPTIMISTIC ABOUT THE FUTURE OF OUR PLANET?

I see positive change happening in many parts of the world, and it's driven by two things: people in governments who understand the need to make rules and regulations that protect our air, land and oceans—that comes from the top down. It also is driven from the bottom up in the sense that more and more people are beginning to understand they actually need to change their way of life: how they eat, how they live, where their electricity comes from, the type of vehicles they drive, what and how much they consume and so on. I'm seeing more people who understand the damage we are doing to our planet. And they actually want to change and be part of the solution. I think the forces of conservation are actually winning in many places.

Knowing that, why not be optimistic and then try to do what you can to help make the world a better place? For me, it's all about protecting the environment, strengthening our natural spaces, protecting nature and trying to reduce the carbon pollution that's hurting our air and hurting our oceans. There are so many things humans can do on an individual level to fight this battle that ultimately I think it's going to be won. Panthera is part of this solution, and I'm very proud to be supporting it.

Program Highlights





Previous: Lionesses and cubs from the Jackalberry Pride in Namibia strolling in the twilight

Program Highlights

Africa

“Securing the huge landscapes big cats need to survive in one of the world’s most rapidly developing regions is a daunting challenge. Fortunately, at Panthera, thinking big is what we’re all about.”

—DR. KIM YOUNG-OVERTON
Director, KAZA Program

In this massive region, Panthera is securing Africa’s most vulnerable populations of lions, leopards and cheetahs, focusing on those with high potential for recovery as well as high ecological and economic dividends for local people.

In Southern Africa, Panthera’s long-standing leadership as a convening force among stakeholders in the vast Kavango-Zambezi Transfrontier Conservation Area (KAZA) entered a new phase with the launch of the KAZA Carnivore Conservation Strategy. Over the next five years, this visionary collaboration aims to secure wildlife corridors and increase connectivity across the five-nation region of Angola, Botswana, Namibia, Zambia and Zimbabwe.

Panthera’s activities in West Africa center on key landscapes in Gabon, Senegal and the WAP Complex, all of which are struggling to hold on to their last remaining populations of big cats, including the critically endangered West African lion. Panthera is working with local authorities to strengthen protection of the parks and disrupt poaching activity while continuing to break new ground in cat science.

BIG CATS



Lion
Panthera leo



Leopard
Panthera pardus



Cheetah
Acinonyx jubatus

SMALL CATS

African Golden Cat
Caracal aurata

Sand Cat
Felis margarita

Black-footed Cat
Felis nigripes

Serval
Leptailurus serval

Caracal
Caracal caracal

Wildcat
Felis silvestris

Jungle Cat
Felis chaus

MAP KEY



Featured Project Site



Lion Project Site



Leopard Project Site



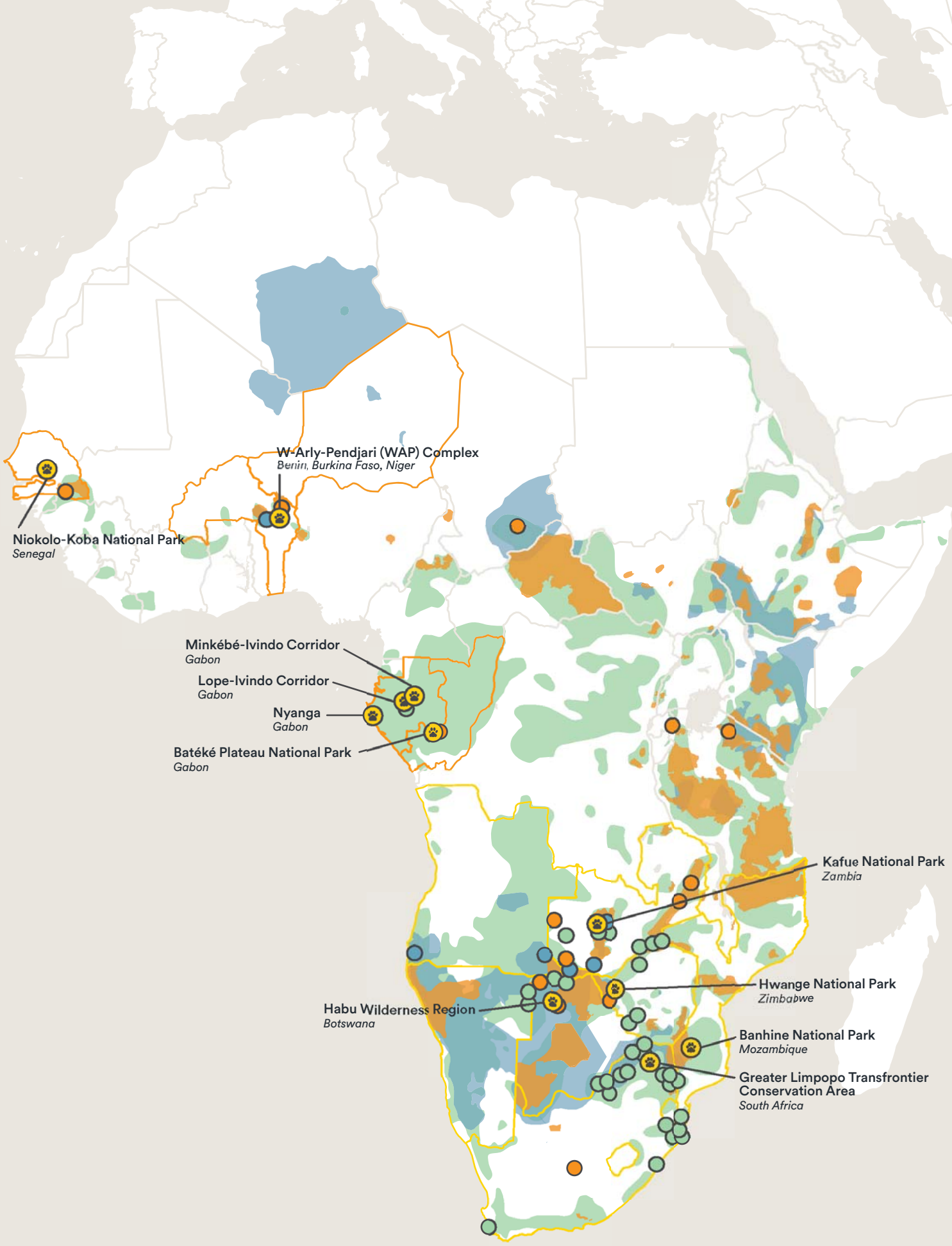
Cheetah Project Site



Southern Africa Region



West & Central Africa Region



Niokolo-Koba National Park
Senegal

W-Arly-Pendjari (WAP) Complex
Benin, Burkina Faso, Niger

Minkébé-Ivindo Corridor
Gabon

Lope-Ivindo Corridor
Gabon

Nyanga
Gabon

Batéké Plateau National Park
Gabon

Habu Wilderness Region
Botswana

Kafue National Park
Zambia

Hwange National Park
Zimbabwe

Banhine National Park
Mozambique

Greater Limpopo Transfrontier
Conservation Area
South Africa



Southern Africa

Above: Lion skin and snares confiscated by anti-poaching rangers, Kafue National Park, Zambia

Opposite: Habu Community Game Guards study tracks in Botswana

Opposite (circle): A Namibian leopard caught on camera trap

Three years after Panthera first convened key players from across KAZA to discuss a strategy for conserving the area's carnivores and their landscapes, the resulting action plan, known as the KAZA Carnivore Conservation Strategy, is off and running.

In 2018, Panthera focused on securing strongholds for lions, leopards and cheetahs in protected area networks within KAZA and the Great Limpopo Transfrontier Conservation Area.

Under a newly formalized MOU with the Zambian government, Panthera, with the Department of National Parks and Wildlife, launched the Kafue Law Enforcement and Wildlife Support (KLAWS) project. In 2018, KLAWS focused on setting up two of five intensive protection zones in central Kafue National Park. In the first eight months, the new 18-ranger anti-poaching unit, supported by a fully functioning law enforcement operations center and digital communications system, markedly reduced wildlife crime and carnivore losses in the area.

In the Habu Village Communal Area on the western edge of the Okavango in Botswana, a new team of 16 Community Game Guards began patrols. While their early reconnaissance missions turned up 48 elephant carcasses in the patrol area, by the end of the year, the team's efforts appeared to be reducing poaching pressure and



generating more tolerance for wildlife.

