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Big Cats

A magazine by IBCA on wildlife conservation

Cheetahs At a Critical Crossroads



P 06

Envisioning a
People-centric
Climate Strategy

P 14

Big Cat
Conservation and
Water Security

P 20

Hope for Amur
Leopard in
Russia

Witness the Wilderness

Diverse habitats of big cats, from African savannas to Asian jungles to South American rainforests, are under threat today. However, in Protected Areas, the big cats find safe havens. Views of some such landscapes





Leopard National
Park, Far East Russia

Photo: Anton Ganzovich



Maasai Mara National
Reserve, Kenya

Photo: Georgina Goodwin



A Race we Cannot Lose



Among the seven big cats, the cheetah is the most vulnerable, with fewer than 7,000 individuals estimated to survive in the wild today. Barely 9% of its historic range remains occupied, while the Asiatic cheetah is now Critically Endangered, with only a small population surviving in Iran.

Unlike other big cats, cheetahs lack the physical strength to defend their kills or even their cubs. They depend on vast, unbroken landscapes, which are rapidly shrinking due to human activities and habitat fragmentation. Many cheetahs now live outside protected areas, increasing conflict with humans.

In our cover story, conservationist Laurie Marker describes cheetah protection as a “race we cannot afford to lose”. Despite challenges, gutsy strategies are being adopted by some countries. In Namibia, farmers are now conservation partners, reducing episodes of conflict with the cheetah on farmlands. The reintroduction of cheetahs to India has been a bold step. It demonstrates commitment towards ecological restoration and biodiversity conservation.

In a special article, Bharat Lal, Secretary General of National Human Rights Commission, India, who has worked in western India on eco-restoration of Asiatic lion habitat and water conservation, explains how protecting big cats can ensure availability of a fundamental resource for life – water. In a water-stressed world, survival of big cat habitats is crucial for human progress.

We take a close look at the conservation efforts for Amur leopard in Far East Russia that involves collaboration between two countries, China and Russia. Collaboration for conservation, in fact, is the key and no other organisation demonstrates this better than the International Big Cat Alliance (IBCA), which is emerging as a bridge across continents, disciplines, and sectors. The forthcoming IBCA Summit will reinforce global partnerships for the conservation of big cats.

This issue also presents a treasure of photographs by several daring wildlife photographers, including two dynamic women, that illustrate the beauty and vulnerability of the big cats. Seeing the visuals you will believe in their timeless beauty and constant vulnerability. 🐾

Malvika Kaul

MALVIKA KAUL

BigCats

Chief Patron

Bharat Lal

Editor

Malvika Kaul, PhD

Research Team

Dibyendu Mandal, PhD

Tamali Mondal, PhD

Designers

Anuradha Sen & Bipro Kumar Sen

Production

Satish Chopra

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Botswana Savannah.

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Farquhar/Cheetah Conservation Fund,

Canada

Printer: Print Screens

A-22 Naraina Industrial Area, Phase-2,

New Delhi-110028

Address for Correspondence

Sankala Foundation, 414-416, B-Block,

4th Floor, Somdutt Chambers – I,

Bhikaji Cama Place, New Delhi-110 066

Email: bigcats@sankala.org

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CONTENTS

08

06 Perspective
Big Cat Conservation can Power Climate Causes

08 Cover Story
Cheetahs at a Critical Crossroads

14 Ideas for the Future
Big Cat Conservation for Water Security & Economic Growth

20 Spotlight
The Miracle of Leopard National Park

Photo: Dearbhaile NI Dhubhghaill/CCF

14





24 Special Report
Reintroducing Tigers
in Kazakhstan: The
Journey has Begun

26 From the Field
A Cheetah's Survival
Guide

32 From the Field
The Quiet Continuum

37 Wild World News



Big Cat Conservation can Power Climate Causes



BY SP YADAV

India has updated the Nationally Determined Contributions (NDCs), the core of the Paris Agreement, for the period 2031–2035. With commitments to reduce emissions intensity by 47%, achieve 60% non-fossil fuel-based power capacity, and create an additional carbon sink of 3.5–4.0 billion tonnes of CO₂ equivalent through forest and tree cover, India has reaffirmed its resolve to pursue sustainable development while contributing meaningfully to global climate action.

Within this transformative framework, big cat conservation emerges as a critical, powerful and strategic contributor to India's climate commitments. Far from being confined to biodiversity protection alone, big cat conservation is deeply interwoven with ecosystem stability, carbon sequestration, climate adaptation, and sustainable livelihoods. India's experience demonstrates that safeguarding apex predators such as tigers, lions, leopards, snow leopards and cheetahs inherently protects the ecosystems they inhabit, thereby advancing multiple dimensions of climate action simultaneously.

Big cats function as keystone species, their ecological role ensures the health and resilience of entire landscapes. Their presence regulates prey populations, maintains vegetation balance, and prevents ecological degradation. In doing so, they help sustain forests, grasslands, and mountainous ecosystems that act as vital carbon sinks. Protecting big cat habitats means protecting vast carbon

reservoirs that absorb greenhouse gases, mitigate climate change, and support long-term ecological stability.

Big cat landscapes – ranging from the dense forests of central India to the fragile Himalayan and Western Ghats landscapes and unique mangrove ecosystems in the Sundarbans (east India) – play a pivotal role in this process. These landscapes not only store carbon but also provide ecosystem services such as water regulation, soil conservation, climate moderation and disaster mitigation. In this sense, big cat conservation becomes a natural extension of India's climate strategy, reinforcing the principle that nature-based solutions are central to achieving long-term sustainability.

Equally important is the role of big cat conservation in strengthening climate adaptation and resilience, which forms a key pillar of India's NDC. Climate change impacts are increasingly visible across India, from erratic rainfall patterns to glacial retreat and extreme weather events impacting the livelihoods of millions.

“A defining feature of India's climate strategy is its emphasis on people-centric development, and big cat conservation exemplifies this approach”

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Healthy ecosystems serve as buffers against these impacts, enhancing the resilience of both natural systems and human communities. Big cat habitats, particularly in the Himalayan region, are critical for maintaining watershed stability and ensuring water security for millions of people downstream. By conserving these landscapes, India is effectively building climate resilience at scale.

Big cat conservation intersects with multiple sectors, including forestry, agriculture, water management, and rural development. Efforts like sustainable land use, reduction in environmental degradation, and enhancement of ecosystem services fuel the vision of Viksit Bharat (developed India) where economic growth and ecological sustainability go hand-in-hand.

A defining feature of India's climate strategy is its emphasis on people-centric development, and big cat conservation exemplifies this approach. Conservation initiatives across the country actively involve local communities, recognising them as key stakeholders in protecting natural resources. Community-based conservation models, eco-tourism initiatives, and livelihood diversification programmes have demonstrated that conservation can generate economic opportunities while preserving ecological integrity. This ensures that climate action is inclusive and equitable, benefiting both people and the environment.

The success of programmes such as Project Tiger, Project Lion, Project Cheetah and Project Snow Leopard that have positioned India as a global leader in big cat conservation, underscores the effectiveness of this integrated approach. India now has the world's largest wild tiger and leopard populations and only wild population of Asiatic lion, reflecting its commitment to conservation and its ability to deliver tangible outcomes.

The International Big Cat Alliance (IBCA) conceived as a platform for collaboration among big cat range countries, deeply embodies the philosophy of 'One Earth, One Family, One Future'. By leveraging India's expertise and experience, the Alliance seeks to promote best practices in habitat management, anti-poaching strategies, and community engagement.

The role of IBCA is particularly significant in the context of global climate action. By positioning big cat conservation as a climate solution, IBCA enables countries to integrate biodiversity conservation into their NDCs and broader climate strategies. It facilitates the exchange of scientific knowledge, technological tools, and policy frameworks, empowering countries to adopt evidence-based approaches to conservation. In doing so, it strengthens global efforts to enhance carbon sinks, protect biodiversity, and build climate resilience. By safeguarding big cats and their habitats, IBCA aims to contribute to climate resilience, water and food security and well-being of communities and creatures reliant on these ecosystems.

Furthermore, IBCA serves as a catalyst for South-South cooperation, fostering collaboration among developing countries that share similar ecological and socio-economic contexts.

Big cat conservation needs collective action through international alliances where countries can share knowledge, resources, and techniques to ensure the conservation of the species and their habitats.

The forthcoming IBCA Summit 2026 can be considered a landmark moment bringing together world leaders, heads of state/government from Big Cat member and observer range countries, and more than 400 global stakeholders, including senior policymakers, conservation experts, corporate leaders, and community representatives, to advance collective action. The Summit will culminate in the adoption of the first-ever Global Declaration on Big Cat Conservation (the Delhi Declaration), promoting a unified framework to strengthen international cooperation and reinforce IBCA's role as a leading global platform for conservation efforts.

Global conservation is shifting from awareness to measurable outcomes. The IBCA Summit 2026 aims to unify fragmented efforts into a coordinated global response driven by science, policy, financing, and community participation. Big cats ignore political boundaries. Their habitats span across nations, linking ecosystems, communities, and economies. Securing their survival



Photo Courtesy Sankala Foundation

'One Earth, One Family, One Future'. Artist Rohit Shukla's Gond (a tribal art form) painting embodies this conservation philosophy

requires connected landscapes, collaborative knowledge sharing, and aligned international policies.

