# Panthera

## 2016 Annual Report

PANTHERA

## “I COULD HARDLY BELIEVE MY EYES”

Our cover image captures the moment after a snow leopard crossed the freezing Uchkul River in Sarychat-Ertash State Nature Reserve in eastern Kyrgyzstan. The photographer, Sebastian Kennerknecht, had hiked for miles in the thin mountain air looking for spots to place camera traps—and when he retrieved this image, he could hardly believe his eyes.

“A gorgeous snow leopard, dripping wet in front of a sunrise-lit alpine sky, was staring straight at me,” he said. “I was so grateful that this cat allowed us a glimpse into its otherwise secretive life.

“As a wildlife photographer,” he continued, “this image is incredibly special to me, but as a conservationist, it’s important to appreciate why it can exist in the first place. Panthera’s actions in Kyrgyzstan … are major reasons snow leopards still inhabit this part of central Asia. Their work is critical, and I am proud to be able to support it through my photography.”

# Panthera

## 2016 Annual Report

A cheetah cub in the
Arusha Region of Tanzania

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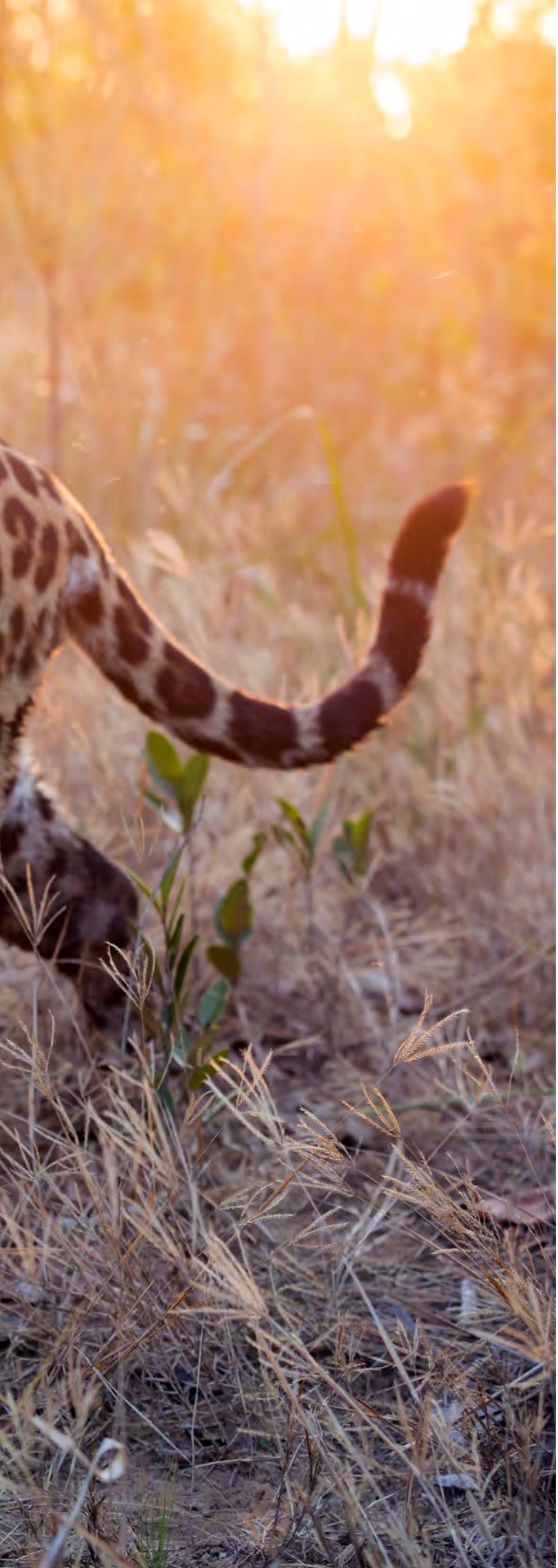


A young jaguar in Emas National Park in the Brazilian Cerrado

# **Panthera's** Mission

**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.**

# The Convening Power of Big Cats

**A MESSAGE FROM THE CHAIRMAN**

Having celebrated our first decade of saving wild cats, I'm pleased to report that Panthera's value proposition is more attractive than ever. We've evolved from a conceptual start-up to the leading advocate for cat conservation by continually proving ourselves in the field. And, thanks to our founding donors and partners, and the thousands who have joined us along the way, we are already making an impact on wild cat populations.

Our results and bold vision have continued each year to attract significant new and renewed investment from private foundations, corporations, government agencies, and individuals energized by our mission—and 2016 was no exception.

We kicked off the year with the launch of a unique alliance with Hermès, one of the most widely recognized and cherished brands in the world (see page 34). The impact of this important endorsement was felt far and wide, and we are enormously grateful to Pierre-Alexis Dumas and the entire Hermès family for the genuine passion with which they have engaged in our cause. It is a gift that keeps on giving.

Our momentum was further accelerated by the formation of the new Conservation Council, which now comprises more than 50 of the world's most notable figures from the realms of law enforcement, politics, media, the arts, and more. It is a force of global influence for cat protection unlike any other in the conservation sector. The members—though diverse in their vocations, geographies, and worldviews—are united by their shared optimism that together we can change the trajectory for wild cats, and, in so doing, preserve their vast landscapes.

As to be expected, the 10-year milestone brought with it a period of organizational metamorphosis. Over the past couple of years, we have welcomed six outstanding new members to Panthera's Board of Directors: Ross Beaty, Joshua Fink, Fred Launay, Nicole Mollo, Robert Quartermain, and, most recently, General Sir Graeme Lamb. We also said farewell to three long-time board members: Michael Cline, Edith McBean, and Merritt Paulson—brilliant environmental philanthropists who each played a crucial role in propelling Panthera to where it is today.

We are enormously grateful to the generous contributions in time and treasure of Edith and Merritt, who will both continue to play indispensable roles as go-to members of the Conservation Council. Meanwhile, Tigers Forever is delivering on its promise today because of Michael's passionate, clear-eyed vision and

A male leopard with one of his cubs on the cliffs of Jawai in Rajasthan, India

dynamic approach to saving tigers at a time when hope for the species was fading. As chairman of Tigers Forever, Michael remains a critical member of the Panthera team. With his invaluable support, and the extraordinary commitment of "Mr. Tiger" himself, Julian Robertson, and the Robertson Foundation, we will continue to set the pace in tiger conservation.

I never cease to marvel at the convening power of big cats. I see it expressed every day, from the devotion of our thousands of Camera CATalogue volunteers, to the largesse of our Global Alliance partners, His Highness Sheikh Mohammed bin Zayed of Abu Dhabi and India's Hemendra Kothari. To all of our supporters, we are proud and humbled that you have joined our community, given generously, and placed your trust in us to secure the future of these magnificent creatures.

**THOMAS S. KAPLAN, Ph.D.**
*Founder, Chairman of the Board*

**"It's no wonder that Panthera has attracted so many leading figures to its cause; they know that you must be smart and fearless to confront and solve the world's most intractable challenges—and Panthera is both."**

**GLENN CLOSE**
*Award-Winning Actress*
*Conservation Council Co-chair*

# A Decade of Saving Big Cats: 2006-2016

Panthera was founded in 2006 to introduce a new approach to conservation: saving wild cats as the key to conserving vast landscapes and all the life within them. To change the status quo would require a bold vision rooted in the best available science, and a commitment to collaboration at all levels. In just 10 years, Panthera and its partners have laid the groundwork for range-wide conservation of some of the world's most threatened big cat species. The timeline below highlights a handful of the groundbreaking accomplishments that, as we take them to scale, can recover the iconic wildlife and wild places that our planet needs to survive.