Efforts to protect Mozambique’s remaining wild lions got a boost in May with the expansion of the Limpopo Lion Protection Unit to five full-time rangers based in Limpopo National Park. Shortly after deploying, the rangers made their first arrests of bushmeat poachers, who received a combined sentence of 26 years in prison. While targeted poaching for their body parts continues to ravage the region’s lions, the increased law enforcement activities in Limpopo have begun to have an impact.

Meanwhile, our joint efforts with the Kwando Carnivore Project to reduce predation and increase tolerance for lions in farming communities within the Kwando Wildlife Dispersal Area continue to keep livestock losses to a minimum and have nearly eliminated retaliatory killing of lions.

KAFUE NATIONAL PARK, ZAMBIA

97

Bushmeat poachers arrested

107

Poacher camps destroyed

567

Snares removed

LIMPOPO NATIONAL PARK, MOZAMBIQUE

3

Bushmeat poachers arrested

34

Poacher camps destroyed

148

Snares removed



0

Detections of lions killed at both sites

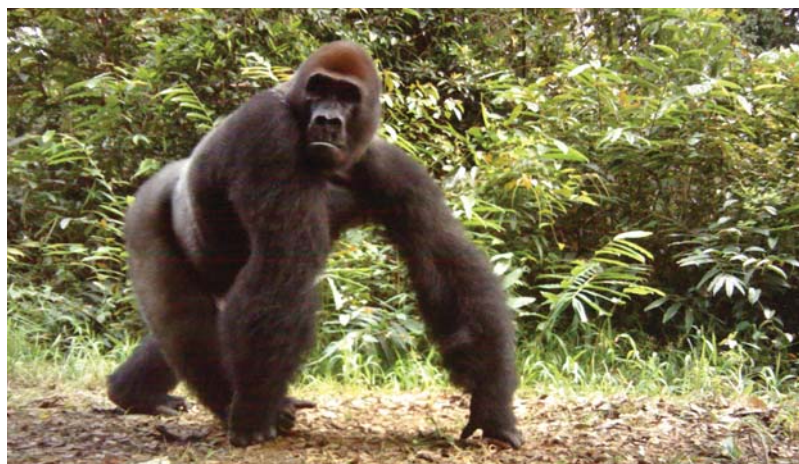
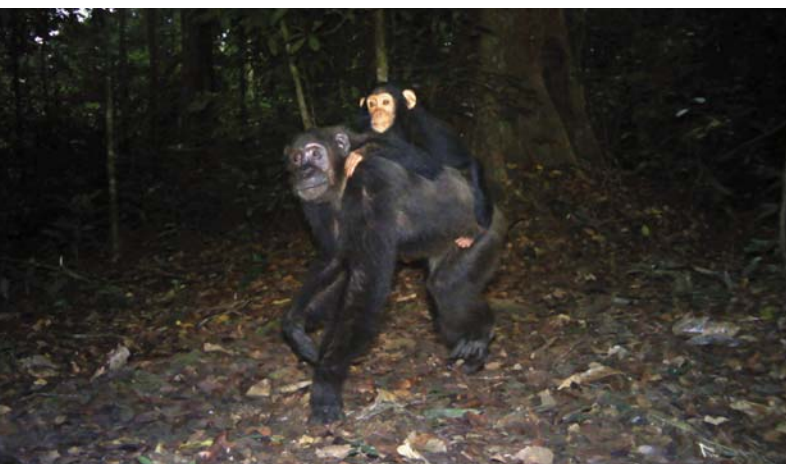
Results May - December 2018

LOOKING FOR LEOPARDS



Panthera created the KAZA Leopard Surveillance Network to provide the governments of Namibia, Zimbabwe and Zambia—where trophy hunting of leopards is legal—conclusive information to help them tailor science-based conservation policies. Results of camera trap surveys in all three countries were bleak: leopard population densities, particularly in Namibia, were some of the lowest ever recorded.

Policymakers are taking notice. At a joint CITES-CMS meeting in November, senior officials acknowledged the dire state of leopards in KAZA. Panthera’s Leopard Surveillance Network was adopted as the blueprint for monitoring and adaptively managing the species going forward.



West & Central Africa

Above (left to right): Animals photographed in the Gabon camera trap survey: chimpanzee and baby; leopard; elephant; African golden cat; gorilla; lone Gabon lion

Opposite (circle): Security team in Senegal collecting predator scat

In 2015, Gabon's Agence Nationale des Parcs Nationaux (ANPN) asked Panthera to assist on a massive project to delineate conservation corridors between 10 protected areas countrywide that were in danger of becoming isolated by development. Maintaining connectivity between core populations of wide-ranging species like the leopard is crucial to their long-term survival. So, Panthera and ANPN began a series of intensive camera trap surveys to estimate the presence and movement patterns of leopards and other priority species, including African golden cat, elephant, gorilla and chimpanzee, across the potential corridor regions.

In 2018, the project focused on surveys of two of the final four corridor areas: the Lope-Ivindo corridor in central Gabon and Ivindo-Minkébé to the north. These surveys are expected to be completed in 2019. Once analyzed, the data will help the team refine the boundaries of future corridors and establish critical management interventions that will ensure they function effectively.

While analyzing the data and thousands of camera trap images captured over the past three years, researchers made some startling discoveries. In 2018, Panthera cameras captured images of a spotted hyena, long considered extinct in Gabon, during surveys of the Mwagna-Ivindo corridor and Batéké Plateaux National Park. We have proposed adding the hyena as an extant species in Gabon, which would give it protected status in the new forest code.



Panthera cameras in the Nyanga area captured images of the southern reedbuck, an antelope that used to roam the savannas of southern Gabon. The pictures are the first evidence of living individual reedbucks since Gabon's independence. The surveys also confirmed the presence of waterbuck, serval and common duiker in the area, prompting the ANPN to create a new protected area, with boundaries defined by Panthera and a GIS specialist from ANPN.

During the year, Panthera also kicked off an ambitious project to genetically map all existing leopard populations regionwide, starting in Gabon. The effort is aimed at stemming the illegal trade in leopard skins by identifying the populations most targeted for trade and directing law enforcement to those areas.

A REMARKABLE RECOVERY

Wildlife has made a remarkable recovery on the Gabon side of Batéké Plateaux since it was designated as a national park. Between 2011 and 2018, photo captures of priority species have skyrocketed:

↑ **820%** Forest buffalo

↑ **750%** Forest elephant

↑ **73%** Leopard

↓ **99%** Photos of poachers

ONE TO WATCH



Panthera's first full year of operations in Senegal's Niokolo-Koba National Park was dedicated to laying foundations: working with the Department of National Parks, Panthera's team focused on building the crucial infrastructure needed to protect the southeastern boundary of the park, from roads to a new ranger outpost. Panthera staff also helped to train recruits for the park's Mobile Brigades.

With the massive demand for lion and leopard skins in Senegal, and known poachers operating in Niokolo-Koba, efforts in the coming year will include intensifying lion monitoring and researching the trade in cat parts to help develop counter-trafficking strategies and tactics.

Program Highlights

Asia

*“Give tigers space, prey and protection, and they will thrive.
It’s as simple as that.”*

–DR. JOHN GOODRICH
Chief Scientist and Director, Tiger Program

Across Asia, Panthera continues to forge strong partnerships with local governments, NGOs and others to better understand the conservation needs of tigers, leopards, snow leopards and dozens of small cat species while deploying our own people and resources strategically to address their most urgent threats.

Panthera’s efforts to protect the world’s last remaining wild tigers is laser focused on sites with the most potential for recovery. Successes in several of our Tigers Forever sites provide hope for sustained tiger rebounds where there is a shared commitment by government and conservationists to protect the animals and the rights and well-being of the people who live near them.

In the Himalayas, Panthera’s efforts are aimed at stabilizing and increasing snow leopard populations by reducing human-cat conflict. As in most places where cats and humans coexist, understanding the concerns of local people and fostering economic opportunity are the greatest drivers of change—principles at the heart of our work with our partners in Central Asia.