As the global community shifts towards a low-carbon, climate-resilient future, India's conservation strategies offer a vital blueprint for other big cat range nations. Protecting these apex predators is more than a niche policy; it is a fundamental driver of sustainability that stabilises ecosystems, regulates climate, and secures local livelihoods. Through IBCA-led global

partnerships, we aren't just protecting wildlife – we are building a foundation for long-term ecological and economic prosperity. 🐾

Dr SP Yadav is Director General of International Big Cat Alliance and has in last three decades contributed significantly to tiger conservation. He was conferred the International Crystal Compass Award by the Russian Geographical Society for his contribution to Project Tiger in India.



BY LAURIE MARKER

The cheetah has long captured the human imagination – its speed, elegance, and fragility symbolising both the beauty and vulnerability of the natural world. Yet today, the cheetah stands at a critical crossroads. With fewer than 7,000 individuals remaining in the wild – down from over 100,000 a century ago – and occupying less than 9% of its historic range, the species is facing a silent extinction.

From my decades of work in conservation across Africa and beyond, I have witnessed both the alarming decline of cheetahs and the extraordinary resilience of communities and ecosystems working to save them. The future of the cheetah will depend on our ability to confront complex challenges while embracing bold, collaborative opportunities.

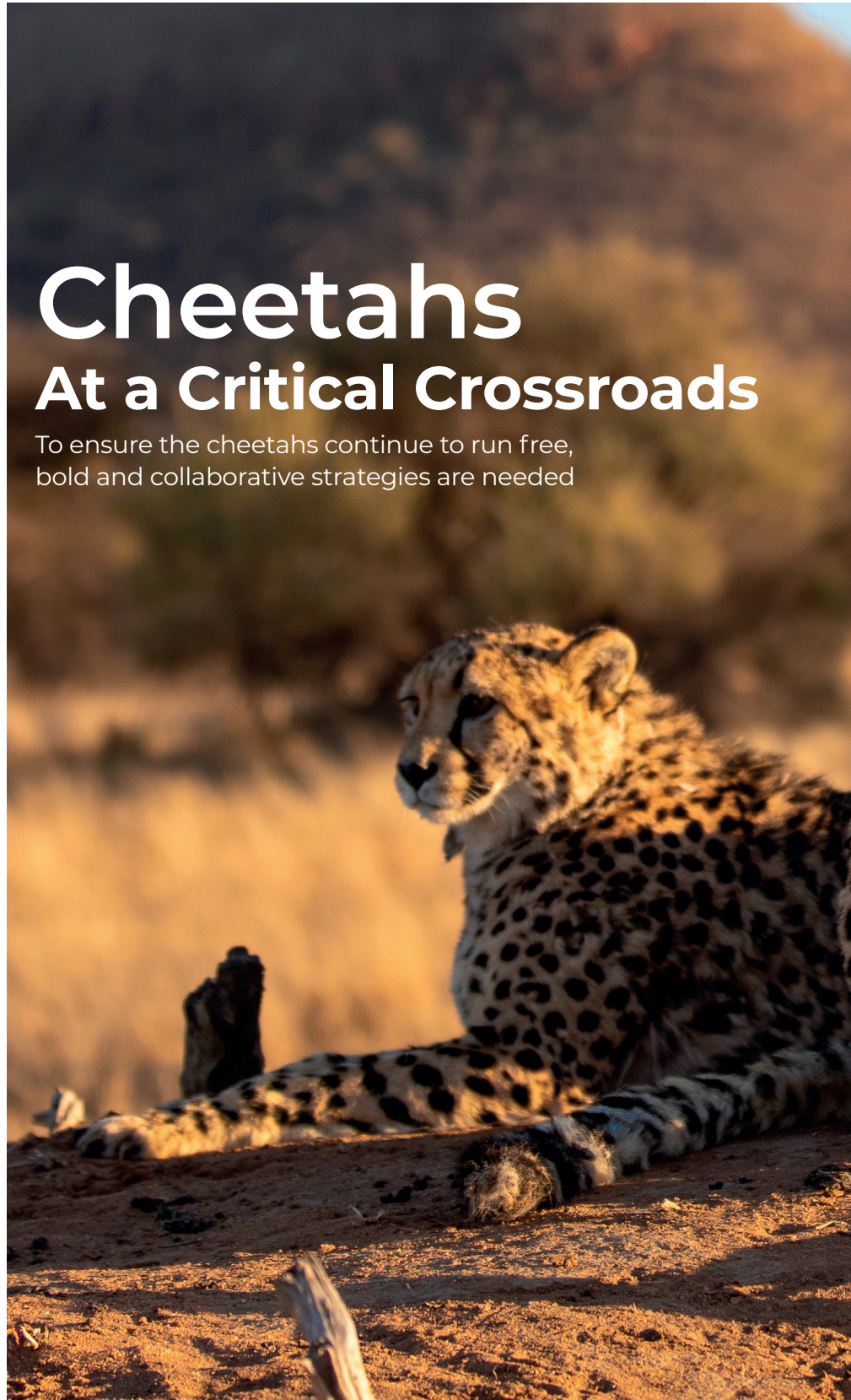
Cheetahs are uniquely vulnerable among large carnivores. Unlike lions or leopards, they lack the physical strength to defend their kills or cubs against competitors. Their survival strategy depends on space – vast landscapes where they can hunt, avoid conflict, and raise their young. However, these landscapes are disappearing.

Human population growth, agricultural expansion, and infrastructure development have fragmented cheetah habitats across Africa and parts of Iran. As land is subdivided and fenced, cheetahs lose access to prey and safe movement corridors. Today, over 75% of the global cheetah population lives outside protected areas, primarily on farmlands. This places them in direct conflict with humans, particularly livestock farmers.

From my early work in Namibia, I

Cheetahs At a Critical Crossroads

To ensure the cheetahs continue to run free, bold and collaborative strategies are needed



A coalition of cheetahs atop a mound scanning for prey at the Etosha National Park, Namibia



Photo: Captain Vishwas Patwardhan



Scientific research is the backbone of conservation. Author (right) in her lab with her team, Namibia

learned that farmers, facing economic pressures, often view the cheetah as a threat rather than an asset. Even minimal livestock losses can have significant impacts on livelihoods, leading to retaliatory killing. At one time, hundreds of cheetahs were being removed annually from farmlands in Namibia alone.

Yet, this conflict is not simply about predators and prey – it is about economics, perception, and coexistence.

Human-wildlife conflict remains the single greatest threat to cheetah survival. Addressing it requires more than conservation science; it demands an understanding of human behaviour, culture, and economic realities.

New Strategies to Reduce Conflict

Over the years, we have developed and implemented a range of strategies to reduce conflict. One of the most successful has been the use of livestock guarding dogs. These dogs, raised with livestock, act as protectors and deterrents, significantly reducing predation. In Namibia, this programme has helped

transform attitudes, turning farmers into conservation partners. For the farmers that use livestock guarding dogs, we have tracked over 80% reduction in livestock loss, protecting cheetahs and other predators.

Education has also been key. Many farmers initially believed cheetahs were responsible for far more livestock losses than they actually were. Through training, data collection, and direct engagement, we were able to demonstrate that improved herd management practices could drastically reduce losses.

But perhaps most importantly, we worked to change the narrative – from one

The future of cheetahs lies in shared landscapes – on farms, in conservancies, and across transboundary ecosystems

of conflict to one of coexistence.

Conservation cannot succeed without the support of local communities. Protected areas alone are not enough. The future of cheetahs lies in shared landscapes – on farms, in conservancies, and across transboundary ecosystems.

Community-based natural resource management (CBNRM) offers a powerful model. By giving communities a stake in conservation – through tourism, sustainable agriculture, and wildlife-based enterprises – we can align economic incentives with ecological goals.

In Namibia, communal conservancies have demonstrated remarkable success. Wildlife populations have rebounded, and communities are benefitting directly from conservation through jobs, income, and improved infrastructure. When people see tangible benefits, they become stewards of the land and its wildlife.

The concept of Ecosystem Stewardship Farmers is another example. By promoting predator-friendly farming practices and offering premium pricing for sustainably produced beef, we can create market-driven incentives for coexistence. This approach recognises that conservation must compete economically with other land uses – and provides a pathway to make it viable.

Reintroduction and Restoration: A Bold New Frontier

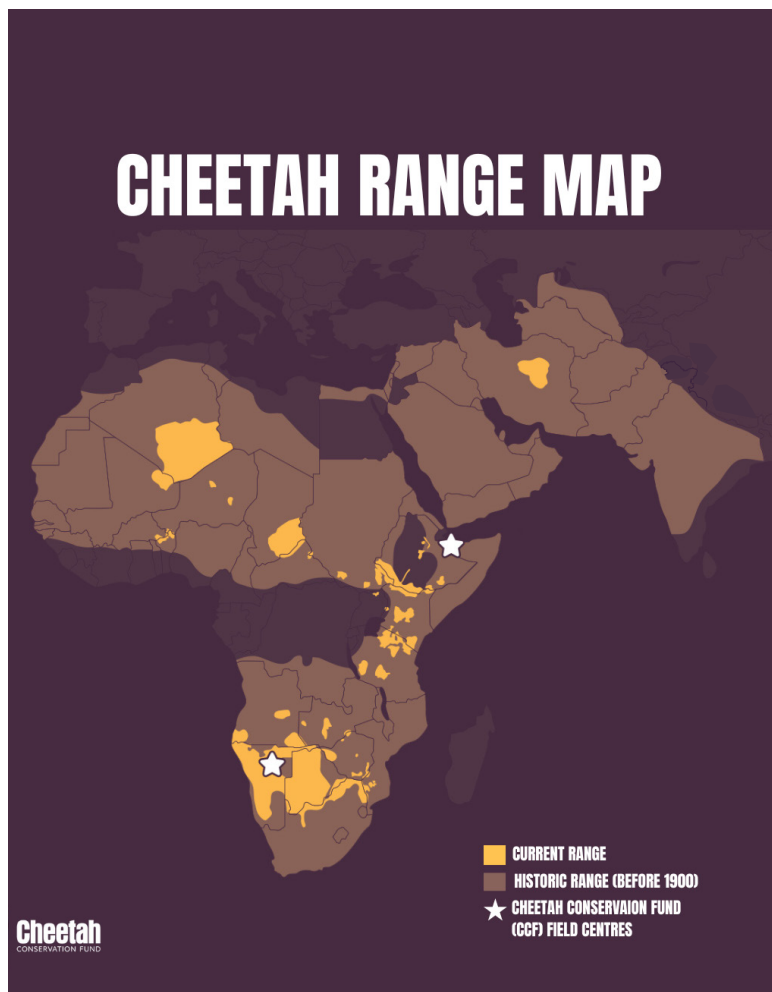
In recent years, we have seen a renewed interest in reintroducing cheetahs to parts of their former range. These efforts represent both an opportunity and a challenge.