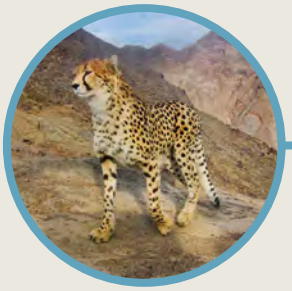
## 2006

Panthera, the world's only big cat conservation organization, is founded by Dr. Thomas S. Kaplan, Daphne Recanati Kaplan, and Dr. Alan Rabinowitz

The Tigers Forever Program and strategy are born, with a razor-sharp focus on bringing tigers back from the brink of extinction

Let Lions Live: Panthera launches Project Leonardo to protect Africa's largest big cat

## 2007



Panthera, Iran's Department of Environment, and WCS collar two Asiatic cheetahs in Iran—marking the world's first collaring of this critically endangered subspecies

## 2008

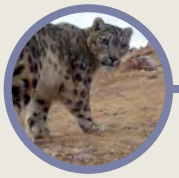
In its first year, the Puma Program records the world's first-ever adoption of two kittens by a female puma in Wyoming

Connect and protect: The Jaguar Corridor Initiative is founded to conserve jaguars from Mexico to Argentina

Panthera engineers the PantheraCam—the first of six camera trap models used to monitor and conserve wild cats

Asia's "Ghost of the Mountains" receives new protection with the launch of Panthera's Snow Leopard Conservation Program

## 2009



Panthera and Chinese NGO Shan Shui partner with Buddhist monks to protect snow leopards on the Tibetan Plateau

## 2010

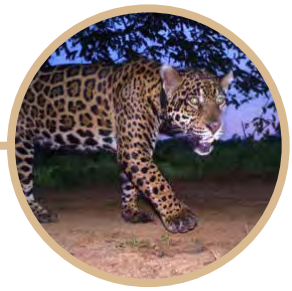
The Kaplan Graduate Awards surpasses $1M in grants awarded to young scientists, becoming the largest funder of wild cat conservation graduate students

## 2011

Panthera acquires Save the Tiger Fund, uniting the world's two most influential tiger conservation organizations

CBS' *60 Minutes* profiles Panthera's Pantanal Jaguar Project

## 2012



Jaguar populations in our Brazilian Pantanal study sites more than double from 2006-2012

Panthera's Tiger Task Force is formed, creating a team of paramilitary experts to combat poaching

First-ever footage of a female puma with kittens in a natal den filmed in Wyoming

## 2013

A zero tolerance poaching policy pays off: Sumatra records its highest ever tiger density estimates

Panthera tracks a leopard across three African nations, revealing the need for cross-border conservation efforts

## 2014

The Global Alliance for Wild Cats is created, forming a groundbreaking coalition of environmental philanthropists

Cheetahs are thrown a lifeline as Panthera's conservation program expands from Iran to Africa

## 2015

Panthera and Hermès establish the Robert Dallet Initiative for Wild Cat Conservation

The Furs for Life Project replaces 50% of real leopard skins with faux replicas in Africa, preventing thousands of leopard deaths

Cecil the lion is illegally killed by a trophy hunter in Zimbabwe, spurring global outrage

Panthera.org 2.0 is launched, alongside a new logo and visual identity

Panthera initiates a wildlife detection dog program in Central Asia to stem poaching and trafficking of snow leopards and their prey

Panthera and partners report that half of lions are likely to be lost in West, Central, and East Africa by 2035

## 2016

Tigers rebound in Parsa, Nepal, at Panthera's project site, instilling hope for the species

Panthera expands Leopard Program to Southeast Asia upon announcing the loss of 75% of the species' range

Panthera and partners confirm cheetah numbers are crashing, with just 7,100 remaining

Distinguishing people from wildlife, the PoacherCam is deployed in Asia and West Africa to prevent poaching

Panthera, Oxford University hold the Cecil Summit to chart a future for African lion conservation

A tiger family in the Tadoba Andhari Tiger Reserve in Central India

# Ready to Pounce

## A MESSAGE FROM THE CEO

In any field of endeavor, you should be able to define and measure success. In big cat conservation, there is a clear metric: increasing or stabilized numbers of cats. In 2016, we collected photographic evidence of recovering wild tiger populations at one-third of our Tigers Forever sites across Asia—a trajectory that, if continued, will result in a steady and significant increase in wild tiger numbers worldwide over the next decade. Not long ago, the world was decrying the imminent loss of wild tigers. Today, our Tigers Forever protocol has made Panthera the standard bearer for best practices in tiger conservation globally.

These gains, as well as the data needed to clarify such success, are hard won indeed. They require countless meetings to ensure the commitment of local, state, and national governments; the deployment of expert staff to ensure that wildlife rangers are properly trained and equipped to safely battle illegal hunting activities; the establishment of trusted partnerships with local and international NGOs; dedicated researchers who monitor and measure wild cat and prey numbers; and the engagement and active participation of local communities. With these things in place, we can save cats and the large wild landscapes and corridors they need to survive for future generations. Our success speaks for itself.

2016 was a terrific year. At numerous project sites in Africa, Asia, and Latin America, we worked with local ranchers and farmers to protect their livestock and eliminate the retaliatory killing of lions, snow leopards, and jaguars. In South Africa, our Furs for Life program reached an important milestone as Shembe Church members wore almost as many faux fur capes at ceremonial gatherings as the real leopard skin capes that were the norm when the program started in 2013—a remarkable shift in just three years. In Latin America, we continued to strengthen and secure the Jaguar Corridor, working in 10 countries over two continents—the largest and most ambitious big cat conservation program in the world.

Conservation is a war with many battles. Sustained success and outcomes must often be measured over years, decades, or longer. However, in a constantly changing world, Panthera prides itself on being nimble enough to seize opportunities and accelerate change for big cats whenever and wherever we can. Of course, all of Panthera's success is based not only on having the best expertise in the field, but also through maintaining a trajectory of financial growth and sustainability. As with any organization, there have been setbacks and adjustments, but we have never wavered from our objective to grow our field programs and to leverage new funds.

As always, Panthera is ready to pounce. Our proven results with key cat populations continue to refine and expand the playbook of "best practices" as we spread into new landscapes, define or create new movement corridors, and work at saving and increasing big cat numbers throughout the world. With your generous support, we will continue to broaden our reach and impact in 2017 and beyond.

**ALAN RABINOWITZ, Ph.D.**
*CEO*

# Program Highlights

Tiger security training in Tambling Wildlife Nature Conservation in Indonesia

# Laying Down the Law

One of the largest black markets in the world, the illegal wildlife trade is estimated to generate as much as $20 billion a year—and poaching of big cats and their prey threatens the future of every big cat species. Panthera is a leader of the global anti-poaching movement.

Our world-class site security and law enforcement program—which combines rigorous science with intensive training of local patrols, state-of-the-art surveillance and communications technology, and intelligence gathering and analysis—has produced measurable results in key sites across tiger range in Asia. In partnership with local NGOs, government, and law enforcement, we are stopping poachers before they kill and bringing wildlife criminals to justice.