BIG CATS



Tiger
Panthera tigris



Snow Leopard
Panthera uncia



Leopard
Panthera pardus

SMALL CATS

Asian Golden Cat
Catopuma temminckii

Bornean Bay Cat
Pardofelis badia

Chinese Mountain Cat
Felis bieti

Clouded Leopard
Neofelis nebulosa

Fishing Cat
Prionailurus viverrinus

Flat-headed Cat
Prionailurus planiceps

Jungle Cat
Felis chaus

Fishing Cat
Prionailurus viverrinus

Leopard Cat
Prionailurus bengalensis

Pallas Cat
Otocolobus manul

Marbled Cat
Pardofelis marmorata







Rusty-spotted Cat
Prionailurus rubiginosus

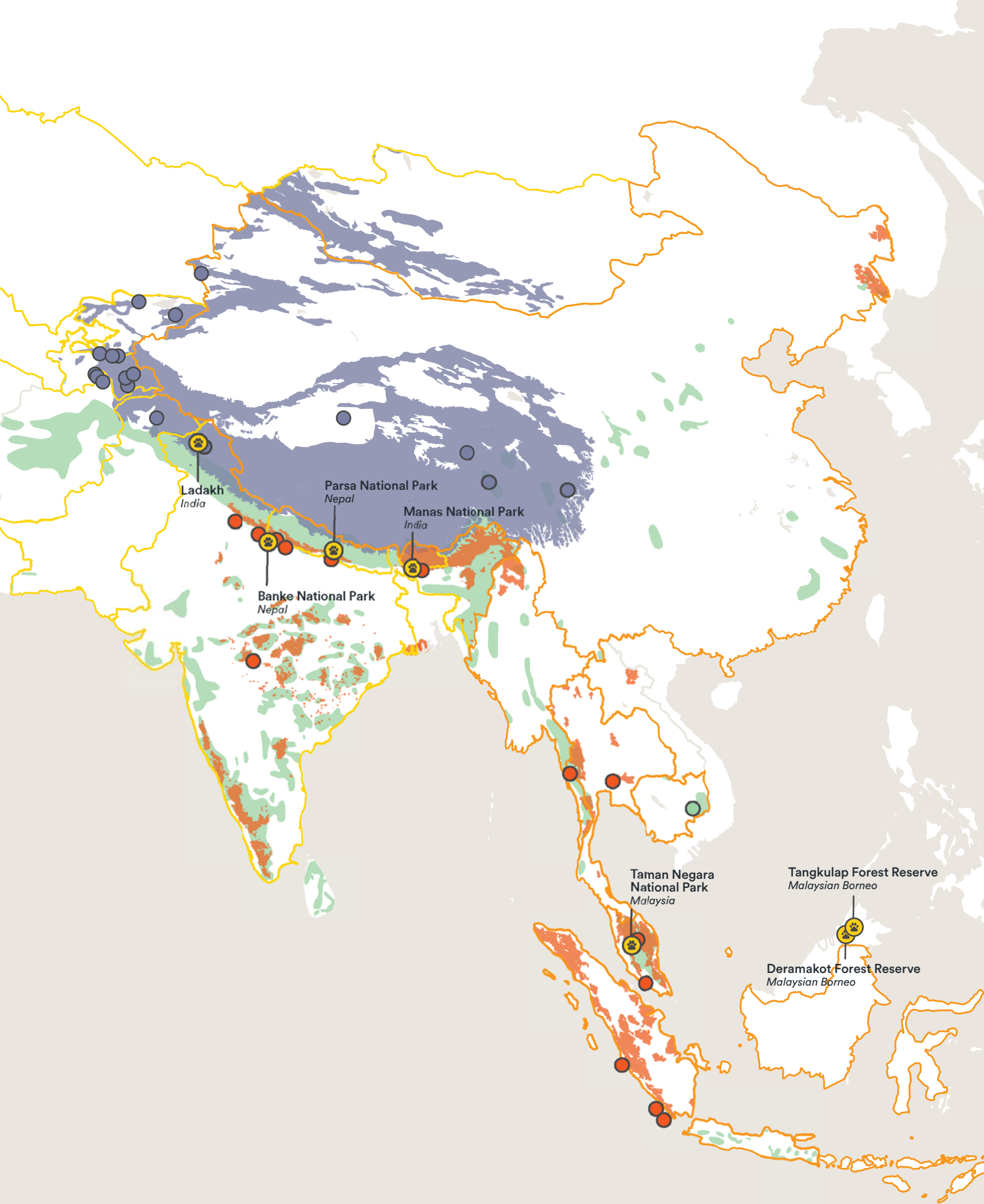
Sunda Clouded Leopard
Neofelis diardi

Sunda Leopard Cat
Prionailurus javanensis

Wildcat
Felis silvestris

MAP KEY

-  Featured Project Site
-  Tiger Project Site
-  Snow Leopard Project Site
-  Leopard Project Site
-  Central & South Asia Region
-  East & Southeast Asia Region





Central & South Asia

Above (left to right): Patrol Specialist Prosenjit Sheel leads Manas Panthers in practice formations; Sheel demonstrates the use of flares with assistance from Patrol Analyst Aditya Malgaonkar

Opposite: A tiger caught on camera trap in Nepal

Opposite (circle): A snow leopard displays its perfect camouflage

In India's Manas National Park, a World Heritage Site in the Himalayan foothills, tigers and other iconic wildlife had been nearly wiped out during a long period of civil unrest in the region. Now, thanks to an intensive effort by the Indian Forest Department, Aaranyak and Panthera to secure the park over the past seven years, Manas is experiencing a tiger recovery. Camera traps detected 39 tigers in the park in 2018, compared to just eight in 2011. Even more good news: of 33 individuals caught on camera through 2016-17, at least 10 are known to be straddling India and Bhutan—a sign that Manas' tigers could help fuel recoveries elsewhere.

A recovery like the one in Manas requires a sustained commitment from the government, local law enforcement, NGOs and members of the surrounding community. Today, two elite patrol teams, the Manas Tigers and Manas Panthers, protect the integrity of the park. A team of data analysts, staffed by Aaranyak and Panthera, supplies the protection teams with information gleaned from patrol data to help them assess threats, plan, and pinpoint management activities. An extensive network of Panthera Cam remote cameras provides additional “eyes on the wild,” allowing law enforcement to respond in real time to suspicious activity in the park. And Aaranyak's Manas Tiger Conservation Programme helps reduce pressure on the park



by providing local people better alternatives to using the forest for their basic need (see story on page 50).

In 2018, similarly hopeful results emerged out of Nepal, where the government announced a remarkable 19 percent increase in the country's tiger population estimate in just four years. A nationwide camera trap study released in September suggests that Nepal's tiger population grew to 235 individuals from 198 in 2013, when the last survey was conducted. Panthera, along with Nepal's Department of National Parks and Wildlife Conservation, the National Trust for Nature Conservation, Zoological Society of London and World Wildlife Fund, conducted two extensive tiger population surveys from 2013-14 and 2017-18 in five national parks across the lowlands of Nepal to acquire the estimates.

Like Manas, Nepal's tiger resurgence has resulted from the government's commitment to rigorous policing of its protected areas and strong deterrents for poaching, along with the support of local communities and consistent scientific population monitoring.

TIGERS ON THE REBOUND

Thanks to intensive protection and innovative community programs at Panthera's Tigers Forever sites in India and Nepal, survey results released in 2018 show tigers are bouncing back and providing hope for recoveries nearby. Our camera traps recorded:

MANAS NATIONAL PARK, INDIA

39 Tigers in 2018 vs. 8 in 2011

PARSA NATIONAL PARK, NEPAL

18 Tigers in 2018 vs. 7 in 2013

BANKE NATIONAL PARK, NEPAL

21 Tigers in 2018 vs. 4 in 2013

TOURISM AND TOLERANCE



In the past, Tsering, a sheep herder in Tukla in Ladakh, India, would have killed a snow leopard for preying on his flock. But recently, he called the authorities instead and spared the offending cat.

Tsering's restraint is indicative of changing attitudes in the Rong Valley where Panthera and the Snow Leopard Conservancy-India Trust conduct joint programs to train villagers in tourism services for travelers hoping to spot the elusive cats. SLC-IT hopes to grow its homestay and handicrafts programs and the vital income they provide, at once improving livelihoods and increasing tolerance for snow leopards.



East & Southeast Asia

Above: Panthera and Rimba celebrate the completion of Deep Forest Training

Opposite: Rangers learning how to deactivate snares in Malaysia

Opposite Circle: A rare look at the flat-headed cat in Malaysian Borneo

When it comes to protecting cats in the wild, tropical rainforest sites across the globe are among the most challenging. With tiny law enforcement teams responsible for controlling vast areas of mountainous forest, poachers often have the advantage. In 2018, Panthera and local partner Rimba worked to improve protection in Malaysia's Taman Negara National Park by refining forest tactics and offering intensive, targeted training to help law enforcement stay one step ahead.

A deep analysis of poacher behavior in the park showed that the greatest threat to Kenyir's tigers is poachers from Vietnam, Cambodia and Thailand who go into the forest in large teams for up to three months, laying snares and searching for agarwood. Armed with a better understanding of these tactics, our teams created novel operational maps and prioritized sectors for patrol based on risk of incursion, which led to increased detections in 2018.