Reintroduction is complex. It requires suitable habitat, sufficient prey, strong political support, and long-term funding. It also demands careful planning to ensure that introduced animals can survive and integrate into their new environment.

One of the most ambitious efforts has been the reintroduction of cheetahs to India, where the species had been extinct for over 70 years. This initiative represents



A cheetah in Kuno National Park, India



Source: Cheetah Conservation Fund

Map is not to scale

a bold step towards restoring ecological balance and reconnecting people with their natural heritage.

While it is still early to assess long-term success, the project has already sparked global interest and demonstrated what is possible when nations commit to conservation at the highest levels. It also highlights the importance of science-based decision-making, international collaboration, and adaptive management.

We must approach reintroduction with both optimism and caution – recognising its potential while learning from each step along the way.

Advances in technology are transforming conservation. From satellite tracking and camera traps to genetic analysis and data modelling, we now have tools that were unimaginable just a few decades ago.

These tools allow us to better understand cheetah behaviour, monitor populations, and respond to emerging threats. For example, GPS collars provide insights into movement patterns, helping us identify critical habitats and corridors. Genetic studies inform breeding and translocation strategies, ensuring long-term viability.

At the same time, innovation is not limited to technology. New approaches to conservation finance – such as carbon markets, biodiversity credits, and impact investment – are opening up new funding streams. These mechanisms have the potential to scale conservation efforts and reduce reliance on traditional donor funding.

Climate change is adding a new layer of complexity to cheetah conservation. Changes in temperature and rainfall

patterns are affecting prey availability, water sources, and habitat suitability. In some regions, prolonged droughts are increasing pressure on both wildlife and human communities, exacerbating conflict. In others, shifting ecosystems may alter the distribution of species, creating new challenges for conservation planning.

To address this, we must integrate climate resilience into our strategies. This includes protecting diverse and connected landscapes, supporting adaptive management, and working closely with communities to build resilience.

Collaboration Across Countries

Cheetah conservation is inherently global. The challenges we face – habitat



Genetics, Connectivity, and Long-term Viability

Cheetahs face another, less visible threat: low genetic diversity. This makes them more susceptible to disease and reduces their ability to adapt to environmental changes. Maintaining genetic health requires connectivity – allowing populations to move, interbreed, and maintain resilience. However, habitat fragmentation is isolating populations across Africa. In some regions, cheetahs are now confined to small, disconnected areas, increasing the risk of local extinction.

To address this, we must prioritise landscape-level conservation. This includes establishing wildlife corridors, supporting transboundary conservation areas, and integrating conservation planning into national development strategies. The growing recognition of transboundary conservation is encouraging. Many cheetah populations naturally range across political borders, and their survival depends on cooperation between countries. International frameworks and agreements are increasingly supporting these efforts, but more investment and political will are needed.

loss, climate change, illegal wildlife trade – do not respect borders. Addressing them requires collaboration across countries, sectors, and disciplines.

Organisations, governments, researchers, and communities must work together, sharing knowledge and resources. Initiatives like global summits, international agreements, and partnerships are essential for aligning efforts and amplifying impact.

The role of alliances, such as the International Big Cat Alliance, is particularly important. By bringing together stakeholders from around the world, these platforms can drive

coordinated action, mobilise funding, and raise awareness at a global scale.

We must also engage the next generation. Young people are increasingly passionate about conservation, and their energy and innovation will be critical for the future. Education, mentorship, and capacity-building must be central to our efforts.

Despite the challenges, I remain optimistic about the future of the cheetah. Over the years, I have seen what is possible when science, community, and commitment come together.

We have reduced conflict, restored habitats, and changed perceptions. We

have demonstrated that conservation can deliver real benefits to people and wildlife alike.

But we must act with urgency. The window of opportunity is closing, and the decisions we make today will determine the fate of the cheetah for generations to come. The race to save the cheetah is one we cannot afford to lose. 🐾

Dr Laurie Marker is Founder/Executive Director, Cheetah Conservation Fund, Namibia. She has a special skill of teaching cheetahs to hunt before they are introduced into the wild.



Rest on Rock

A snow leopard cub inside Kibber Wildlife Sanctuary, Spiti Valley, Himachal Pradesh, India. The high-altitude cold desert of Spiti makes a perfect home for this big cat.

PHOTOGRAPH BY DR NIRMALYA CHAKRABORTY

Big Cat Conservation for Water Security & Economic Growth

In a water-stressed world, survival of big cat habitats
is crucial for human progress

Photo: Keshav Varma

Where apex predators
endure, landscapes
breathe and rivers flow.
A tiger in Corbett
Tiger Reserve



BY BHARAT LAL

Imagine a tiger strolling through a rainforest or the dry deciduous forests of Central India, a pride of lions prowling across an African savannah, a jaguar swimming in the wetlands of Pantanal: these are all visions of a pulsating and functioning ecosystem, where apex predators endure and landscapes breathe, rivers flow and communities thrive. Protecting big cats is therefore not simply an act of species conservation; it is a key policy direction to ensure availability of the most fundamental resource for life – water.

Across the world, forests and wild landscapes that sustain big cats are also among the most critical providers of ecosystem services. They regulate climate, buffer disasters, sustain biodiversity, and, most importantly secure water systems. Forests act as natural water towers – capturing rainfall, facilitating groundwater recharge, and maintaining the perennial flow of rivers and streams. Through evapotranspiration, they influence precipitation patterns and stabilise regional climates. Their root systems bind soil, reduce erosion, and prevent destructive flooding, while enhancing infiltration that replenishes aquifers.

The scale of this natural infrastructure is immense. Forests cover roughly one-third of the Earth's land surface – over 4 billion hectares – yet their distribution and health are increasingly under pressure. In India, forests account for about 21.76% of the geographical area, with a significant proportion embedded within tiger reserves and other Protected Areas. These landscapes are not isolated conservation islands; they are hydrological lifelines. Globally, tiger habitats overlap with nine major watersheds spanning nearly 5.8 million km², supporting the water needs of approximately 830 million people.

The link between big cats and water security becomes even more critical in the context of rising global water stress. Asia and Africa host nearly 77% of the global population but hold only 37% of its freshwater, resulting in severe crisis for the Global South's socio-economic development and high economic growth as out of 17 Sustainable Development Goals (SDGs), 11 goals are linked to availability of water. These same regions are also the primary strongholds of the world's remaining tiger and lion populations. In India, home to about 70% of the world's tigers in the wild and the last population of Asiatic lions in Saurashtra, Gujarat, the stakes are high. India ranks among the most water-stressed nations, with national average per capita availability around 1,500 cubic metres annually. In 11 of 20 major river basins, it falls below 1,000 cubic metres – deep into scarcity territory.

Big Cat Reserves & Water Needs

- » India's 58 tiger reserves serve water needs of over 340 million people.
- » In 18 states, more than 19 million hectares of farmland is irrigated by rivers inside big cat habitats.

The role of big cat conservation is both direct and profound as many of India's major rivers and reservoirs depend on forested catchments within Protected Areas. Many of the country's 58 tiger reserves lie in critical headwaters and catchments. Nearly 600 rivers and streams either originate from or flow through India's 58 tiger reserves, collectively supporting the water needs of over 340 million people and irrigating more than 19 million hectares of farmland across 18 states. The Kabini (Kaveri basin), Ramganga (Ganga), and Srisailem (Krishna) reservoirs, all depend on big cat habitats for their catchments. Rain-fed peninsular rivers – Kaveri, Krishna, Godavari, Narmada – originate in forested Western Ghats, Satpura-Vindhya ranges, and other tiger landscapes. The Satkosia Gorge Ramsar site on the Mahanadi River within Satkosia Tiger Reserve exemplifies this living connection.

In recent years, conservation efforts in several tiger reserves of India have contributed to enhancing water availability along 21,036 km of rivers and 33,248 km of streams within the tiger landscapes. In the western Indian state of Rajasthan, an arid landscape, water from Ranthambore Tiger Reserve quenches the thirst of nearly 300 villages. Corbett Tiger Reserve irrigates 600,000 hectares of farmlands and serves 5.9 million people across Uttarakhand and Uttar Pradesh. Periyar Tiger Reserve feeds the Periyar and Pamba rivers, sustaining reservoirs in Kerala and Tamil Nadu. Sundarbans mangroves ecosystems, home of the Bengal tiger, not only support its unique wildlife but also shield coastal communities from cyclones and storm surges; Simlipal's perennial streams support local agriculture and domestic needs of the people of eastern state of Odisha. Each of these examples underscores a simple but powerful truth: when habitats are protected for big cats, water security follows.