Another significant threat to big cats is the illegal hunting of their prey. Panthera and our partners collaborate to discover the driving forces behind illegal hunting and disrupt criminal activity, as well as to develop strategies to better police and reduce the threat over the long term.

# A Beacon of Hope for Tigers

**JOHN GOODRICH, Ph.D.**
*Senior Director, Tiger Program*

The results of a 2016 camera trap survey in Nepal showed why the Tigers Forever model—that tigers thrive if we give them cover, prey, and protection from people—works so well.

Indeed, we were thrilled to learn that the number of tigers in the Parsa Wildlife Reserve more than doubled since our camera surveying began. But it was a long road: When I first visited in 2014, I was perplexed by how few of these cats lived there.

Parsa shares a long border with Chitwan National Park, one of the most famous and well-protected tiger reserves in the world. Tigers have flourished there for decades, and there is nothing keeping them from moving between the two areas. So why were there only seven left in Parsa?

I traveled there with colleagues from Panthera and the Zoological Society of London (ZSL), who would later become our partner in Nepal. Prey were scarce, and we had to work hard to find evidence of tigers: a pugmark along a river and the occasional scent mark.

There were plenty of signs of illegal human entry into the reserve, though. The only plausible explanation was that poaching of tigers and prey was depressing tiger numbers in Parsa.

**Above:** Rob Pickles, head of monitoring for Tigers Forever, instructs forest rangers in camera trap technology.

**Opposite:** Tigers captured on camera traps in Parsa Wildlife Reserve in Nepal

We met with the director and other Department of National Parks and Wildlife Conservation (DNPWC) personnel, the colonel in charge of the military anti-poaching patrols for Parsa, and the National Trust for Nature Conservation (NTNC). We learned there were plans to increase the protection force from 200 to 600 soldiers and help a village voluntarily relocate from the northwest corner of the reserve. And there were plans to extend Parsa to the east.

The situation was ripe for recovery, and we were eager to help—and did so over the coming years in collaboration with our partners by providing PantheraCams for monitoring tigers, along with data analysis workshops and funding to run the surveys. We also provided workshops on site security and PoacherCams for detecting illegal incursions.

In the next three years, the protection force grew, the size of the park increased by over 100 square kilometers, and the village relocated—all on schedule and despite the massive earthquake in 2015. Such rapid progress is almost unheard of in tiger conservation and speaks to the Nepalese government's commitment to conservation.

We eagerly awaited the results of camera trapping surveys each year and were not disappointed. With increased protection, tigers poured in from Chitwan, with numbers increasing by 50% in the first year. Moreover, the tigers quickly began reproducing, with new litters detected in each survey.

Individual tigers were detected in the same areas year after year, suggesting high survival rates—the result of strong protection efforts, and solid proof that the Tigers Forever model works.

**2x** **Tiger numbers have more than doubled in Parsa, Nepal, since 2014.**

## Tigers Forever at 10

**Tigers Forever was founded in 2006 by Michael Cline and Alan Rabinowitz with the goal of reversing global tiger declines by recovering key populations and landscapes in partnership with local governments and NGOs. We are active in 17 sites with over 20 NGO and government partners, and have leveraged over $11 million dollars for these sites. Our sites include nine of the 10 tiger conservation landscapes, containing about 2,260 tigers, or 70% of the world's population. Five sites show evidence of increasing tiger populations, with two populations doubling in the past six years—proving that the program works.**

**Panthera's Tigers Forever Protocol—which uses rigorous science to develop highly efficient and effective approaches to site selection, security and law enforcement, and other conservation interventions to address critical threats—has become widely accepted across tiger range as the standard for tiger conservation. The Protocol is now embedded within many of the largest and most important tiger landscapes.**

**As Tigers Forever begins its second decade, we are continuing to evolve the program based on lessons learned. We are zeroing in on more "focal sites" with high recovery potential, while exporting lessons learned to our 11 other sites, and further scaling the impact of that work cost-effectively by broadly disseminating our findings and best practices. Meanwhile, we are also beginning to adapt the Tigers Forever model beyond tiger range, with expansion into critical landscapes in Africa already underway.**


# Training Dogs to Save Cats

**Above:** A detection dog at work at a Tajikistan/Kyrgyzstan border post

**Opposite (top to bottom):**
A detection dog and his trainer at work at the Tajikistan/Kyrgyzstan border

Panthera site security adviser Craig Fullstone participates in an Aaranyak law enforcement training exercise in India's Manas National Park.

Dogs are becoming some of the greatest allies for big cats in Asia. Snow leopards and two of their prey species—argali and ibex—are among the most common species in illegal wildlife trade in Kyrgyzstan and the whole Central Asia region. But this trade goes largely undetected because local border and customs outposts are not equipped to find and identify wildlife parts concealed or—in the case of argali and ibex—passed off as legally hunted.

In 2016, we partnered with Working Dogs for Conservation and the Kyrgyz Customs Service to train and deploy the country's first wildlife detection dogs. After weeks of training the Belgian Malinois and German Shepherd mixes and building kennels, we deployed them at the border between Tajikistan and Kyrgyzstan.

The dogs immediately got to work identifying the skin, bones, organs, and other parts of illegally hunted animals. In a first for Central Asia, their detective work led to the seizure of several argali and ibex horns and skins, trophies illegally hunted in Tajikistan. And our informant network tells us the dogs' presence has completely halted the local cross-border transport of argali and ibex meat.

In India's Manas National Park, Panthera and partner Aaranyak used detection dogs to track tiger poachers and take down

fleeing or aggressive suspects. The dogs, two Belgian Malinois, can track poachers over varied terrain and large distances—the male, Jorba, tracked a rhino poacher from a carcass in a park to the poacher's home 15 kilometers away. They also sniff out poachers' weapons and hideout locations. Other organizations in India have shown interest in this useful law enforcement tool, and Aaranyak plans to breed the first pair of dogs to grow the Manas canine team.

**Detection dogs have stopped the illegal transport of snow leopard prey at the Kyrgyzstan/Tajikistan border.**

## NEXT STEPS

Panthera and our partners will cross-train the existing detection dogs in Central Asia—plus two more—to sniff out saker falcons and saiga antelopes. We will deploy units at the border between Kyrgyzstan and China, at the Bishkek Manas International Airport, and in Bishkek for stings in the Chui and Issyk-Kul regions.

# **Ensnaring** Bushmeat Poachers

Kafue National Park in Zambia once abounded with large carnivores, but rampant poaching of their prey for bushmeat and direct poaching of these animals has drastically depleted their populations. Today, Kafue hosts about 80 cheetahs, 500 lions, and 120 African wild dogs—only 25% of their potential in the park. Law enforcement within the park is at a fraction of what is required to secure a landscape the size of Kafue, making it difficult to stem poaching and the continued losses of large carnivores and their prey.

If bushmeat hunting were eliminated, each species could more than double in the park and neighboring areas.

In 2016, to address the relentless assault on Kafue's wildlife, Panthera supported Game Rangers International to deploy law enforcement patrols that apprehended 94 offenders, recovered 81 snares, and recovered 2,331 kilograms of bushmeat.

Panthera also undertook an in-depth study of the Greater Kafue Ecosystem's bushmeat trade. Using interviews with poachers, the authors revealed the extent of the bushmeat trade, identified weak points in the supply and demand chains, and, most importantly, identified opportunities for change.