To augment the Department of Wildlife and National Parks' (DWNP) law enforcement patrols, three teams of long-range scouts, with excellent bush skills, have been recruited from across the Malaysian Peninsula and Borneo. The teams spend weeks on patrol searching for signs of recent incursions. When they spot one, they call in DWNP Rapid Response Teams to arrest the poachers that are trespassing within the park and killing wildlife.



With skills now honed over several years with multiple trainings, and increasing ability to detect poachers in this difficult terrain, the small but mighty law enforcement teams in Kenyir are gaining the upper hand on poachers. Our joint protection efforts with DWNP in 2018 not only led to poacher arrests but, critically, succeeded in preventing certain poachers from entering the heart of the park—eliminating their ability to kill.

Lessons learned from the work in Kenyir are now being shared across the peninsula in training events while a working group has been set up specifically to tackle the Indochinese poaching threat.

OUTSMARTING POACHERS

Thanks to highly specialized training that gives them the upper hand in challenging forest terrain, rangers in Kenyir are stopping poachers before they kill.

TAMAN NEGARA NATIONAL PARK, MALAYSIA

4 Out of 8 active incursions by poaching gangs disrupted

5 Poachers arrested

145 Snares deactivated

46 Snares seized before being deployed

Results January-December 2018

ONE TO WATCH



Malaysian Borneo is considered one of the last strongholds for the bay cat, flat-headed cat and Sunda clouded leopard. A Panthera project implemented in 2018 focused on two landscapes in Sabah that have been impacted by logging and poaching: Deramakot Forest Reserve and Tangkulap Forest Reserve.

Our surveys have shown that both areas are of great conservation importance for wild cats. Deramakot, in particular, likely has the highest number of camera trap records of the flat-headed cat across their natural range. The surveys, which we have been conducting since 2008, will provide us with a unique opportunity to examine changes in wild cat distribution over a 10-year period.

Program Highlights

Central and South America

“We will honor Alan Rabinowitz’s legacy by building a movement to preserve the jaguar and its essential wildness—a wildness, Alan argued—that is also essential to us and the human spirit.”

- DR. HOWARD QUIGLEY,
Executive Director, Conservation Science
Director, Jaguar Program

The Jaguar Corridor Initiative is one of the most ambitious conservation projects ever undertaken, seeking to maintain connectivity throughout the jaguar’s 5,000-mile range from northern Mexico to northern Argentina. With active programs in 11 range countries focused on securing priority jaguar populations and their landscapes, Panthera is the world leader in jaguar conservation.

The majority of activities in Central and South America involve protecting jaguars from conflict with humans and, as of late 2018, from wildlife trafficking—an increasing danger to jaguars in the region.

Jaguars co-exist with numerous other cat species, including pumas and small cats like the ocelot, margay and jaguarundi. In 2018, Panthera extended its puma conservation activities into Chilean Patagonia to increase tolerance for these predators among the region’s ranchers. In the vast Torres Del Paine National Park, plans are underway to improve the puma’s standing by providing unparalleled viewing opportunities for ecotourists—and new revenue streams from conservation.

BIG CATS



Puma
Puma concolor



Jaguar
Panthera onca

SMALL CATS

Andean Mountain Cat
Leopardus jacobita

Bobcat
Lynx rufus

Geoffroy’s Cat
Leopardus geoffroyi

Jaguarundi
Puma yagouaroundi

Kodkod
Leopardus guigna

Margay
Leopardus wiedii






Northern Oncilla
Leopardus tigrinus

Ocelot
Leopardus pardalis

Pampas Cat
Leopardus pajeros

Southern Oncilla
Leopardus guttulus

MAP KEY

-  Featured Project Site
-  Jaguar Project Site
-  Puma Project Site
-  Central America Region
-  South America Region





Central America

Above: Alejandro de Jesus explains how to use a lightning rod at Panthera's first anti-predation ranch in Mexico

Opposite: Male jaguar in the rainforest at night, Tortuguero National Park, Costa Rica

Opposite Circle: Barbara Escobar checks coordinates of rangers' SMART patrols

To increase tolerance for jaguars in rural communities and reduce retaliatory killing, forming mutually beneficial relationships with the people who share their landscapes is key. In 2018, Panthera strengthened those bonds in Central America by working with communities in critical corridors to protect livestock and livelihoods.

In Panama's Lago Gatun-Santa Fe Corridor, where jaguars move through the Donoso Protected Area between Santa Fe and El Cope National Parks, Panthera established four pilot anti-predation ranches. With funding from the U.S. Fish and Wildlife Service, Panthera trained 41 ranchers in Coclesito, Donoso District to implement protective measures, such as electric fencing, and low-tech deterrents, like bells and lighted collars for their cattle. During the last four months of 2018, monthly surveys showed no predation events at these ranches. Next up: the establishment of a permanent jaguar conflict response team to support ranchers when predation incidents do occur.

In Costa Rica, where Panthera established the region's first conflict response team six years ago, the government-supported Unidad de Atención de Conflictos con Felinos (UACFel) continued to defuse conflict by swiftly answering farmers' calls for assistance with predation incidents across our large network of ranches. In 2018, Panthera convened meetings for UACFel members from across the country with the new Minister and Vice Minister of Environment,



who committed ongoing support for the unit. Additionally, Panthera initiated projects to address conflict in two predation hotspots: around Tortuguero National Park on the Caribbean coast and near the proposed Maquenque National Park in northern Costa Rica.

Panthera Mexico established the country's first anti-predation ranch in 2018 in the jaguar-rich and development-threatened Yucatan. The ranch lies in a critical corridor between Laguna de Términos and the Calakmul Reserves, a human-dominated landscape ideally situated to demonstrate and continue to analyze anti-predation techniques. With our Costa Rica experience as a guide, we teamed up with local partners to train Vigilance Committee members to become first responders to predation incidents.

A YEAR OF FIRSTS



First anti-predation ranches established in Panama and Mexico



First use of acoustic monitoring to detect illegal hunting



First binational agreement signed to protect jaguars
(see story below)

BREAKING DOWN BARRIERS



In 2018, Guatemala Country Coordinator Barbara Escobar brought conservation stakeholders from her country together with their counterparts in Honduras to design a first-of-its-kind binational collaboration. The goal? To secure a key piece of the Jaguar Corridor in the Sierra del Merendón, a mountain range that extends across the border of Guatemala and Honduras.

Under the new agreement, rangers and scientists from Guatemala and Honduras are conducting community patrols in Cusuco National Park in Honduras and Sierra Caral National Protected Area in Guatemala to gather information about threats to jaguars, and creating a shared database in SMART. With Cornell University, the teams are also doing acoustic monitoring to analyze and identify gun-hunting patterns. The data will help to focus law enforcement on the areas of greatest need.



South America

Above: Students and teachers at a Jaguar School workshop in Colombia

Opposite: Panthera staff, including Esteban Payán and Fred Launay, survey cattle on a Colombian anti-predation ranch

Opposite (circle): The illegal trade of wild animal parts has led to an increase in jaguar poaching

The protection of critical jaguar habitats in both densely forested areas and human-dominated agricultural landscapes served as the focal points for Panthera's activities in South America in 2018.

With funding from USAID's Natural Wealth initiative, Panthera launched the Sustainable Livestock Landscapes program, focusing on eight large anti-predation ranches in Colombia's Llanos region. Panthera Colombia staff teamed up with experts from Fundación Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria (CIPAV) to install anti-predation systems on the ranches, while also working to increase production in the natural savannahs and restore riparian habitat. Together, the efforts are designed to decrease livestock's vulnerability to attacks and improve outcomes for farmers, while allowing jaguars and pumas to flourish. Ultimately, these teams will train over 200 people in sustainable livestock practices, forest restoration and responding to human-wildlife conflict.

Another innovative venture designed to protect jaguar habitat—and mitigate the effects of climate change—expanded in 2018 to two additional project sites in Colombia and one in Peru. Conexión Jaguar, a public-private partnership between Panthera Colombia, ISA and South Pole, generates income for communities conducting forest protection and restoration projects through the sale of carbon credits. For each project, Panthera conducts a camera trap survey to



establish a baseline for the presence of jaguars and their prey, plus other flora and fauna, and attaches that information to the carbon credit sale.

In 2018, our studies helped make a strong case for forest conservation, registering endemic and critically endangered species in Colombia, such as the blue-billed curassow and the cotton-top tamarin. At our project in San Martin, Peru, we recorded the northern oncilla, the northern pudú and the western mountain coati for the first time in the area. In 2019, Conexión Jaguar plans to launch four new projects in jaguar corridors in Colombia, Brazil and Peru, and in puma range in Chile.