Amidst rising global water stress, big cat conservation can be a crucial policy direction to ensure water security across regions and accelerate human progress.

This pattern is not unique to India. In South-East Asia, the Leuser Ecosystem in Indonesia – home to the critically endangered Sumatran tiger – acts as a vast water catchment sustaining agriculture and communities downstream. For jaguars of the Amazon basin, rivers form important migratory corridors that help them move through unsuitable (farms and fields) lands to reach their core habitat. In peninsular Malaysia, forest complexes that shelter big cats provide water to tens of millions of people. Across Africa, lion landscapes underpin key river basins such as the Nile and Zambezi, contributing significantly to water provision, soil fertility, and climate resilience. In Kenya's Chyulu Hills, part of a larger lion landscape, volcanic aquifers supply water to millions, including distant urban centres.

The ecological mechanism behind this is both elegant and essential. As apex predators, big cats regulate herbivore populations, prevent overgrazing and allow vegetation to regenerate. Healthy vegetation, in turn, strengthens watershed integrity – enhancing the land's capacity to absorb, store, and gradually release water and work as a sponge. Remove the predator, and this balance collapses, often triggering cascading effects that degrade forests and destabilise water systems.

A compelling illustration of this interdependence can be found in drought-prone Gujarat's Saurashtra region, the last refuge of the Asiatic lion. Once severely water-stressed due to over-extraction and recurrent droughts, the region underwent extensive water conservation interventions, including rainwater harvesting, aquifer recharge, and transfer of water from the Narmada River. In this region, large-scale eco-restoration and habitat improvement for Asiatic lions was taken up. These efforts not only revitalised water availability for human use but also transformed the ecological landscape. Improved soil moisture boosted vegetation and prey populations, enabling lions to expand their range dramatically – from a confined area in the 1990s to over 35,000 km² today. The population of Asiatic lions increased from 180 in 1974 to 891 in 2025.

In turn, this expanding habitat reinforces ecological stability, creating a virtuous cycle of conservation and water security. Recapturing of older territory by Asiatic lions has brought in water security leading to faster socio-economic development and high economic growth to the region. India has shown an excellent model of moving from 'water scarcity' to 'water security' for widespread economic expansion through conservation of big cats, particularly in semi-arid and arid regions.

At the beginning of this millennium, Mr Narendra Modi as Chief Minister of drought-prone and water-scarce state of Gujarat and as Prime Minister of India, understood the criticality of water conservation. His policy decision to focus on nature and water conservation was one of the contributing factors in phenomenal progress that resulted in an improved quality of life for communities and better opportunities for economic prosperity, first in

Across Africa, lion landscapes underpin key river basins such as the Nile and Zambezi, contributing significantly to water provision, soil fertility, and climate resilience

Recapturing of older territory by Asiatic lions in Gir has brought in water security, leading to faster socio-economic growth for communities

Photo: Anirban Dasgupta



Gujarat and later in the whole country.

Such examples highlight an often-underappreciated reality: big cat conservation attracts political attention, public support, and financial investment at a scale that few other environmental causes can. This provides a unique opportunity to leverage flagship species for broader landscape conservation and eco-restoration, ensuring that entire ecosystems – and the services they provide – are protected.

The formation of International Big Cat Alliance (IBCA) is a laudable initiative that will galvanise coordinated action among range countries for big cat conservation, resulting in water security, especially among water-scarce Asian and African regions. The forthcoming IBCA Summit is expected to give a new direction to big cat conservation, habitat improvement and water security, especially leading to all-round prosperity.

As the world grapples with intensifying water scarcity, climate variability, and ecological degradation, the case for integrating

conservation with water management has never been stronger. Protecting big cats is no longer a niche environmental goal; it is a strategic imperative for sustainable development.

The survival of apex predators signals more than ecological success – it reflects the health of entire landscapes. When tigers roam, forests stand resilient. When lions thrive, grasslands endure. And when these ecosystems flourish, rivers flow cleaner, aquifers recharge more reliably, and communities secure their future. In the end, conserving big cats is about safeguarding the natural systems that sustain life itself. In a water-stressed world, their survival may well determine our own. 🐾

Bharat Lal has worked in Saurashtra, part of western Indian state of Gujarat, on eco-restoration of Asiatic lion habitat and water conservation. He has co-authored four books on wildlife conservation, including *Stripes and Streams: Water Bodies inside Tiger Reserves of India*. Currently, he serves as the Secretary General and CEO of National Human Rights Commission, India.

The Big Leap

PHOTOGRAPH BY CAPTAIN VISHWAS PATWARDHAN



A leopard makes a dash to safety inside Panna Tiger Reserve, India. Leopards are shy and solitary creatures. Panna Tiger Reserve is home to one of the highest leopard populations in the country. Protected areas like Panna play a critical role in leopard conservation.



Big cat in the kingdom of snow. Inside the Land of the Leopard National Park



Photo: Ekaterina Blidchenko

The Miracle of Leopard National Park

Amur leopard was, until recently, one of the most endangered big cats. A recovery plan in Far East Russia has helped several survive



BY RAKOV-NAUMETS IVAN

On a frost-bitten morning in the southwest of Russia's Primorsky Krai, a camera trap blinks awake as a spotted shadow glides across the snow. The animal pauses, lifts her head, and for a fraction of a second looks straight into the lens before vanishing into the forest. It is *Panthera pardus orientalis* – the Far Eastern, or Amur leopard, the world's northernmost leopard subspecies and, until very recently, one of the most endangered big cats on Earth. Each such frame is a small miracle. Twenty years ago, we feared these animals would simply disappear before anyone could save them.

The Amur leopard is a paradox of nature. Although our imagination places leopards in African savannahs and Indian jungles, this subspecies has adapted to endure winters where the mercury plunges below -30°C . Here, at the Pacific coast, its winter coat grows up to seven centimetres. Thick on the belly, its rosettes are wider spaced than those of its southern relatives, and its tail – sometimes reaching 70-80% of the body length – acts as a scarf when the leopard curls up for the night. In the wild, Amur leopards live on an average for 11 years, longer than other subspecies, with the oldest individual recorded in our Land of the Leopard National Park reaching 17 years.

Historically, these cats roamed the entire Korean Peninsula, eastern Liaoning, Jilin and Heilongjiang provinces of China, and the southern Russian Far East. By the mid-20th century their range had shrunk 40-fold. Aggressive poaching, unregulated hunting of the deer they depend on, and rapid economic development of the region brought the subspecies to the very edge of oblivion.

The low point came at the turn of the millennium. A snow-tracking census between 2000 and 2003 found only around 30 adult leopards clinging to a narrow strip of forest in southwest Primorsky Krai, with a handful more across the border

in China. The Korean population had effectively vanished – the last confirmed record in South Korea dates back to 1970. Many experts quietly concluded that the Amur leopard was beyond saving in the wild. Those of us working on the ground refused to accept that verdict. What was needed, we believed, was a fortress for the last wild population – with real patrols, a restored prey base, and real political will behind it.

The turning point

That fortress took shape in 2012, when the Government of the Russian Federation established the Land of the Leopard National Park. Together with the neighbouring Kedrovaya Pad Biosphere Reserve – the oldest protected area in the region with 110 year history – it secured roughly 70% of the leopard's Russian range: nearly 3,700 km² of coniferous-broadleaf forests, rugged ridges and rocky cliffs. A unified ranger service replaced a patchwork of understaffed reserves. Wire snares, which had been maiming leopards for decades, were systematically removed. Wildfires were fought before they could sweep through the oak-and-pine forests the cats depend on. Salt licks and winter feeding grounds helped roe deer, sika deer and wild boar rebuild their numbers.

We also began watching the leopards at a scale never before attempted. A network of more than 500 camera traps – the largest in Russia – now covers every corner of the park. Each adult is identified by its unique rosette pattern, as precise as a human fingerprint, and given an ID number. Many receive names from patrons: actors, scientists, even Pope Francis. In 2016, a tunnel was built beneath the highway that runs through the park, allowing vehicles to pass underground while leopards and ungulates move safely above – Russia's first wildlife crossing of its kind.

Nature responded quickly. The population that was once 35 has more than tripled. Today, at least 120 adult leopards

All photographs are courtesy Land of the Leopard National Park



live on the Russian side of the range, alongside more than 60 Amur tigers (the highest density among protected areas in Russia), Eurasian lynx and the tiny Amur leopard cat – making this the most feline corner of Russia.