**Above:** Authorities seize poached bushmeat in Gabon.

**Opposite (top to bottom):** Law enforcement rangers learn to use SMART in Zambia's Kafue National Park.

A poacher is caught on camera in Benin.

| 94 | 81 | 2,331 |
|---|---|---|
| Poachers Arrested | Snares Removed | Kilograms of Bushmeat Seized |

### NEXT STEPS

Panthera is leading a shift in the park's law enforcement strategy from a reactive to a proactive approach. In partnership with Zambia's Department of National Parks and Wildlife, Panthera will ramp up the number of patrols to secure safe zones for carnivores across Kafue National Park and implement a rigorous monitoring system to lead the efficient and effective deployment of anti-poaching units.

## Getting SMART

Across eight sites in southern Africa, Panthera has been leading the implementation of the conservation community's most trusted law enforcement monitoring platform, SMART. SMART puts powerful tools in the hands of frontline wildlife managers by equipping them to make hard decisions about where to deploy their scarce resources for greatest effect. With Panthera's support, SMART is being used to reveal patterns in wildlife crime that will significantly improve the proactive and effective deployment of patrols to secure protected areas from poachers.

Local residents of the Luengue-Luiana National Park in Angola

# Cultivating Coexistence

**When people and wild cats share landscapes, some conflict is inevitable. In many cases, it stems from wild cats preying on livestock—often an important source of income for local ranchers—prompting people to kill wild cats in retaliation or to prevent further losses. Panthera is committed to working with local communities to mitigate human-cat conflict with conservation actions that support and respect the lives and cultures of people who live among large carnivores.**

# Letting Lions Live

In northern Namibia's Nkasa Rupara National Park, lions killed 135 livestock in 2013, so the community killed lions—an entire pride of 15 individuals, plus several others.

In response, Panthera teamed up with the Kwando Carnivore Project to build lion-proof corrals—71 over the past three years, housing over 6,000 head of cattle in conflict hotspots—and saw dramatic results. The number of livestock lost decreased radically every year, along with the number of retaliatory killings. And, in 2016, no lions were killed by the community in retaliation for cattle depredation.

The project also developed something new and innovative for the area: nine mobile corrals, temporary housing that keeps cattle from wandering into national parks at night and helps farmers improve their crop yields and food security. Moving the corrals every two weeks helps nutrify soil for the cropping season and ensure crops can be grown in the same field every year.

In 2016, the conflict mitigation efforts by Panthera and its partners helped prevent the deaths of hundreds of cattle and dozens of lions in communities adjacent to Nkasa Rupara, as well as Ruaha National Park in Tanzania and Hwange National Park in Zimbabwe.

**Above:** Panthera's team builds predator-proof corrals to protect livestock in the Zambezi Region, Namibia.

**Opposite (top to bottom):**
Lion guardian David Nchinda gives Dr. Paul Funston a treasured gift of hand-carved teak "clappers" used to chase lions away from villages and cattle-grazing areas in Zimbabwe's Hwange National Park.

These Zimbabwean cattle are housed in a mobile boma to keep them safe from lions at night. During the day, they are released to graze.


Panthera's various partner-led projects have all had great success in reducing conflict levels and keeping cattle safe at night in lion-proof corrals, but there's still work to do to reduce daytime grazing attacks. The urgent next step for all projects is improving livestock husbandry and guardianship practices among local ranchers—a process that can take time.

**In 2016, no lions were killed in retaliation in Namibia's Nkasa Rupara National Park.**

## NEXT STEPS

**Through partners, Panthera is currently expanding its lion conflict mitigation projects into beautiful, high-visibility tourism areas, including the Ngorongoro Crater in Tanzania and the Chobe Floodplains of the Zambezi River in Namibia. By protecting lion populations, we can realize their value as tourism draws and landscape guardians, conveying both economic and ecological benefits to the local people.**

# Enriching Livelihoods to Save Jaguar Lives

Key to Columbia's agricultural economy, thousands of cattle ranches now sprawl through what was once pristine wilderness and prime jaguar territory. In these human-dominated landscapes, resourceful jaguars, robbed of their natural habitat and prey, will make an easy meal of a cow—and a sworn enemy of a rancher.

Sometimes, loss of livestock is blamed on jaguars when it is due to other factors, such as disease, drought, and other predators. Although killing jaguars is illegal in Colombia, the perception of jaguars as inveterate livestock killers sometimes causes ranchers to shoot any jaguar they encounter, either in retaliation or to prevent future attacks on cattle.

Enter the Grupo de Respuesta al Conflicto con Felinos (GRECO), Panthera's cattle conflict response team. These wildlife officers—trained by Panthera and working for regional environmental agencies—respond to and investigate complaints from ranchers who have lost livestock, and work proactively with ranchers to prevent further livestock losses.

The program, piloted in 2015, expanded in 2016 to include 32 model ranches, where GRECO team members work with ranchers to develop and implement practical, cost-effective techniques that can mitigate jaguar-cattle conflict. These can

**Above:** A jaguar is caught on a camera trap carrying a chicken it stole from a nearby farm in Costa Rica.

**Opposite:** A young man helps with cattle and buffalo chores in the Jofre Velho Ranch in Brazil.

include such alterations as building secure fencing to keep jaguars and pumas out, using bulls from specialized breeds of cattle to ward off the predators, or installing motion-detection lights in corrals. In 2016, Panthera trained more than 400 participants in a dozen workshops, and published a human-wildlife conflict guide to educate ranchers and raise awareness in ranching communities.

Response teams now encompass more than 180 municipalities and over 74,000 square kilometers of natural park landscapes. The preventive measures put in place on our 32 model ranches in 2016 eliminated jaguar attacks on cattle.

Panthera is leading the way in understanding and preventing cattle-cat conflict in Latin America—from maintaining Panthera's own model ranch in Brazil's Pantanal, to establishing new demonstration ranches in Panama, to monitoring tiny family farms in Belize. With proven solutions that translate readily from country to country, and innovative approaches that are pushing the boundaries of traditional practices, Panthera is successfully mitigating one of the greatest threats to big cats worldwide.

**On our 32 model ranches, no cattle were killed by big cats.**

## NEXT STEPS

**Panthera will create five new model ranches in Colombia each year and expand the program into Bolivia, where we previously hosted workshops for ranchers interested in keeping their cattle safe. Also coming in 2017: the defining text on cattle conflict in Latin America and the southern United States—compiled by Panthera and written by over 100 professionals at 77 institutions representing 18 countries.**

Panthera's Leopard Program Director Guy Balme and Furs for Life advisor Tristan Dickerson discuss how to improve the design of amambathas with a Shembe elder.

# Changing Hearts and Minds

**The leopard is known for its grace, mystery, and beauty, with a spotted coat that has made it one of the world's most persecuted big cats. In southern Africa, as many as 2,500 leopards are killed each year for their skins. With fewer than 5,000 leopards remaining in South Africa, this illegal killing severely damages their chances for survival. In 2016, Panthera doubled down in the fight against this threat by expanding an innovative program that sought to reduce demand for leopard skins while respecting a cultural norm.**


PANTHERA

# **Faux Fur Is In,** and Leopards Win

Faux fur has saved thousands of leopard lives in South Africa, where members of the 1-million-strong religious group the Nazareth Baptist (Shembe) Church wear leopard skin capes, or amambatha, in their ceremonial gatherings.