FIRST IN COLOMBIA

With funding from the National Geographic Society, Panthera Colombia began the country's first jaguar demographics project, radio-collaring two jaguars, including a pregnant female, in the Llanos region. Camera trap studies in the area revealed the presence of

 **13** Jaguars

ONE TO WATCH



In late 2018, Panthera began developing the evidence base for conducting big cat counter-wildlife-trade activities in the Andean region, where jaguar poaching is an emerging threat. The first activities under a new grant from the U.S. Department of State's Bureau of International Narcotics and Law Enforcement Affairs (see story on page 37) included conducting in-depth research to understand the who, what, where, when and how of poaching and trafficking jaguar parts in the region, with a focus on Bolivia, Colombia, Peru and Suriname. Panthera's team held initial meetings with national, regional and local authorities, NGOs and trafficking experts in preparation for developing a regional strategy and country-by-country action plans.

Program Highlights

North America

“Planning for coexistence with wild cats is urgently needed in the U.S., where sprawling development is putting us in ever-closer contact with our native carnivores.”

- **DR. MARK ELBROCH**
Director, Puma Program

Panthera’s groundbreaking puma research, focused in the American West, is indicative of the potential to cast mis understood—and often maligned—wild cats in a new light and engaged diverse stakeholders in developing sustainable practices and policies to ensure their long-term survival.

Our established and proven puma conservation model can scale to other significant landscapes in North America where both research and conservation efforts will positively impact not only pumas and other wild cats, but the health of entire ecosystems.

With its landmark studies in the Tetons completed, Panthera’s Puma Program turned its attention to studying the movement of pumas and bobcats in western Washington’s Olympic Peninsula. The Olympic Cougar Project, launched in late 2018, is a collaborative, multinational effort to preserve connectivity along this critical and rapidly changing wildlife corridor.

As wild lands in the U.S. give way to development and interactions between people and carnivores increase, the need for strong public engagement in advocating for practical, science-based conservation policies becomes more and more important to the future of the vulnerable wild cats we too often take for granted.

BIG CATS



Puma
Puma concolor




SMALL CATS

Bobcat
Lynx rufus

Canadian Lynx
Lynx canadensis

Ocelot
Leopardus pardalis

MAP KEY

-  Featured Project Site
-  Puma Project Site
-  North America Region



Olympic Peninsula
Washington

Teton Range
Wyoming



North America

Above: Olympic Cougar Project team members collecting data from a collared puma

Opposite: Lower Elwha Tribe member and graduate student Cameron Macias is a Panthera Kaplan Award recipient

Opposite (circle): A close-up of very young puma kittens in their den

Panthera's Puma Program embarked on a new endeavor in 2018: the Olympic Cougar Project. Launched in November, the multinational effort will assess the connectivity of pumas—or cougars, as they're called in the Pacific Northwest—in western Washington state.

The Olympic Peninsula is fast becoming an island. The Interstate 5 highway corridor south of Seattle is one of the fastest developing regions on the West Coast and is already severing wildlife connectivity in western Washington.

Pumas moving along the corridor must navigate increasingly deforested habitats, industry sprawl, expanding suburbs and countless spidery road-webs built to support the traffic of a growing population along the I-5 corridor from Tacoma, Washington, to the Oregon border.

Clearly, pumas need better options.

The Olympic Cougar Project is using GPS data from radio-collared pumas to track their movement throughout this complex and crowded landscape. The study will identify bottlenecks and blockages in wildlife corridors, providing much-needed data for state developers to inform future modifications to I-5 and other human transportation corridors.

In addition to studying corridors and connectivity on the Olympic



Peninsula, Panthera and its partners will also be studying puma dispersal, assessing the coexistence of pumas and bobcats and analyzing puma movement and genetic data throughout western Washington.

Importantly, the project brings together local stakeholders with Panthera scientists in a unique collaboration. The Lower Elwha Klallam was the first Native American tribe to join the project. An historically independent tribe, the Lower Elwha Klallam receives funds from the Administration for Native Americans to study pumas and predation as part of their Seventh Generation Wildlife Management Plan. The Skokomish Tribe came on board in December, and discussions are ongoing with several others in the area.

Native American tribes are their own nations and govern their own wildlife and territories, making their participation critical to the mission and success of the project. The project seeks to convene diverse voices with common interests in conservation to help ensure that policies affecting the Olympic Peninsula will benefit pumas and preserve all wildlife for generations to come.

TRACKING PUMAS TO SAVE THEM

The Olympic Cougar Project uses GPS collars to track cats' movement through the landscape and study their behavior. The collaring project, which is being conducted by our partners in the Lower Elwha Klallam and Skokomish tribes, is continuing in 2019.



4

Pumas collared in 2018



1

Collared female gave birth to kittens in 2018

SCIENCE EVOLVES PUMA POLICY



Panthera's puma scientists published a raft of research in 2018, adding to an impactful body of work from nearly 20 years in Wyoming's Teton Mountains. One critical publication, by Connor O'Malley et al., analyzed puma denning behaviors in order to reduce the startling number of kittens orphaned by hunters each year. The paper was published in the *Wildlife Society Bulletin*.

The scientists studied new mothers' movements to pinpoint when the kittens begin to leave the den with them. They determined that delaying legal puma hunting until December 1 would make it easier for hunters to detect family groups and avoid hunting females raising kittens.



Big on Small Cats

Above: Bobcat kittens caught on camera trap in California

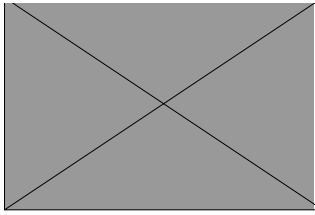
Opposite (left to right): Margay, clouded leopard, Pallas's cat, rusty-spotted cat

There are 40 recognized species of wild cats in the world, and while most people can identify the seven big cats, few are able to name the 33 smaller ones. Panthera's new Small Cats Program will seek to expand our understanding of these increasingly threatened species and how to protect them.

Compared to their larger relatives, very little is known about the rare and secretive small cats. Although some species have never even been studied in the wild, we do know that many are in danger of extinction, threatened by habitat destruction, poaching, conflict with people, and the exotic pet trade.

Of the five continents roamed by small cats, Asia has the most to lose. Not only is it home to the greatest number of small cat species (14!), it's also where the animals are least understood and under greatest threat. The Small Cats Program will initially focus on high-priority areas across Southeast Asia, home to the clouded leopard, flat-headed cat, Bornean bay cat, marbled cat, Asian golden cat and fishing cat.

Our research and action is aimed not only at saving the endangered small cats from extinction, but preventing the more common species from becoming endangered. As the world's only organization dedicated to the conservation of the world's wild cats, we're proud that Panthera will now also provide small cats the attention they so desperately need.



Meet the Small Cats

Discover the world's 33 small cat species, found on 5 of the globe's 7 continents.

AMERICAS		Weight	Diet
EN	Andean Mountain Cat <i>Leopardus jacobita</i>	4kg; 8 lbs (single male)	
LC	Bobcat <i>Lynx rufus</i>	4-18 kg; 9-39 lbs	
LC	Canadian Lynx <i>Lynx canadensis</i>	5-17 kg; 11-37 lbs	
LC	Geoffroy's Cat <i>Leopardus geoffroyi</i>	3-7 kg; 7-15 lbs	
LC	Jaguarundi <i>Puma yagouaroundi</i>	4-7 kg; 9-15 lbs	
VU	Kodkod <i>Leopardus guigna</i>	2-3 kg; 4-6 lbs	
NT	Margay <i>Leopardus wiedii</i>	3-4 kg; 7-9 lbs	
VU	Northern Oncilla <i>Leopardus tigrinus</i>	2-3 kg; 4-6 lbs	
LC	Ocelot <i>Leopardus pardalis</i>	7-18 kg; 16-39 lbs	
NT	Pampas Cat <i>Leopardus pajeros</i>	2-3 kg; 4-6 lbs	
VU	Southern Oncilla <i>Leopardus guttulus</i>	1-3 kg; 2-6 lbs	

ASIA		Weight	Diet
VU	Asian Golden Cat <i>Catopuma temminckii</i>	9-15 kg; 20-33 lbs	
EN	Bornean Bay Cat <i>Pardofelis badia</i>	2 kg; 4 lbs (emaciated female)	
VU	Chinese Mountain Cat <i>Felis bieti</i>	7-9 kg; 16-19 lbs	
VU	Fishing Cat <i>Prionailurus viverrinus</i>	6-16 kg; 14-35 lbs	
EN	Flat-headed Cat <i>Prionailurus planiceps</i>	2-3 kg; 4-6 lbs	
VU	Indochinese Clouded Leopard <i>Neofelis nebulosa</i>	12-24 kg; 25-55 lbs	
LC	Jungle Cat <i>Felis chaus</i>	3-12 kg; 7-26 lbs	