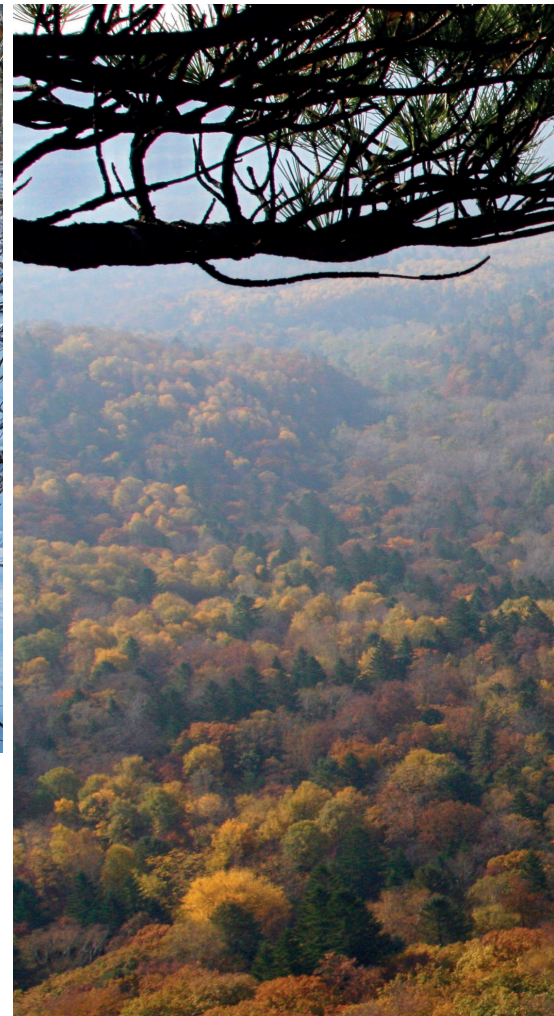
As the core population grew, leopards started pushing outwards. Individuals have been photographed nearly 150 km deep into China, and lone leopards have been confirmed far to the east in the southern Sikhote-Alin. For the first time in decades, the subspecies is reclaiming lost ground.

China's response mirrored our own. A logging ban shifted the border provinces towards ecotourism and ecological services, and a large-scale snare-removal programme helped ungulate populations recover. The Hunchun Tiger and Leopard Nature Reserve was created in 2001 directly along the Russian frontier, followed by the Wangqing and Laoyeling reserves. In 2019, all of them were folded into the pilot Northeast China Tiger and Leopard National Park. In a quarter of a century, the transboundary network of protected areas has grown roughly 12-fold – from 1,532 to more than 18,000 km² – covering about

90% of the current range of the Amur leopard and the Changbaishan population of the Amur tiger.

Preliminary figures are already striking. On the Russian side, leopards have gone from 35 to over 120 individuals, and tigers from 18 to more than 60. In China, the yearly number of registered tigers have grown from 27 to 70 and leopards from 42 to 80. Still fragile, but no longer a population staring into the abyss.

25 years ago,
it was fashionable
to say that the Amur
leopard was doomed.
Today more than 120 of
these magnificent cats
walk the forests



Animals do not know borders, but conservation institutions traditionally do. Leopards drift back and forth across the 280-km Russian–Chinese frontier every week, and simply adding up national counts overestimates the true population by nearly a fifth. To manage one population, we needed one framework.

That framework arrived on 16 May 2024, when Russian and Chinese ministers signed an agreement in Beijing, in the presence of President Vladimir Putin and General Secretary Xi Jinping, establishing the world's first transboundary reserve dedicated to Amur leopard and Amur tiger – the Land of Big Cats. It unites Russia's Land of the Leopard National Park and Kedrovaya Pad Reserve with China's Northeast Tiger and Leopard National Park.



View of the temperate coniferous and broadleaf forest, Russian Far East

A joint work programme is already underway: shared anti-poaching and anti-fire exercises, educational exchanges, joint international ecotourism, and – most important for science – a full exchange of camera-trap data. By the end of 2026 this exchange will allow us, for the first time ever, to produce a truly unified estimate of how many Amur leopards and Changbaishan Amur tigers share our common territory.

None of this means the Amur leopard is safe. Upgrades to highways and railways along the border could yet fragment habitats the cats have only just begun to reclaim. Poaching of ungulates, forest fires and livestock grazing inside leopard habitat remain constant pressures, and for true long-term security experts say the population needs to pass 150 breeding

adults in Russia only.

Individual stories keep us grounded. A young female we call Alexa once crossed into China (before the national park in China) and was caught in a poacher's snare, opening a gaping wound across her belly. We were certain we had lost her. A year later a camera trap caught her again – scarred, but alive, well-fed, and soon leading two healthy cubs through the snow. Her survival is a symbol of what can happen when we give these animals a real chance; her near-death is a reminder that the threats have not disappeared. Alexa showed us the leopard's population will to live. With us in harmony. Amur leopards never attack humans unprovokedly.

Twenty-five years ago, it was fashionable to say that the Amur leopard was doomed. Today more than 120 of these magnificent

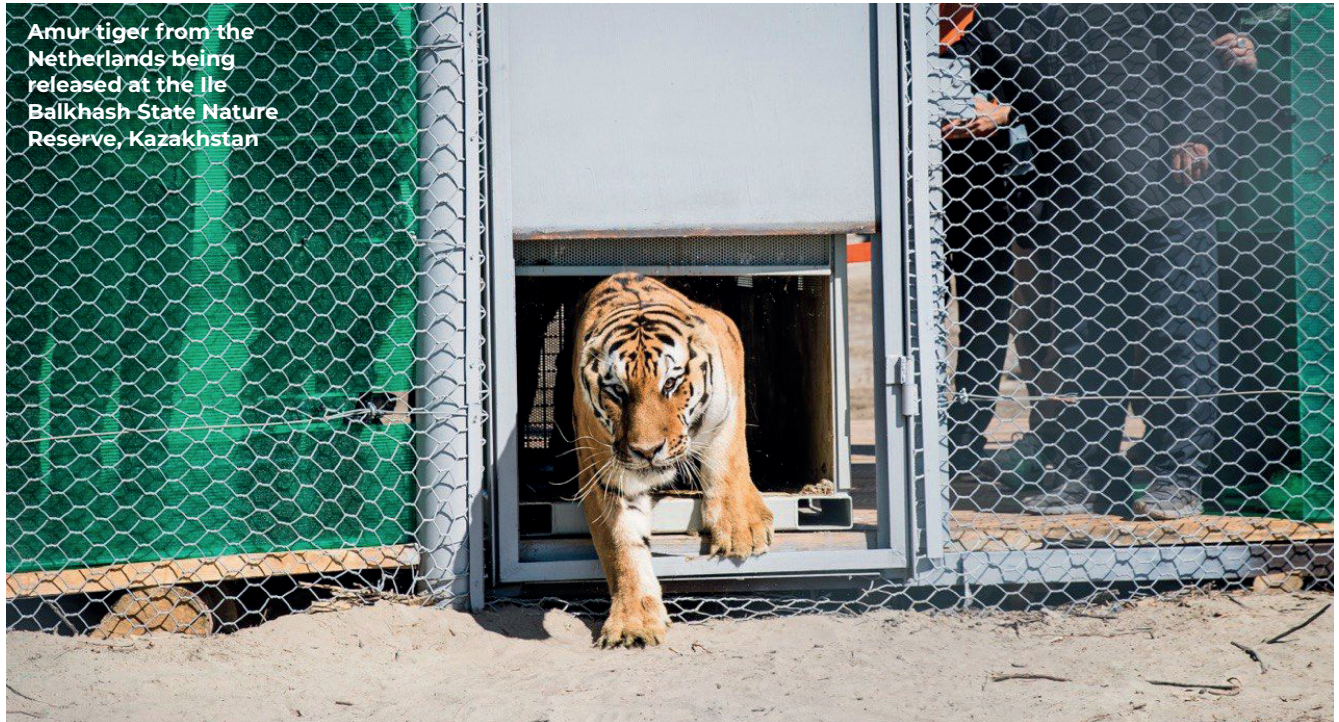
cats walk the forests straddling two of the largest countries on Earth, their cubs born into a landscape patrolled by rangers from both sides. Their story is no longer about managing extinction; it is about managing recovery.

Victor Bardyuk, Director of the Land of the Leopard National Park, says, "All great moments in human history began with a dream. Once, we set ourselves a goal – to save the leopard. Today we see the result."

The Amur leopard has become, quite simply, a symbol of resilience – proof that with patience, science, political will and genuine cross-border cooperation, the impossible is possible. 🐾

Rakov-Naumets Ivan is Chief of Public Relations, Land of the Leopard National Park.

Amur tiger from the Netherlands being released at the Ile Balkhash State Nature Reserve, Kazakhstan



All photos courtesy World Wildlife Fund

Reintroducing Tigers in Kazakhstan The Journey has Begun

The reintroduction of the Caspian tiger in Kazakhstan is an example of sustainable wildlife preservation



BY ARMAN ASSANBAYEV

This is the year of Turan in Kazakhstan. After more than 75 years, the process of reintroducing the Caspian tiger (also called Turan) has begun. These tigers once lived along the banks of Balkhash Lake and the coast of the Amu Darya River. Historic hunting and destruction of habitats primarily drove the tigers to extinction.

Turan tigers (*Panthera tigris virgata*) range from the Caucasus to the Altai and across Central Asia. In Kazakhstan, the last confirmed sighting was reported in

1948. The closest living relative of Turanian is the Amur tiger (*Panthera tigris altaica*). Several genetic studies have indicated that the Turan tigers that once inhabited Central Asia were closely related to the Siberian tiger population of eastern Russia. This close genetic relationship led conservationists to plan to use Amur tigers as the founding population for the reintroduction effort.

In Kazakhstan, for more than a decade, the discourse on tiger reintroduction has been led by political heads and the scientific communities. Conversations



BY YERKULAN DUISEKEYEV

around the reintroduction started way back in 2010 during the first International Tiger Conservation Forum held in St Petersburg, Russia. The Forum brought together representatives from the 13 tiger range states, donor states and international organisations and tiger experts from all over the world. At the Forum, participants declared to double the world's tiger population by 2022.