In 2013, Panthera initiated the Furs for Life Leopard Project—a unique initiative to create high-quality, lifelike, and affordable faux fur capes as a substitute for the real leopard skins prized by the Shembe. Since then, with funding from Peace Parks Foundation and Cartier, Panthera has donated over 15,000 faux fur capes and begun educating the community about conservation, going straight to the source to evolve a widespread and culturally entrenched practice. Thanks to the support of Shembe leaders, the faux skins are gaining increased acceptance as viable alternatives.

In 2016, we distributed 3,743 amambatha made by local tailors. And, for the first time, almost as many fake skins were observed at Shembe gatherings as real ones—an encouraging sign. Indeed, our research indicates that use of real skins has already decreased by 50%.

We also stepped up our program educating youth on the cultural role of leopards and the threats they face.

**Above:** Members of the Nazareth Baptist (Shembe) Church do traditional dances while wearing Panthera's faux fur capes.

**Opposite:** A battle-scarred leopard in Londolozi Game Reserve in South Africa

While declining leopard numbers in many sites continued to challenge Panthera's scientists (see sidebar), our camera trap surveys in 2016 did produce exciting news of increases in leopard density at several sites in KwaZulu-Natal and Limpopo Province, the most widespread and compelling evidence yet of the positive impact Furs for Life can have on leopard populations.

**For the first time, almost as many fake leopard skins were observed at Shembe gatherings as real ones.**

### NEXT STEPS

With continued support from Peace Parks Foundation and Cartier, Panthera plans to distribute another 3,000 capes in 2017 to give the Shembe Church a sustainable revenue source and incentive to grow the Furs for Life program among its members in KwaZulu-Natal and beyond. Furs for Life is also ready to expand to other cultural groups that use leopard skins for ceremonial wear.

## Why Are Leopards Still Dying?

**Despite the success of Furs for Life in South Africa, leopards are still declining. Panthera is using fur forensics to find out why—and how to stop the trend.**

Illegal wildlife traders have revealed that many skins used by the Shembe were not acquired from South Africa. So to determine the origin of these skins—and identify hot spots for leopard poaching—Panthera and its partners have developed a genetic database for leopards in southern Africa using the Shembe samples.

The most comprehensive study of leopard genetics anywhere in the world, scientists have collected over 1,000 genetic samples from 11 countries. Provisional results have shown that most Shembe skins come from Zimbabwe and Mozambique.

While providing authorities with data about where these skins are coming from, Panthera's scientists will work with decision-makers to prioritize law enforcement efforts that put a stop to the poaching of Africa's leopards.

# Teton Cougar Project Caps Off a Successful Run

**DR. HOWARD QUIGLEY, Ph.D.**
*Director, Puma Program*

**Above:** F61 calls her kittens from afar. A bold red fox watches in the background, awaiting the moment he might slip in and grab a free meal from the nearby elk carcass.

**Opposite:** Director of Panthera's Puma Program Howard Quigley and team collar and record data from an anesthetized puma.

As the Teton Cougar Project winds to a close after 17 years, we celebrate the incredible insights it has given us into the lives, ecology, and genetics of local cougars.

During its long and successful run, the TCP brought us evidence of two cougar "adoptions"—a rare event in the wild—and the first-ever footage of a female with kittens in a natal den, providing rare insights into maternal behavior. Over the life of the project, the cougar-hunting quota in Wyoming was reduced by a remarkable 75%. This was largely because of data we collected during the past two decades that proved irrefutably that hunting was steering the population toward extinction.

In 2016, the TCP continued to add value to the research community, publishing notable findings about cougars' social interactions, home range overlaps, and foraging differences, among other topics. And, we saw the penultimate radio collar drop from the neck of one of more than 130 study animals we've monitored over the life of the TCP. One individual, female F72, still wears a collar, wandering private properties adjacent to Grand Teton National Park. We'll remove the collar in the coming year.

Importantly, we've done our work at a time when the floral

and faunal communities have been adjusting to two of the most historic carnivore conservation odysseys of modern times: the re-introduction of wolves and the recovery of grizzly bears. Our data not only now become a window on the past—when these three large carnivores shared the Yellowstone landscape—but also a window to the future, as we try to preserve and live with one of the most fully intact carnivore ecosystems in the United States, the Yellowstone Ecosystem.

**130** **The Teton Cougar Project has monitored more than 130 study animals.**

### NEXT STEPS

Panthera's Puma Program will start fieldwork in the San Francisco Bay Area, working with the East Bay Regional Parks District to examine the interface between carnivores and the urban environment. In Southern Chile, we'll be teaching local ranchers how to use dogs to prevent cougar attacks on livestock, and working with Torres del Paine National Park to safely develop cougar-focused ecotourism.

## A Generation of Cougar Biologists

To the people who have supported the Teton Cougar Project—donors, cooperators, and the public—from Jackson Hole, throughout Wyoming, and around the world, we thank you.

And to the ones who have soaked through their rainboots, been stranded in freezing temperatures when their snowmobiles broke down, hiked miles to killsites, and spent long days inputting data in the office—we salute you.

At last count, nearly 80 people have assisted on the TCP over its 17-year life. This includes 15 paid technicians, more than 26 volunteers, eight students, and seven Project Leaders, culminating with the very capable and ongoing scientific oversight and management of Dr. Mark Elbroch.

These people have been the lifeblood of the TCP. Their contributions to the work have been invaluable, from filling out forms to filling up gas tanks. They braved often inhospitable conditions and odd hours for the love of the work, because it surely wasn't for the money.

If cougars could speak, there would be a deafening caterwaul echoing down the Gros Ventre, Buffalo, and Snake River Valleys of Jackson Hole saying, "Thank you!"

**Opposite Thumbnails:** Wildlife caught on Panthera's camera traps in Angola

**Opposite:** A rare Angolan male lion pads gently past a Panthera camera trap.

# Innovation Spotlight

## Recruiting Citizens to the Conservation Fight

Thousands of citizen scientists joined Panthera's research community in 2016, thanks to the introduction of an easy, compelling—some would say addictive—way to participate in conservation science from the comfort of their living rooms. By identifying the animals in camera trap photos, these dedicated, curious supporters enhanced our professionals' ability to protect big cats and their landscapes.

It all started in 2013, when Panthera began a large-scale camera trap study of leopards in South Africa—a species that has been largely overlooked by conservationists because of its vast distribution. Our cameras revealed an alarming decline in most leopard populations.

We needed to understand more about what was threatening leopards in order to protect them—so we expanded our monitoring efforts and increased the number of camera-trapping surveys in the region. The motion-activated camera traps generated millions of photographs of wildlife, presenting a monumental task for our leopard researchers.

Seeking help from volunteers to identify the animals in our images, we partnered with Zooniverse, an online platform for people-powered research, and launched Camera CATalogue in August 2016.

That year, nearly 8,000 people joined this remote, amateur research team, cataloging and commenting daily on thousands of images of wildlife, ranging from big cats to rhinos to aardwolves in South Africa, Angola, Gabon, and Namibia. In just the first five months of the program, volunteers helped us classify over 2.5 million camera trap images.

With information about where and how often individual animals are photographed, we can generate reliable estimates of wild cat populations and trends. And by conducting camera trap surveys at regular intervals, we can track populations over time and work with local authorities to implement lifesaving conservation actions.