AFRICA		Weight	Diet
EN	African Golden Cat <i>Caracal aurata</i>	6-16 kg; 13-35 lbs	
VU	Black-footed Cat <i>Felis nigripes</i>	1-2 kg; 2-4 lbs	
LC	Caracal <i>Caracal caracal</i>	7-26 kg; 16-57 lbs	
LC	Sand Cat <i>Felis margarita</i>	2-3 kg; 4-6 lbs	
LC	Serval <i>Leptailurus serval</i>	6-18 kg; 13-39 lbs	

EURASIA/AFRICA		Weight	Diet
LC	Wildcat <i>Felis silvestris</i>	2-7 kg; 4-15 lbs	

EUROPE		Weight	Diet
LC	Eurasian Lynx <i>Lynx lynx</i>	13-29 kg; 29-64 lbs	
EN	Iberian Lynx <i>Lynx pardinus</i>	9-15 kg; 20-33 lbs	

		Weight	Diet
LC	Leopard Cat <i>Prionailurus bengalensis</i>	1-7 kg; 2-15 lbs	
NT	Marbled Cat <i>Pardofelis marmorata</i>	3-5 kg; 7-11 lbs	
NT	Pallas's Cat <i>Otocolobus manul</i>	3-5 kg; 7-11 lbs	
NT	Rusty-spotted Cat <i>Prionailurus rubiginosus</i>	1-2 kg; 2-4 lbs	
VU	Sunda Clouded Leopard <i>Neofelis diardi</i>	12-24 kg; 25-55 lbs	
LC	Sunda Leopard Cat <i>Prionailurus javanensis</i>	3-7 kg; 6-15 lbs	

IUCN RED LIST STATUS

- LC** Least Concern
- NT** Near Threatened
- VU** Vulnerable
- EN** Endangered
- CR** Critically Endangered
- EW** Extinct in the Wild
- EX** Extinct

DIET

- Rodents
- Rabbits and Small Mammals
- Fish and Aquatic Life
- Ungulates and Larger Prey
- Birds and Eggs
- Reptiles and Small Vertebrates
- Insects and Invertebrates
- Unknown



The Jaguar 2030 Roadmap

A GLOBAL AGREEMENT TO PROTECT JAGUARS

Above: High school students in Sinaloa, Mexico, performing an elaborate jaguar dance

Opposite: Map showing key Jaguar Corridor sites and biodiversity areas

Panthera and other leading conservation organizations from around the world joined with 14 jaguar range states in 2018 to launch the Jaguar 2030 Conservation Roadmap for the Americas. Unprecedented in the scope of its international cooperation, the roadmap seeks to strengthen the Jaguar Corridor, ranging from Mexico to Argentina, by securing 30 priority jaguar conservation landscapes by the year 2030.





The roadmap builds on the vision and life's work of the late Dr. Alan Rabinowitz to secure the Jaguar Corridor through both national and international commitments to jaguar conservation and sustainable development. Dr. Rabinowitz was instrumental to the development of the roadmap and the first convening of stakeholders at the United Nations in March 2018.

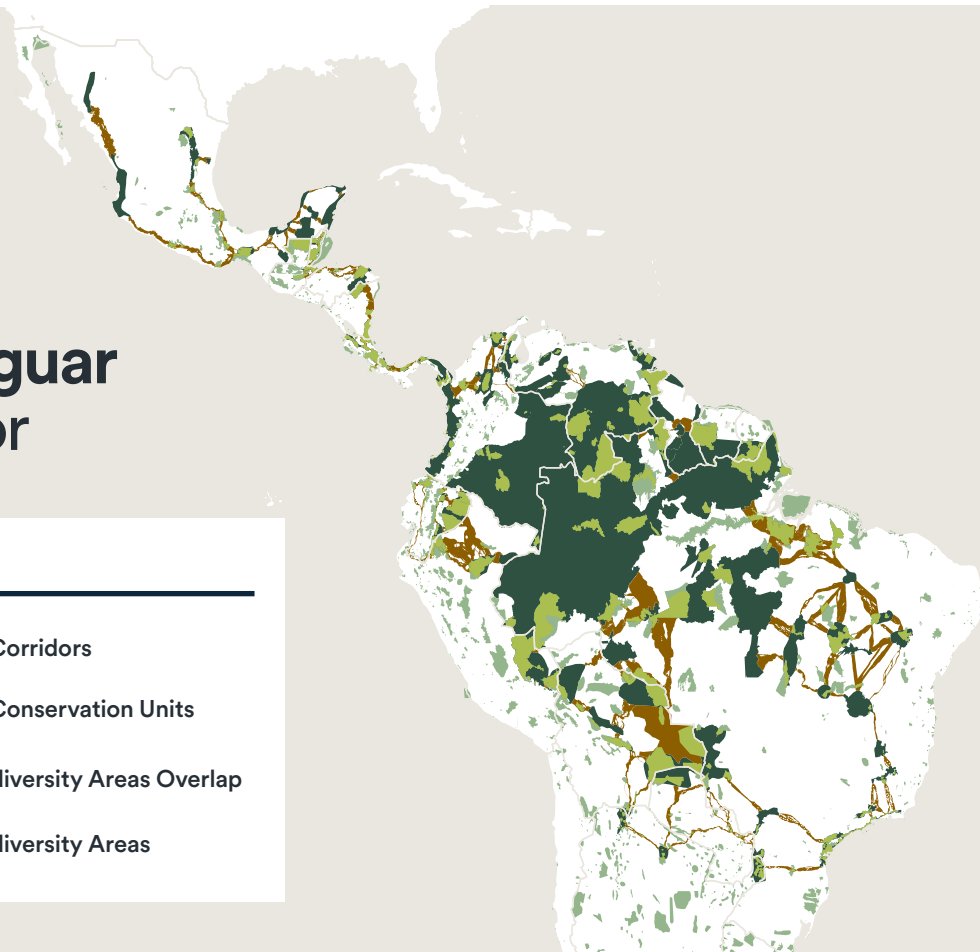
In a joint statement following the meeting, the jaguar range countries and partners unanimously agreed to work together to counter the multiple threats to jaguars, including habitat loss and fragmentation, livestock conflict and the growing trafficking of jaguar parts—helping to preserve the natural and cultural heritage that jaguars represent for many Latin American cultures.

By supporting the Jaguar 2030 Roadmap, the jaguar range countries reaffirm their commitment to integrated

The Jaguar Corridor

MAP KEY

-  Jaguar Corridors
-  Jaguar Conservation Units
-  Key Biodiversity Areas Overlap
-  Key Biodiversity Areas



development. The project aims to facilitate a transition toward a low-carbon economy resilient to climate change in alignment with the 2030 Agenda, the Sustainable Development Goals, the Paris Agreement on Climate Change and the Aichi Targets.

In conjunction with the launch of the 2030 Roadmap, the participants declared November 29 as International Jaguar Day. The annual event will raise awareness about threats facing the jaguar, conservation efforts ensuring its survival and the role of the jaguar as a keystone species.

PATHWAY #1

Range-wide coordination in support of protection, connectivity, scaling up and enhancing ambition

PATHWAY #2

Development and national-level implementation of range countries' national strategies, including priority JCU strengthening plans, improved national-level enabling environments and national contributions to transboundary efforts

PATHWAY #3

Scaling up of conservation-compatible sustainable development models in JCUs and Corridors, including transboundary landscapes

PATHWAY #4

Enhancing the financial sustainability of systems and actions aimed to conserve jaguars and associated ecosystems



Fighting Back Against Illegal Wildlife Trade

Above: Confiscated wild animal parts, including cat skins and bones

Opposite (left to right): Tiger in Ranthambore Tiger Reserve; jaguar in the Pantanal, Brazil; a juvenile puma; Mozambique law enforcement team removing snares

Despite Panthera's extensive and effective efforts to protect big cat strongholds around the world, illegal trafficking of products derived from big cats for domestic and international markets has the potential to undermine our collective conservation gains.

In late 2018, Panthera was awarded a prestigious grant from the U.S. State Department's Bureau of International Narcotics and Law Enforcement Affairs to counter this growing threat. The resulting project is mobilizing a unique Big Cat Intelligence Network to coordinate monitoring and enforcement efforts as wild cats become increasingly tangled in the web of organized crime and global trade syndicates.