After gaining independence from the Soviet Union in 1991, Kazakhstan established its own environmental and wildlife conservation policies. The

Various Stages of Reintroduction

Considering the territory most favourable for the restoration of populations of the rare predator, the Ile-Balkhash State Nature Reserve was established in 2018 as a specially protected natural area for the reintroduction of the Caspian tiger. The reserve was established with the support of World Wildlife Fund (WWF) and the United Nations Development Programme (UNDP), and spans 4,15,000 hectares of land and Ile river delta, shrub-small trees forests, and wetlands along the southern shore of Lake Balkhash. Close to 37,000 tree saplings were planted to restore the habitat.

Rebuilding a lost ecosystem from the ground up requires restoring biodiversity and a stable food chain. Since 2019, 61 Bukhara deer and 119 kulans (Turkmenian wild asses) have been introduced into the landscape. The deer population has grown steadily and indicates successful adaptation to the wild. In the Altyn Dala Conservation Initiative, started in collaboration with the Frankfurt Zoological Society (FZC), 75 million hectares of steppe have been restored. Curbing illegal trade has further boosted kulan numbers and professionalised park management.

The first two Amur tigers arrived from the Netherlands in September 2024. The two tigers, male named Kuma and a female named Bogdana, are currently housed at the Ile-Balkhash State Nature Reserve. Four more tigers are scheduled to arrive this year. In November 2025, the Russian Minister of Natural Resources and Environment, Alexander Kozlov, and his Kazakhstani counterpart, Yerlan Nysanbayev, signed on a joint action plan for the import of Amur tigers from Russia to Kazakhstan and their initial adaptation.

In the second stage, once the cubs are delivered, they shall be released into the Balkhash Reserve. In the last stage, collaboration with global partners such as Kaziranga National Park in Assam, India, will provide training in implementing safeguards to protect populated areas and nearby communities.



View of the enclosure at the nature reserve where the Amur tigers are housed

government reviewed the list of animals that historically inhabited its lands, focusing on tigers, who had become extinct.

The Government of Kazakhstan, represented by the Ministry of Ecology, Geology and Natural Resources of Kazakhstan, and the World Wildlife Fund (WWF), signed a memorandum to implement a project aimed at reviving the wild population of Turanian tigers, in the pre-Balkhash region. The duration of the programme is estimated to be 15 years, and would be executed over three stages – first, preparation of the habitat; second, release of the animals into the wild; and the third, active monitoring of the programme's success. Kazakhstan's multi-vector efforts and diplomacy led to introduction of the first tigers into the Ile Balkhash reserve.

Partnership with IBCA

In February 2025, the Government of India and the International Big Cats Alliance (IBCA), with significant support from the Embassy of India in Kazakhstan, organised the ITEC-Executive Course on 'Capacity Building for Wildlife and Conservation Practitioners' providing an opportunity to representatives from 26 countries to observe successful biodiversity and tiger

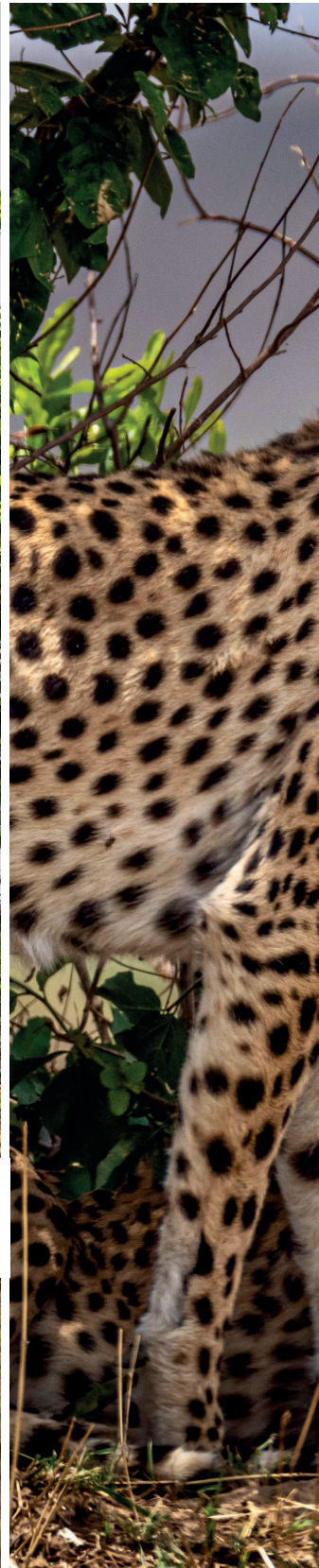
conservation practices. From Kazakhstan, Yelnur Akhmetov, Director of the Kolsay Kolderi National Park and the first author, participated in the programme, discussing experiences of reintroduction or the restoration of a population of extinct tigers.

This collaboration will help create animal rescue and rehabilitation centres, a vital tool for preserving the populations of snow leopards, tigers and their habitats, as well as other animals.

In March 2025, Kazakhstan President KK Tokayev proposed the creation of the International Fund for the Conservation of Biological Diversity of Kazakhstan. He noted the importance of initiatives to preserve and restore the population of the Turanian tiger in the Balkhash region as well as the importance of preserving and increasing the snow leopard population.

In the future, the tiger reintroduction project in Kazakhstan will stand as a rare example of large-scale predator restoration, bringing back a species that once moved through Central Asia's valleys and forests. A fine example of green diplomacy, promoting global values of preserving big cats, including tigers and snow leopards in inclusive, equitable and sustainable environments. 🐾

Dr Arman Assanbayev is Associate Professor, Astana International University, Astana, Kazakhstan. He is also scientist of the Kolsay Kolderi National Nature Park
Yerkulan Dusekeyev is the Founder of Global Nature Initiatives (NGO) and a student of Saken Seifullin Kazakh Agrotechnical Research University, Astana, Kazakhstan.



A Cheetah's Survival Guide



(Left and Above)

Nashipai with her nearly grown daughters in the Masai Mara. Learning how to remain alert is essential to their survival. The young cheetahs stay close during the final months before moving away, a critical stage when many cheetahs do not survive



TEXT & PHOTOGRAPHS
BY GEORGINA GOODWIN

M

Masai Mara is often imagined as a landscape of abundance. Vast open grasslands, scattered acacia trees and predators moving freely across the plains. But survival here is never guaranteed.

This photo essay follows the lives of several female cheetahs in Kenya's Greater Mara ecosystem and explores what it takes for cheetahs to survive in one of Africa's most competitive predator landscapes.

In the Masai Mara, seeing a cheetah is often described as luck. A vehicle rounds a bend and suddenly there she is, stretched across a termite mound or scanning the grasslands. The moment can feel effortless.

But spend enough time here and you begin to realise that luck has very little to do with it. For a cheetah to survive in the Mara, many things must quietly align. Space. Timing. The ability to avoid stronger predators. A landscape that remains open enough for movement.

The Mara is more than the national reserve itself. It is a network of conservancies, community lands and wildlife corridors that together form a functioning ecosystem. Cheetahs rely heavily on this openness. A female raising cubs may shift her range repeatedly while searching for safer ground or areas with fewer lions and hyenas.

Cheetahs are among Africa's most recognisable animals, yet their numbers remain surprisingly low even in places like the Masai Mara. Monitoring by the Mara Predator Conservation Programme has suggested that only a relatively small number of independent resident cheetahs

(Below and Right)

Nashipai moves across the Mara plains with her daughters in a landscape shared with lions, hyenas and leopards. Successfully raising cubs to independence is exceptionally rare for cheetahs

Namunyak, seen alone in southern Mara a few months before giving birth to her cubs, yawns as she takes a short rest on a shaded termite mound



move through this vast ecosystem.

If the landscape becomes fragmented through fencing, development or increasing pressure, those advantages quickly begin to disappear. This is why connected landscapes matter so much.

Without space to move, survival becomes harder.

The life of a young cheetah changes quietly. One season it moves across the plains beside its mother and siblings. The next, it is alone.

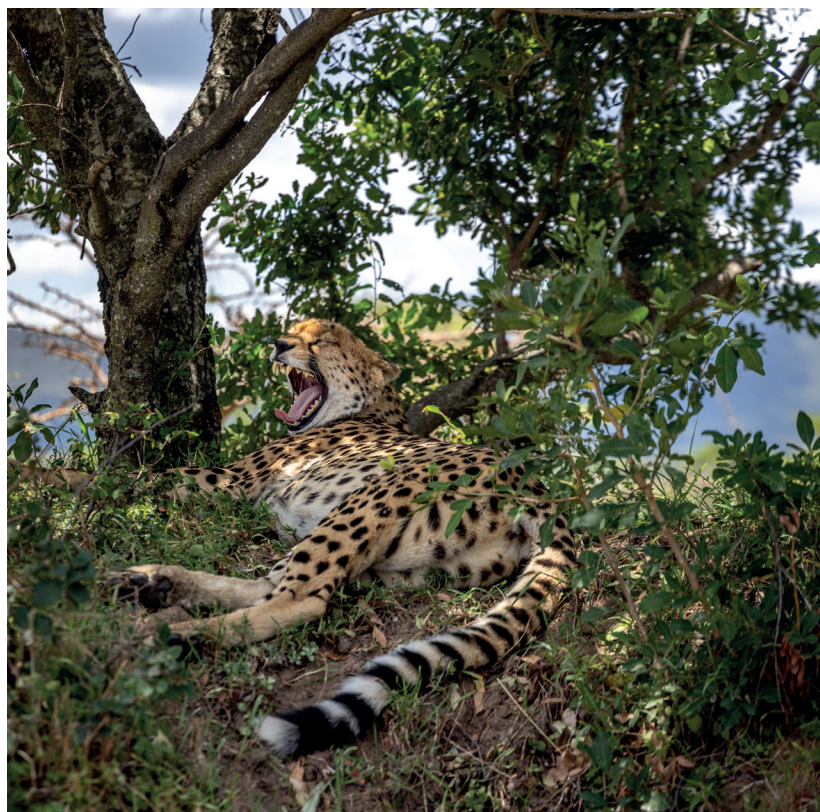
For cheetahs, this transition is one of the most vulnerable stages of life. Across Africa, many cubs never reach independence. Lions, hyenas and other predators present constant danger, while the same open plains that allow cheetahs to hunt with speed also leave them exposed.