**Our citizen scientists are identifying around 7,000 photos per day on Camera CATalogue.**





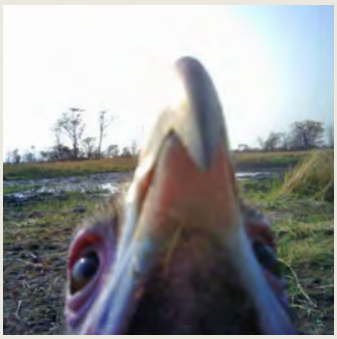












## What Happened to Angola's 1,000 Lions?

Camera CATalogue volunteers studying camera trap images from our first-of-its-kind survey in Angola were treated to a rich parade of wildlife—leopards, elephants, zebras, and more. It was a surprising but hopeful sign in the war-torn country. But where were all the lions? With help from our citizen scientists, Panthera uncovered a devastating finding: Where lion numbers reached 1,000 just 12 years ago, our study revealed that as few as 10 now remain. Using this research, we are exploring ways to bring lions back to benefit the landscape and the lives of people sharing it with them.

# The Science of Saving Cats

**LUKE HUNTER, Ph.D.**
*President and Chief Conservation Officer*

**Above:** A young lion cub in the tri-national W-Arli-Pendjari (WAP) complex in Benin, Burkina Faso, and Niger

**Opposite:** Panthera President Dr. Luke Hunter digs his car out of the mud in Senegal's Niokolo-Koba National Park.

Panthera's efforts to recover lions in Senegal's Niokolo-Koba National Park provide the perfect bookends to our first decade. In 2006, the year Panthera was founded, we joined a group of lion biologists, conservationists, and park managers to take stock of the lion's status across West Africa, the most severely imperiled corner of the species' range. The outcome of that summit was sobering, but hopeful; lion range had declined dramatically, but 850-1,100 of the great cats were estimated to still survive in 21 protected areas across the region.

But there were questions about the numbers. Some reports were old and many were anecdotal—not the reliable "hard data" needed for science-based conservation planning. How can we save lions if we're not certain they even persist in a landscape and, critically, if we don't understand the threats to lions in that landscape? If lions are there, we need detailed intelligence on the factors that will decide whether they can be saved—or not.

So, we collected new data. In a monumental effort led by Panthera's Dr. Philipp Henschel, we surveyed and collated recent sightings from all 21 sites where lions were supposed to occur. The results were shocking. Only four West African protected areas still held lions. Once found across almost 4.5 million square kilometers, they hung on in 1% of that, less than 50,000 square kilometers. Replacing the 2006 guestimate, the new data revealed that fewer than 250 adult West African lions were left on earth.

We sounded the alarm, publishing the results in a prominent

peer-reviewed scientific paper; our findings were then amplified by media around the globe. Many university-based scientists might have moved onto the next study or paper at that point. But Panthera's measure of success is more cats, not more publications. Our fight had just begun.

Step one was to formally designate the lion in West Africa as Critically Endangered. Presented with new, ironclad data, the International Union for Conservation of Nature (IUCN), keepers of the Red List of Endangered Species, quickly agreed. Having the lion's perilous state recognized at the highest level was a win—but still, only on paper. All the science, media hits, and even political support count for little unless we convert them to action on the ground.

By design, Panthera's surveys don't only count cats; they assess the prevalent threats at each site. We now know very well what will save the lion in West Africa: ending pervasive and intense illegal poaching for big cats and their prey. Step two is the sharp tip of the conservation spear: attacking the threats.

Which brings me full circle, to Niokolo-Koba National Park. In 2016, Panthera joined forces with Senegal's Direction des Parcs Nationaux (DPN) to resurrect Niokolo-Koba to its former glory. Central to that effort, Panthera will be assisting the DPN with training and deploying anti-poaching patrols in the park—part of a concerted strategy to replicate our proven methods for saving tigers with other cat species suffering from heavy poaching pressure.

Our anti-poaching footprint expanded further in 2016, to another West African lion stronghold, the tri-national W-Arli-Pendjari (WAP) complex in Benin, Burkina Faso, and Niger. Niokolo and WAP together account for over 90% of the West African lion population and both have the potential for hundreds more, if they are well protected.

Panthera's journey to Niokolo started with a scientific question—how many lions remained? We will continue to ask this question and publish the data as the crucial first step in providing answers to the formidable challenges of saving wild cats. In 2016, Panthera scientists contributed to 49 scientific publications (see pages 42-43 for a full listing); that's more papers on wild cats and how to conserve them than any other organization.

As we celebrate our 10th anniversary, Panthera's scientific credibility is internationally renowned, but if we are satisfied with only that, we will fail. For Panthera, science is just the beginning. In Niokolo, counting lions was the beginning. Victory comes when the current, relict population of 20-25 cats numbers 10 times as many. That kind of recovery, not only of lions, but also of entire ecosystems and the many thousands of species they host, is Panthera's endgame.

# **Artistic Allies in** Cat Conservation

Hermès, the esteemed Parisian house, launched its "Fierce and Fragile: Big Cats in the Art of Robert Dallet" exhibit in January 2016, honoring the work of the late wildlife artist Robert Dallet and bringing international attention to Panthera and our conservation mission.

The traveling exhibit—which featured 75 of Dallet's remarkable drawings and sketches of wild cats—debuted at the Bruce Museum in Greenwich, Connecticut, and toured the world throughout 2016, visiting Milan, Munich, Hong Kong, and Taiwan, before continuing on to Mumbai, Shanghai, and, finally, Paris. The show drew appreciative crowds and enthusiastic press, resulting in feature stories in the likes of *Vogue*, *Vanity Fair*, *Forbes*, *National Geographic*, and *New York Magazine*.

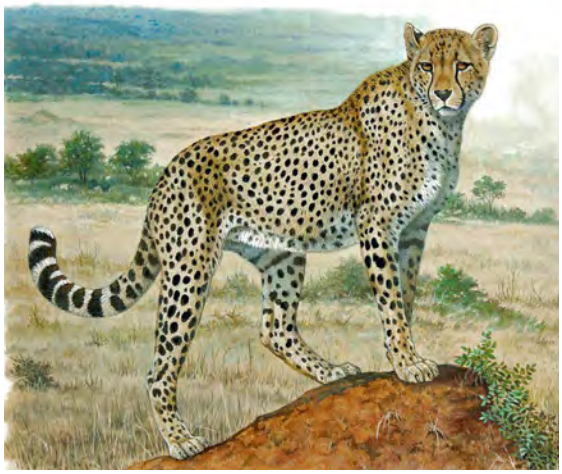
This living legacy to Dallet is part of a unique partnership between Panthera and Hermès. The Robert Dallet Initiative for Wild Cat Conservation, conceived by Hermès Artistic Director Pierre-Alexis Dumas and Panthera Chairman and Founder Thomas Kaplan, aims to advance Panthera's mission—and continues Dallet's lifelong quest to change the trajectory for his beloved subjects by combining art, science, and education.