Working to create Big Cat Intelligence Hubs in four core regions in Southeast Asia, Central Asia, South America and Southern Africa, Panthera is maximizing global anti-trafficking efforts to promote better coordination and information sharing amongst range-state governments, wildlife conservation partners and global institutions. Our enforcement specialists are using a data-led strategy to monitor illegal trade patterns; share critical information on big cat trafficking; and empower key stakeholders with the tools and training to make a long-term impact in reducing poaching and trade of big cat species.

By scaling efforts across regional, national and provincial levels, Panthera's work to target criminal enterprises is unprecedented for big cats—because it takes a network to defeat a network.

Panthera's Reach

Panthera's conservation initiatives and thought leaders were featured in hundreds of prominent media outlets in 2018, bringing the plight of the world's wild cats to millions. The charismatic animals that we so passionately protect captured hearts and minds with stories both distressing and hopeful, engaging and expanding our global community of supporters.

Some highlights:



THE VALUE OF BIG CATS

The New York Times published an op-ed co-authored by Fred Launay and CITES' John Scanlon calling for increased global investment in species conservation to protect our vanishing predators and their wild landscapes.



JAGUARS IN VIRTUAL REALITY

Produced by VICE's Motherboard and premiered at SXSW, *Living With Jaguars* is an interactive virtual reality film profiling Panthera's work to save jaguars in the Brazilian Pantanal.



PUMAS, PUMAS, PUMAS

Panthera's puma research generated headlines as new discoveries continued to emerge from the Teton Cougar Project. The stunning body of science both informed policy and contributed to improving public opinion of America's lion.



THE LIONS OF LIMPOPO

The Guardian's Damian Carrington embedded with Panthera's law enforcement team in Mozambique's Limpopo National Park to document the emerging threat of lion poaching for their *Age of Extinction* series.

Investing in the Future

In addition to Panthera's field programs, where we invest the great bulk of our human and financial capital, Panthera operates four grant programs open to highly qualified candidates from around the world. In 2018, we granted a total of \$200,000 to the following recipients:

WINSTON COBB MEMORIAL FELLOWSHIP

Supports field-based internships for early career conservationists on projects led by Panthera or partners

Gabrielle Gagnon
Cheetah Program, Zambia

KAPLAN GRADUATE AWARDS

Supports biology graduate students working on all wild felids, with a particular focus on threatened species

Anna Kusler, Montana State University
Connectivity, conservation and ecology of cheetahs in the KAZA

Cameron Macias, University of Idaho
Bobcat and cougar population estimation and occupancy modeling in the Lower Elwha Klallam Tribe's Historic Use Area on the North Olympic Peninsula

Anya Ratnayaka, The University of Queensland, Australia
Ecology and behavior of fishing cats in urban wetlands of Colombo, Sri Lanka

Jay Schoen, Columbia University
*Filling the data gap: measuring jaguar (*Panthera onca*) occupancy and estimating density in an unstudied reserve within Paraguay's Upper Paraná Atlantic Forest*

RETURNING KAPLAN GRANTEES

Laura Gigliotti, Clemson University
Changes in herbivore abundance and carnivore community structure in response to prescribed burning: effects of bottom-up and top-down interactions on cheetah demography

Travis King, Washington State University
Landscape genetics and camera trapping as a basis for multi-carnivore connectivity and corridor assessment in Honduras

Michelle Peziol, Washington State University
Quantifying the puma's keystone roles in the Southern Yellowstone Ecosystem: conservation implications for pumas in the 21st century

SMALL CAT ACTION FUND (SCAF)

Supports conservation and research on many of the 33 small cat species

Tiasa Adhya, St. Xavier's College, University of Bombay
*Ecological and anthropogenic covariates affecting fishing cat (*Prionailurus viverrinus*) habitat use in Chilika basin*

Susan Cheyne, Borneo Nature Foundation
Initiating cat conservation in the Barito Ulu Landscape, Indonesian Borneo

Sagar Dahal, Small Mammals Conservation and Research Foundation
Conservation of fishing cat in the human dominated landscape of central Tarai, Nepal

Roshan Guharajan, Leibniz Institute for Zoo and Wildlife Research
The effects of anthropogenic activities on remaining flat-headed cat and bay cat populations in Sabah, Malaysian Borneo

Elizabeth Hofer, Panthera Kyrgyzstan
Conservation ecology of Lynx: Kyrgyzstan: opportunity to combine an information gap with capacity building in Central Asia

Vanessa Herranz Munoz, Bastet Conservation
Building ranger and community capacity for fishing cat conservation in the Cambodian Mangroves

Dr. Alexander Sliwa, Koelner Zoo
Sand cat ecology and conservation in the Southern Moroccan Sahara

Top to bottom: Cameron Macias doing labwork in the North Olympic Peninsula; snow leopard caught on camera trap in the Altai Mountains of Mongolia; Tiasa Adhya in a training workshop for flat-headed cat conservation in Chilika Basin



SABIN SNOW LEOPARD GRANT

Supports conservation efforts on the snow leopard in Asia

Lungten Dorji, Wangchuck Centennial National Park

Assessing impact of cordyceps collectors to the habitat of snow leopard in Wangchuck Centennial National Park and educating local herders on importance of snow leopard

Sydney Greenfield, Beijing Forestry University

A survey of local factors driving depredation and creating risk models and maps and recommendations for two reserves in China

Charlotte Hacker, Duquesne University

*Snow leopard (*Panthera uncia*) prey use and dependence on livestock in Qinghai, China, and implications for conservation*

Monsoon Pokharel Khatiwada, Alumni Association for Conservation and Development

Conservation of snow leopard in the Kanchenjunga-Singhalila Complex of Eastern Himalaya of Nepal

Muhammad Ali Nawaz, Snow Leopard Foundation

Predator-proof corrals and livestock insurance programs to reduce human-wildlife conflicts and protect snow leopards in Karakoram-Pamir, northern Pakistan

Francesco Rovero, Museo delle Scienze

Assessing occurrence and conservation status of snow leopard in the Altai Mountains of NW Mongolia, with emphasis on patterns of co-occurrence with livestock and wild ungulates

Natalie Schmitt, McMaster University

A rapid in situ approach for identifying snow leopard DNA





2018 Financial Summary

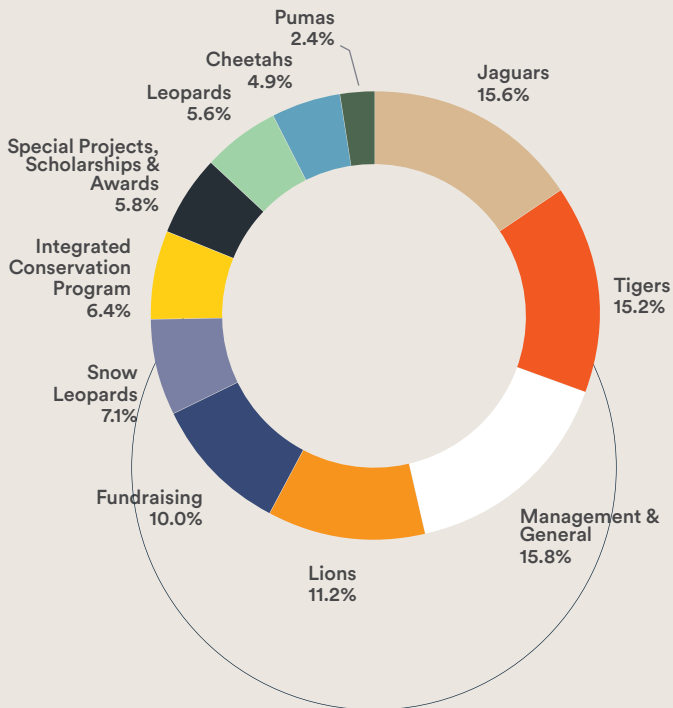
Panthera, through its worldwide conservation efforts, continued its pledge to maximize the impact of donor support. Investment in infrastructure to support existing operations and the overall organizational restructuring continued in 2018, strengthening necessary complements to our programs both now and in the future. Despite this additional investment and a slight decrease in revenue (3%), the percentage of revenue spent on program activities continued at a healthy 74%, compared to 80% in 2017.

Copies of Panthera's complete audited financial statements can be found on our website at panthera.org.