I was reminded of this while photographing a female cheetah known locally as Nashipai. She moved slowly through the grasslands with her three daughters – Naimutie, Nasieku and Nempiris – close behind her.



At that age the young females were lanky adolescents, curious and restless, sometimes straying too far before returning to their mother's quiet presence. Even then, their survival was not guaranteed.

Watching Nashipai move across the landscape with her daughters, it was impossible not to recognise how remarkable that moment already was. Successfully raising cubs to this stage of life is an achievement many female cheetahs never manage.



Young cheetahs sometimes remain together for a period after separating from their mother. Moving as a small group offers familiarity and support while they learn to navigate the landscape independently.

But independence eventually arrives for every cheetah. Gradually the sisters separated, each beginning to establish her own place within the Mara.

I later encountered one of the daughters, Naimutie, moving cautiously through the southern plains. She stopped often to scan the horizon before continuing through the grasslands.

Watching her move across the plains, it was clear she was still learning. Cheetahs survive by avoiding conflict. Lions dominate much of the grasslands, while hyenas move widely across the ecosystem. Leopards hold territories along wooded areas and riverine forests.

A young cheetah must navigate all of this while also learning to hunt successfully enough to survive. Speed may be their most famous

(Below and Right) The open grasslands of the Masai Mara form one of Africa's most important wildlife ecosystems, where predators and prey share the same shifting landscape

Young Naimutie, one of Nashipai's daughters, scans the grasslands as a newly independent cheetah





trait, but awareness is just as important. A solitary cheetah pauses frequently to look across the landscape. It listens. It watches. Every movement is careful.

Across the Greater Mara ecosystem, wildlife moves between conservancies, community lands and protected areas. These connected landscapes allow predators to adjust to changing prey movements and competition. For cheetahs, that space is vital.

Elsewhere in the Mara, female cheetahs continue the difficult cycle of survival and motherhood in an increasingly pressured landscape. One of them is Namunyak, a female known for successfully raising cubs despite the challenges cheetahs face across the ecosystem.

Recently, Namunyak was seen again with a new litter, another reminder that despite the challenges cheetahs face across the Mara ecosystem, some continue to survive and raise the next generation.

But every young cheetah that survives long enough to raise cubs reminds us that the delicate balance of this ecosystem is still holding. For now.

Georgina Goodwin is a Kenyan documentary photographer with a focus on environment and social issues. Her work has been published by NY Times, Elle, Vogue and many others, and exhibited around the world.



TEXT & PHOTOGRAPHS
BY **SHOVNA UPADHYAY**

A large photograph of a tiger swimming in a pond. The tiger's body is partially submerged, and its reflection is clearly visible in the calm water. The background shows a rocky bank with some green plants.

The Quiet **Continuum**



Paarwali in her
personal 'pool',
Corbett Tiger
Reserve

Dhikala range of Corbett Tiger Reserve (CTR) in northern India unfolds a mosaic of sweeping grasslands, dense Sal forests, and the silver thread of the River Ramganga cutting through it. It is in this jungle, edged with shadow and slanted sunlight, that Paarwali (a Bengal tiger) and her progeny learned the art of survival. Paarwali got her name from Paar, an ecotourism zone within the tiger reserve.

Paarwali was photographed several times, including while swimming in her 'pool' in Paar. However, when she first gave birth to two cubs, the moment was special. All of us celebrated. Then we heard that the cubs were no more. This news saddened us for days. But we were ecstatic again when we came to know she had become a mother for the second time.

Paarwali was the provider – hunting and sharing a kill. She often let her cub chase her in the waters of Ramganga. A concerned mother – when currents grew strong, she would pause midstream and glance back to ensure he was safe. The mother did not hesitate to snarl at him – firm, corrective, and necessary communication. She was shaping a future predator, teaching him everything she knew. He was a good learner. But he was still learning and did not know all the rules of the jungle.

He had a lot of nicknames, but some thought he should be named Paarwala once he grew up. But nature had other plans. The jungle does not grant grace for inexperience. Before he could fully claim his place, he succumbed, likely to an attack by another tiger.

Paarwali gave birth again, to three daughters. The 2020–2021 season in Dhikala became unforgettable. The three siblings offered a rare window into the lives of tigers. The cubs grew strong under the watchful eyes of Paarwali. There were moments when even photographers, trained to chase the perfect shot, lowered their cameras to simply watch with joy the mother and her daughters.

Pedwali with
her cubs





(Below) Grown-up cubs in Corbett Tiger Reserve

(Left) Chhoti Paarwali with her cubs



After the 2022 monsoon, Paarwali was no longer seen in the Paar area. She had moved on, leaving space for her daughters. Relief came when she was later photographed in the Durgadevi range, alive, resilient, still part of the forest.

The three girls were given names – Chhoti (smaller) Paarwali claimed part of her mother's territory. Pedwali developed a curious fondness for climbing trees. Gathiarouwali carved out her own space. By the end of 2022, Gathiarouwali disappeared.

A year later, we found that Pedwali had become a mother of three. And, we saw Chhoti Paarwali across the river. Looking at her, I wondered if she would be a mother soon? She actually had four cubs later! Then in late 2025, Gathiarouwali reappeared with two male cubs.

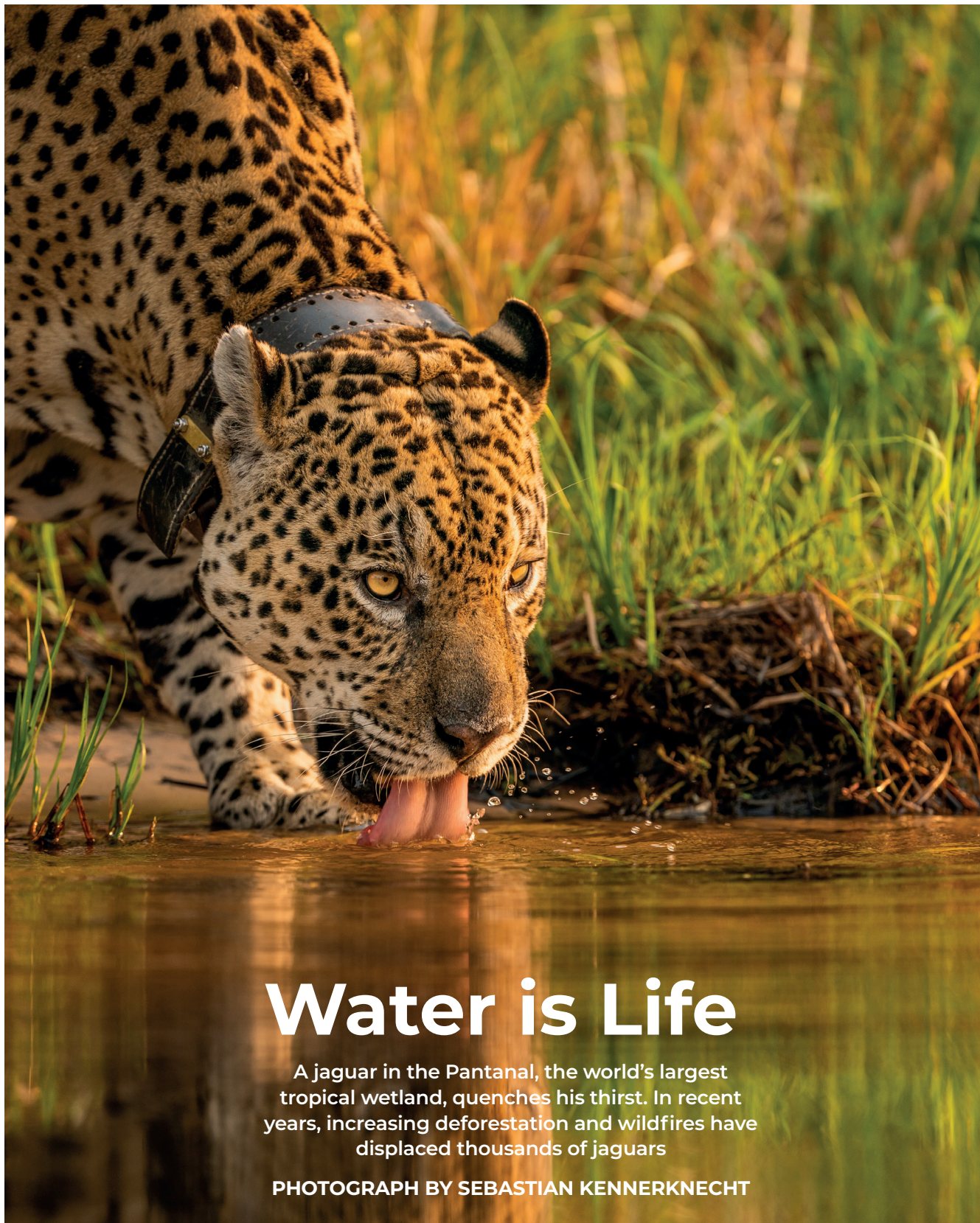
Loss, however, remained a constant companion.