Through a combination of Hermès' financial contributions and a multifaceted outreach campaign that aligns Panthera with one of

**Above:** Wildlife artist Robert Dallet's paintings of wild cats

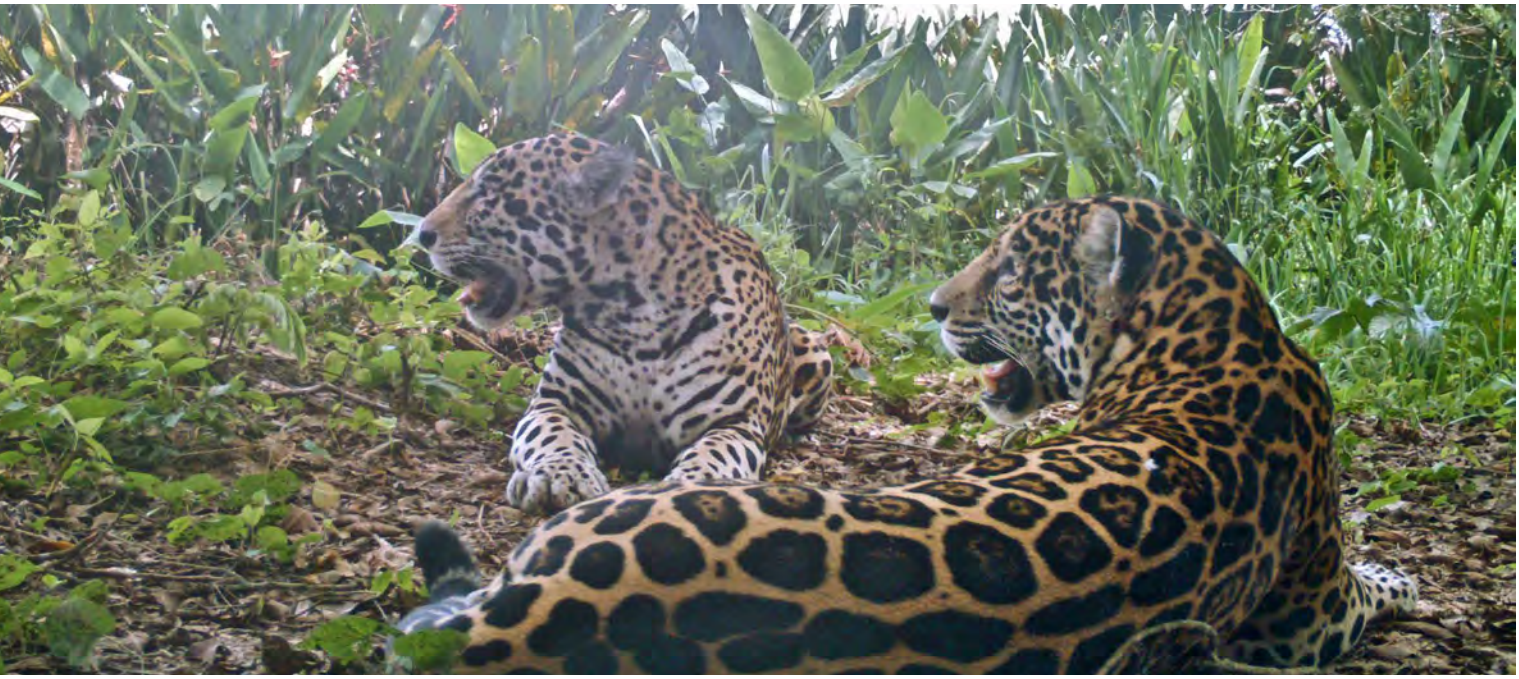
**Opposite (top to bottom):**
Thomas Kaplan, Panthera, and Pierre-Alexis Dumas, Hermès, attend the opening of the "Fierce and Fragile" exhibit in Greenwich, Connecticut.

Guests attend the opening of the "Fierce and Fragile" exhibit.



the world's most recognizable and cherished brands, the Dallet Initiative has already benefitted cheetahs, jaguars, leopards, lions, pumas, snow leopards, and tigers, and will continue to increase the impact of Panthera's programs worldwide.

> **"Panthera's commitment to rigorous science, and their unique understanding of man's complex relationship with big cats, promises hope for these iconic animals."**
>
> **PIERRE-ALEXIS DUMAS**
> *Artistic Director, Hermès*



# Changing the Game

We are pleased to highlight the extraordinary vision of the Robertson Foundation and the Sitka Foundation, whose multi-year commitments in 2016 to Panthera's tiger and jaguar programs, respectively, are the bedrock of our conservation agenda for these species and their landscapes.

**SITKA FOUNDATION**

The Sitka Foundation, founded by Panthera Board Member Ross Beaty and his family, made the largest ever commitment to Panthera's Jaguar Corridor Initiative in 2016. The 10-year, CA$5 million gift will protect jaguars and secure the Jaguar Corridor in eight countries: Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, and Colombia. With this support, Panthera aims to create new protected areas; increase patrolling; reduce depredation of livestock and eliminate retaliatory killings of jaguars on ranches; secure government recognition of jaguar corridors; and ensure development projects in the Corridor are wildlife-friendly.

**ROBERTSON FOUNDATION**

The Robertson Foundation's renewal of support in 2016 has launched our Tigers Forever program into its next phase. Panthera will focus on six critical tiger habitats where the intensive implementation of our cutting-edge site security and law enforcement solutions will help to accelerate recovery of tiger populations and provide key learning, which we will disseminate strategically to scale the program across tiger range.

**A generous grant from the Robertson Foundation will match new and increased giving to our Tigers Forever program up to $1 million over the next two years.**

Jaguars in the wetlands of Santander, Colombia

A camera trap photo of two Indochinese tigers in Thailand's Khoa Yai-Dong Phayayen Forest Complex

# 2016 Financial Summary

Panthera, through its worldwide conservation efforts, continued its pledge to maximize the impact of our donors' generous investments. Though revenue decreased by 11% from FY2015 to FY2016, program expenses decreased by only 7%. Infrastructure enhancements implemented in the previous year contributed to greater efficiencies and enabled us to expand three of the seven primary species programs, despite the lower revenue. This resulted in an improvement in the percentage of program spending to total spending from 73% to 78%.

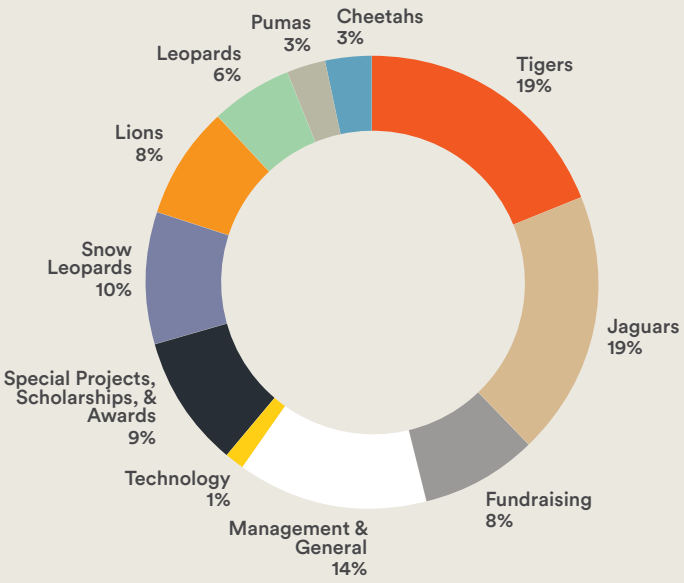
Certain categories of reporting functional expenses were changed for 2016. As such, amounts as reported in the 2015 audited financial statements were reclassified into their respective 2016 categories. These reclassifications had no impact on functional expenses in total.

Copies of Panthera's complete audited financial statements can be downloaded from our website at **panthera.org**.