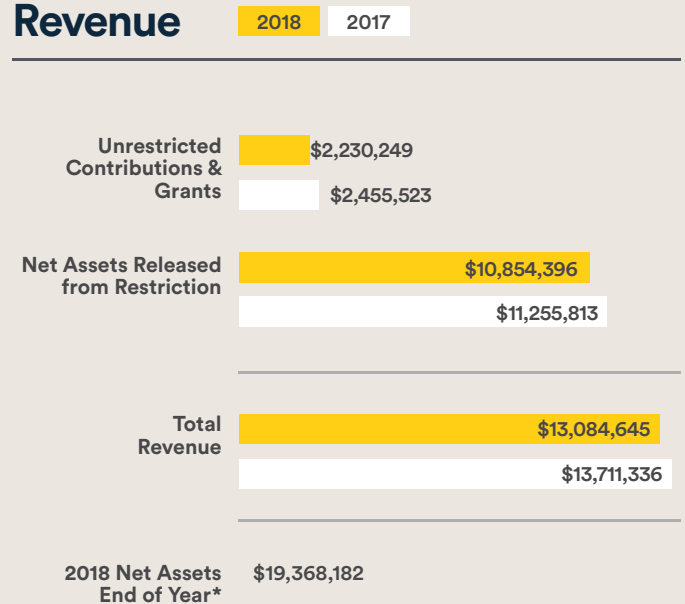
Total Expenses

2018 Total Expenses	\$14,002,629
2017 Total Expenses	\$13,403,588

2018 Expenses



Revenue



* Total Net Assets consist of \$1,205,800 of net assets without donor restrictions and \$18,162,382 of net assets with donor restrictions. Assets are deemed restricted until the time or use restriction of the donation is satisfied. \$14,965,458 of these temporarily restricted assets, representing the outstanding Global Alliance pledges net of unamortized discounts, are time-restricted as they have not yet been received by Panthera.

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Cheetah kitten from the Ngorongoro Conservation Area, Tanzania

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Scientific Publications

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Top to bottom: A cheetah lounges in front of a camera trap in South Africa; a leopard investigates a camera trap in South Africa; an ocelot caught on camera in Costa Rica

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Securing Strongholds



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At Panthera, conserving cats is what we do. All wild cats, and big cats in particular, are some of the most imperiled species on the planet, threatened by habitat loss, illegal hunting of their prey and poaching of the cats themselves to supply international demand for their body parts. With many cats across the globe in perilously low numbers, our strategy is focused on immediately securing their most important habitats. We work with protected area managers and rangers to improve law enforcement and protect these critical sites from further losses of prey and cats, as every individual counts.

This is particularly true for tigers, whose numbers have plunged to about 3,900 left in the wild. Amongst all big cats, tigers are the most sought by poachers because their parts are the most prized for use in traditional medicine. Across the tiger's range, most remaining populations are concentrated in source sites—areas that contain concentrations of tigers that have the potential to repopulate larger landscapes. Securing these sites is the best hope we have to save the species. Over the past decade-plus, we have engaged with 29 sites across tiger range. Now, by focusing on a few focal sites with high recovery potential, we are refining our approach and scaling the impact of our work.

One such site is Manas National Park in India, where, with our partners Aaranyak, Wildlife Conservation Trust and the local government, we have helped create an adaptive, evidence-based law enforcement system that has yielded significant results (see story on page 19). By creating two mobile patrol teams, the Manas Tigers and Manas Panthers, and setting up a Panthera/Aaranyak support team that helps analyze patrol data to better guide enforcement, we have been able to respond to threats in real time. We couple these efforts with a program that helps people living on the borders of Manas reduce their dependence on forest resources while improving their quality of life. Even basic uses of the park for subsistence, such as gathering firewood or grazing livestock, are illegal; they degrade habitat and increase the likelihood of human-tiger conflict that may

lead to the killing of people and tigers. Providing better alternatives, like propane stoves for cooking or fodder crops for livestock, benefits local residents and their families, reduces their need to enter the park and allows law enforcement patrols to focus on catching poachers.

Over the past three years, we've recorded a dramatic decline in human use of the park and a significant rise in tiger numbers. A critical next step is to engage actively with the communities around Manas to improve people's lives, build goodwill and create a constituency for conservation aimed at reducing the poaching of species.

With Panthera's reorganization (see story on page 5), we are developing better ways to share lessons learned and disseminate best practices, not just within each species program but across species and landscapes around the globe. The anti-poaching and community engagement activities that started in the Tiger Program in 2013 are now part of Panthera's new Counter Wildlife Crime program (see story on page 37), rolling out in poaching hotspots worldwide, where they will be part of strategies customized to address the unique legal, political, ecological, economic and sociological factors and challenges in each locale.

To help us secure the strongholds of the world's remaining great and small cats, we look to your involvement. From everyone at Panthera, thank you for your support and encouragement to save cats.

An Arabian caracal caught
on camera trap in the Hawf
Protected Area, Yemen

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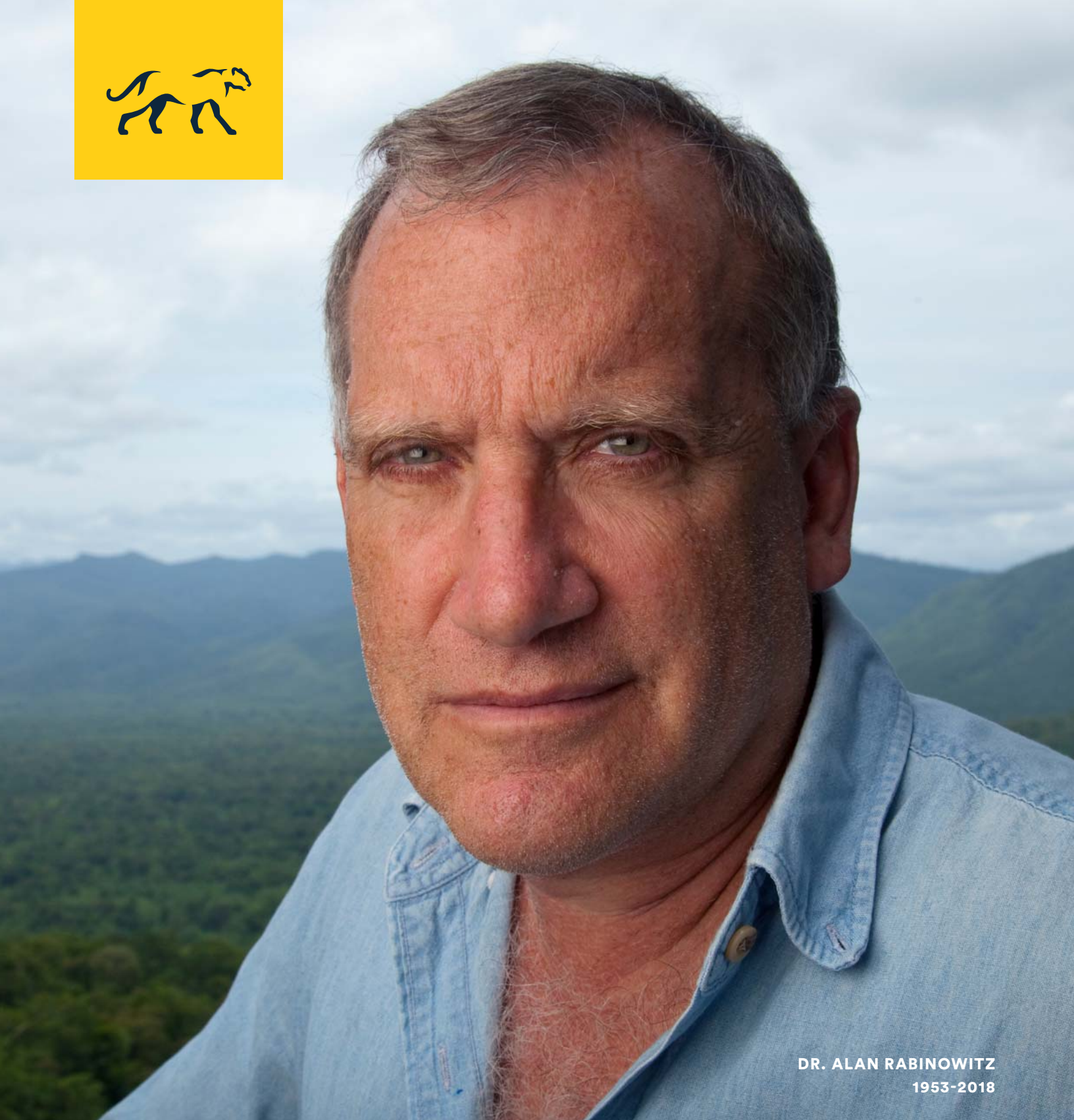
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“Alan inspired thousands of people the world over with his courage, commitment and perseverance. There was no finer man—the toughest, yet deeply kind.”

JANE ALEXANDER

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