Chhoti Paarwali lost one cub, and Pedwali lost two. Yet, amidst this cycle of struggle, something remarkable unfolded. Chhoti Paarwali's daughter began appearing in Pedwali's territory. In a world where tigers fiercely guard their space, she was not driven away. Instead, Pedwali shared her kill with the young tigress – an act rare enough to feel almost extraordinary.

Nowadays, she is seen more in her aunt's territory than her mother's. Has Pedwali adopted her niece after losing her daughter, we wonder.

And the story continues, changing, unfolding, teaching. Next season will bring new lives, new losses, new territories claimed and challenged.

Shovna Upadhyay is a wildlife photographer and author of *My Tigers, My Stories*, a pictorial travelogue and memoir capturing portraits and insights about the Bengal tiger.



Water is Life

A jaguar in the Pantanal, the world's largest tropical wetland, quenches his thirst. In recent years, increasing deforestation and wildfires have displaced thousands of jaguars

PHOTOGRAPH BY SEBASTIAN KENNERKNECHT

Wild



World News

Communities and Carbon Credits Come Together

In the drylands between Tsavo East and Tsavo West National Parks in Kenya, a quiet transformation has been unfolding, one that proves conservation can work not just for wildlife, but for people too.

A decade ago, this landscape faced familiar challenges: deforestation, wildlife pressure, and limited livelihood options for local communities. But today, the Kasigau Corridor project stands as a powerful example of how conservation, economics, and community development can come together. Through a system of carbon credits, the project protects vast stretches of forest while generating income from avoided carbon emissions. These funds are then reinvested directly into local communities. The results have been remarkable.

Read More: https://www.researchgate.net/profile/GraceKoech/publication/327098020_Tamarind_Value_Chain_Development_for_Enhanced_Biodiversity_Conservation_and_Livelihoods_in_East_Africa/links/5e6f42eea6fdccf994cd7160/Tamarind-Value-Chain-Development-for-Enhanced-Biodiversity-Conservation-and-Livelihoods-in-East-Africa.pdf#page=87

Bengal tiger in Sanjay
Dubri Tiger Reserve



Photo: Wikimedia commons / Tisha Mukherjee

Tigers Help Forests Store More Carbon

A recent study published in *Global Change Biology* shows that forests with healthy tiger populations can store 1.5 to 2 times more carbon than forests where tigers are absent.

The study analysed forests across Asia, including India, Nepal, Southeast Asia, and the Russian Far East, using satellite data and field research. It found that tigers help regulate herbivore populations like deer, preventing overgrazing. This allows vegetation and soil to store more carbon a process known as a trophic cascade.

Researchers estimate that tigers contribute to the removal of around 160 million tonnes of CO₂ every year, highlighting their unexpected role in climate regulation. This means protecting tigers could support both biodiversity conservation and climate goals.

Interestingly, the impact is strongest in tropical forests, where vegetation growth is high. Scientists describe this process as part of “animating the carbon cycle” where animals actively shape how ecosystems capture carbon.

The findings suggest that conserving and restoring tiger populations could be a powerful, nature-based solution to address both climate change and biodiversity loss.

Read more: <https://globalrewilding.earth/tigers-and-climate-first-of-its-kind-research-in-asia-finds-a-dual-win-for-nature-and-climate-policy/>



A puma
perched in a
tree in Alajuela,
Costa Rica

Photo: Pexel / Jean Paul
Montanaro

The Secret Role of Pumas in Nature

Pumas are not just solitary hunters; they play a bigger role in nature than most people realise. A recent global review shows that pumas interact with over 480 species and influence ecosystems in multiple ways, from controlling prey to supporting other animals. The study analysed data from over 160 research studies conducted across North and South America, covering the full range of pumas from Canada to the southern Andes.

As top predators, pumas help regulate populations of animals like deer, which prevents overgrazing and protects plant life. But their impact goes beyond hunting. Even the fear of pumas changes how prey behave, forcing them to move and feed differently. This can allow vegetation to recover and support more biodiversity.

Pumas also provide food for many other species. When they kill prey, the leftover carcasses become an important food source for scavengers, including birds, mammals, and even insects. In some ecosystems, their kills support a large portion of local wildlife.

Scientists describe pumas as “ecological brokers” because they connect different parts of the food web and help move energy through ecosystems.

Read more: <https://doi.org/10.1111/mam.12281>

The World's Longest Elephant Migration

Photo: Pexel / Willemijn Doelman



Group of African elephants in the savanna, showcasing wildlife in natural habitat

Long-distance movement is vital for survival, but new research reveals just how extraordinary and fragile these journeys are.

A study in biological conservation utilised GPS data

to map the desert-adapted elephants of Mali's Gourma region. The findings are record-breaking: these herds navigate the largest home range ever recorded for African elephants, 29% larger than any other known population. One female, Bahati, was clocked covering nearly 65km in just 24 hours.

The elephants' migratory journeys are not random. They monitor "invisible gradients" to coordinate their movements with water and optimal nutritional value (via dietary) across various dried desert grasses at different times during migration.

However, the study identified critical bottleneck zones. These narrow corridors are the migration's "crux points"; a single fence or road here could sever a route learned over centuries. Mothers teach these paths to calves, making them a living inheritance. If the landscape is fragmented, this collective memory and the species' survival could disappear forever.

Read more: <https://doi.org/10.1016/j.biocon.2012.07.019>

A caracal with distinct tufts and vibrant coat



Photo: Pexel / Annari du Plessis

Urban Expansion Is Isolating Caracals in the Wild

Rapid urban growth is not just changing landscapes; it is also affecting how wildlife survives. A recent study on caracals in Cape Town, South Africa, shows how cities can slowly isolate wild animals.

Caracals once moved freely across large areas, but today roads, buildings, and

human development are breaking their habitats into smaller pieces. The study found that caracals living in the Cape Peninsula are now cut off from other populations, even though they are only a few km apart.

Because of this isolation, these animals are becoming more closely related to each other and losing genetic diversity. This can make it harder for them to stay healthy and adapt to changes like diseases or climate shifts.

The findings highlight the need to design cities in a way that allows wildlife to move safely, so species like caracals do not become trapped in isolated pockets.

Read more: <https://doi.org/10.1007/s10592-026-01776-9>

Striped hyena in Bhigwan

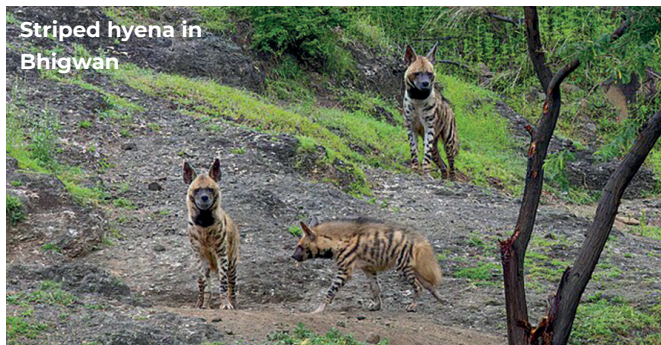


Photo: Wikimedia commons/
Tisha Mukherjee

Striped Hyena's Fight for Protection

Since 2014, the IUCN Red List has classified the striped hyena as Near Threatened, but the assessment has generated an updated warning. A proposal to uplist the species to CITES Appendix I was turned down in late 2025, as it succeeded in being transferred from Appendix III to Appendix II.

At the recent CMS COP15 in March 2026, it was noted that the species had achieved the important milestone of being listed in both CMS Appendix I and II.

This shift in the status of the striped hyena is a significant advancement for the species. The shift to CITES Appendix II provides a legal means of regulating international trade via permit systems.

The CMS dual listing provides for complete protection of individuals from being killed, as the species must receive a coordinated international response through the Central Asian Mammals Initiative.

Read more: <https://cami.cms.int/news/governments-endorse-new-work-programme-protect-central-asias-shared-land-migratory-species>

Looking into the Future

Fierce and elegant at the same time,
a puma appears to rest inside
Torres del Paine National Park, Chile

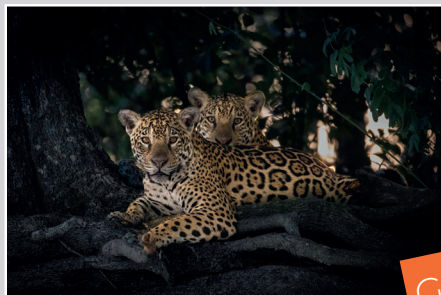
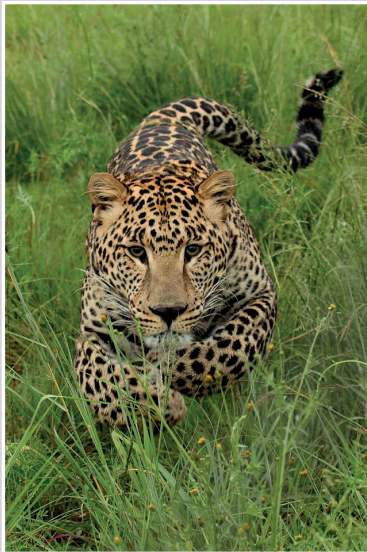
PHOTOGRAPH BY SHARON OSBERG





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Big Cats

Address for Correspondence:

Sankala Foundation
B-414 - 416, Somdutt Chamber -I,
Bhikaji Cama Place
New Delhi - 110 066, India.
Tel: +91 - 8800123344

E-mail: bigcats@sankala.org