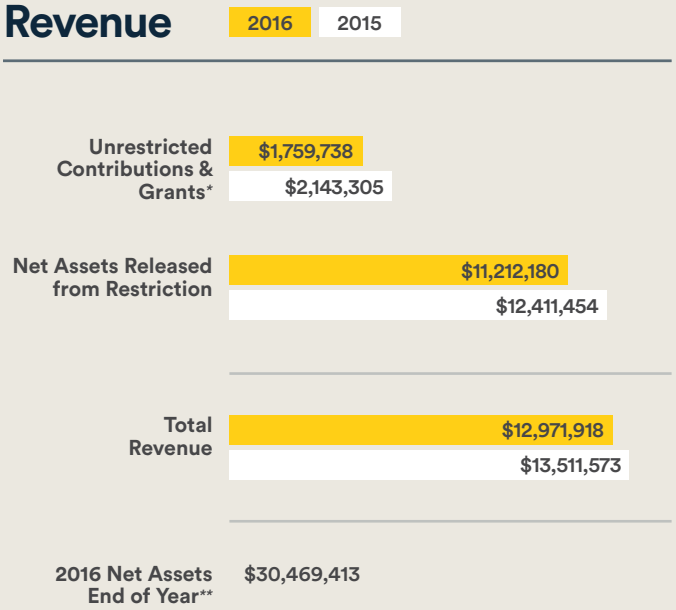
## Total Expenses

| | |
|---|---|
| **2016 Total Expenses** | $12,774,962 |
| **2015 Total Expenses** | $14,651,869 |

## 2016 Expenses




## Revenue




** Total Net Assets consist of $1,837,849 of unrestricted and $28,631,564 of temporarily restricted assets. Assets are deemed restricted until the time or use restriction of the donation is satisfied. $24,673,773 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.*

A tiger inside Bandhavgarh National Park, India

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*Award-winning Actress of Screen and Stage*

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*Maya Lin Studio*

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*President of Fern Mallis LLC*

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*Director of Preventive Cardiology*
*Weill Cornell Medical Center*

**Edith McBean**
*Dedicated Conservationist*

Female lions and cubs in Maasai Mara National Reserve, Kenya

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*Former Executive Secretary and Chairman of the Beneficia Foundation*

**Katherine Mitchell**
*Artist, Nature Enthusiast*

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*CEO, the Electrum Group*
*Advisory Council Chairman, Gravitas*

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*Political Analyst and Television News Anchor, MSNBC*

**Ambassador Mark Wallace**
*Former US Ambassador to the UN, Representative for UN Management and Reform*

**Diana Walters**
*Strategic Advisor in the Natural Resources Industry*

**Daniel Wolf**
*Art Collector, Producer and Conservationist*
*Daniel Wolf Photography*

# Scientific Publications


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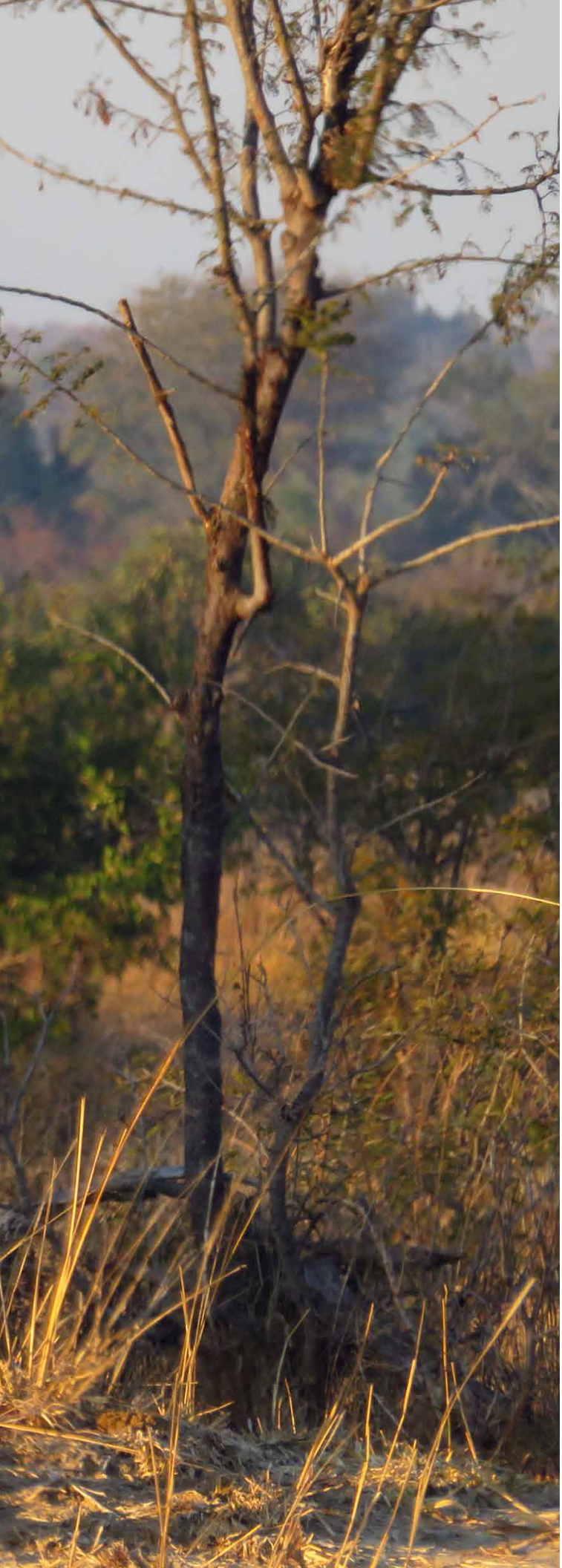

A young female cheetah gazes out over the Greater Kafue Ecosystem.

# **Investing** in Landscapes

**KIM YOUNG-OVERTON, Ph.D.**
*Director, Cheetah Program*

Panthera's mission—to save big cats and their landscapes—is ambitious. Big cats need to range over hundreds and even thousands of square kilometers to find prey, water, refuge, and mates. Securing these huge landscapes in an increasingly developed world is a daunting challenge.

Fortunately, at Panthera, thinking big is what we're all about.

Across the 550,000-square-kilometer Kavango-Zambezi Transfrontier Conservation Area—the world's largest transfrontier conservation area and Africa's largest conservation and development landscape—Panthera spearheaded the KAZA Carnivore Conservation Coalition. This bold initiative is bringing together over 140 government, NGO, conservation, forestry, and development experts and community leaders from five countries committed to combining efforts in priority wildlife areas across this massive landscape.

Within each focal area, every project will build to secure a KAZA-wide large carnivore habitat network. Place-by-place, the Coalition will work across borders and across protected area boundaries to dismantle the main threats to big cats: direct killing for body parts, prey depletion from bushmeat poaching, loss of connectivity among protected areas, and retribution killing from human-wildlife conflict.

Although bold, it's doable. Through the Coalition, we have the right partners, the political will, and a collaborative approach to keeping big cats safe throughout their range.

But the most important ingredient is you. It is thanks to your vision and hope for the future of wild places that we are able to take action on a scale that will truly change the trajectory for big cats and their landscapes. As conservation investors, your return will be as grand as the landscapes themselves—vast wild places complete with magnificent big cats.

A puma stops to investigate a camera trap on a farm in the Central Belize Corridor.


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