



LATIN AMERICA'S ENVIRONMENTAL POLICIES IN GLOBAL PERSPECTIVE

This series explores the international dimensions of Latin America's environmental challenges and the role of environmental issues in shaping the region's most important diplomatic and economic relationships.

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The Latin America-to-Asia Wildlife Trade

Both Illegal and Legal Shipments Are Growing in Tandem With Chinese Economic Investment

By Sharon Guynup

INTRODUCTION

Our local fixers guided us to the back of the Belén outdoor market in Iquitos, Peru, where vendors were selling “natural” products. We passed shelves laden with liquid potions, some in plastic bottles, their contents crudely penned in marker: BOA, IGUANA, TORTUGA. Others hawked preserved crocodile heads; tooth, claw, and shell jewelry; and a wide array of other wild animal products.

Then, we found what had brought our undercover *National Geographic* team to the Peruvian Amazon: a table displaying a stuffed jaguar head. Jaguar and ocelot skins were tacked to the wall in an adjoining stall. We made further inquiries, and a

man cautiously brought two more jaguar skins from a warehouse. He told us he could obtain more.

Across town, we discovered jaguar-tooth necklaces, jaguar pelts, and cat-skin bracelets for sale at tourist shops. Many sellers were furtive, only showing the items upon request.

Then we took a short boat ride up the Amazon River to meet with members of the Boras Comunidad, an Indigenous group that periodically came to the forested outskirts of Iquitos to sell handmade items and perform traditional dances for tourists. The elders told us that in 2015 Chinese buyers began placing regular orders with them for jaguar teeth and skins.

Photo credit: Members of the Boras community, a Peruvian Indigenous group, with a jaguar skin in Iquitos, Peru: Steve Winter/National Geographic



Photo credit: Baskets with dried shark fin, herbs, and fish products at a traditional Chinese medicine shop in Chinatown, Singapore: SvetlanaSF, Shutterstock

Back at home, he and his family killed jaguars to fulfill those orders.

“Peru has become a poaching and trafficking hotspot.”

This field work, conducted in 2017, offers additional hard evidence that jaguar poaching for teeth, skins, and bones has grown for the first time since the 1970s. With few wild tigers remaining, jaguar parts are being substituted for endangered tigers on the Asian black market, spurred by increasing Chinese-backed development in Latin America. This illegal trade is posing a new threat to *Panthera onca*, the largest big cat in the Americas.

LATIN AMERICA: A NEW WILDLIFE TRADE HOTSPOT

Back in Iquitos, officers at the Loreto Regional Environmental Authority told us that jaguars are not the only concern. They showed us dozens of

confiscated wildlife products—and a live baby sloth they’d seized earlier that day. It looked at us, wide-eyed and unmoving, from a desk chair.

In recent years, Peru has become a poaching and trafficking hotspot. Officials confiscated some 79,000 live animals from 2000 to 2017, as well as innumerable parts and products.¹ Many were endangered species, which are frequently laundered amid captive-bred or other legally traded shipments. More vigorous enforcement has driven some of the trade underground, the officers said.

It’s not just a Peruvian problem. While wildlife is bought, sold, and consumed in every country on Earth—frequently in violation of national and international laws and treaties—the tropical New World is becoming a new center. In an address at the 2018 Illegal Wildlife Trade Conference, Susan Lieberman, vice president of international policy at the Wildlife Conservation Society (WCS), warned of a rapidly growing crisis: a mushrooming trans-Pacific animal trade, mostly to China.²

Latin America is an obvious target, blanketed by more than a quarter of the world's remaining forest.³ It's home to more species than anywhere on Earth—some 60 percent of all terrestrial creatures, living in widely diverse habitats, including grassland savannahs, deserts, high peaks, iconic rivers, thick jungles, and mangroves.

The wildlife trade is emptying the landscape. Rare animals are poached and sold illegally; many legally traded species are being overharvested at unsustainable levels. The 2020 Living Planet Report estimated a 94 percent drop in wildlife populations in the tropical Americas from 1970 to 2010.⁴ About 12 percent of the region's 14,000 species are now threatened with extinction.⁵

Poaching and habitat loss pose interconnected threats. Roadbuilding begins a chain of destruction, driven by infrastructure development;⁶ the quest for valuable timber, minerals, and oil; and industrial-scale farming and ranching. Large-scale development has opened huge swathes of the Amazon and other previously inaccessible wilderness to hunters and poachers.

While poaching in Latin America has not yet reached crisis levels, a WCS report warns that "similar conditions were present less than two decades ago in Africa prior to the Asian-driven declines in Africa's megafauna that we see today"—which led to catastrophic elephant and rhino poaching.⁷

GROWING DEMAND

The greatest demand comes from international markets. China has become a major destination for wildlife parts sourced from the region, said Salvador Ortega, Interpol's head of forest crime for Latin America, in an interview.⁸ WCS's Lieberman estimates that wildlife trade between the two continents has doubled over the last decade.

Globally, China is by far the largest consumer of both legally and illegally traded wildlife;⁹ Hong Kong, Vietnam, and other Southeast Asian countries are also substantial buyers.¹⁰ During the 1990s, fast-growing economies provided greater spending power to larger numbers of people. Demand for wild animal products skyrocketed, consumed as medicine and gastronomic delicacies and bought as status symbols, pets, or decoration.¹¹

Numerous Latin American species are used in traditional Chinese medicine, though there is no scientific data supporting their efficacy. That includes totoaba, a fish coveted for its swim bladder; seahorses; sea cucumbers; and Andean bears, sought for their gall bladders. Jaguar teeth, claws, and bones are used in traditional medicine and jewelry.

"Roughly one-third of Latin America's parrot species face extinction."

Both turtle meat, served as specialty dinners, and eggs are thought to protect against muscle spasms, replenish vital organs, and maintain men's sexual function.¹² Their shells are fashioned into earrings, combs, and a plethora of decorative items. Sharks are being fished to extinction for shark fin soup, and Mexico's geoduck clams are a luxury seafood entrée at Chinese banquets. The many Chinese nationals who now live and work in the region have created a demand for eels,¹³ an animal not eaten by locals, thought to treat the lungs, liver, bladder, and spleen. Stingrays and skates are sought for traditional Korean dishes.

There's also huge demand for pets in China, including songbirds, parrots, and macaws; roughly one-third of Latin America's parrot species face extinction. Hobbyists and private collectors also buy poison dart frogs, ornamental fish, reptiles, and more.



Photo credit: Jaguar skin for sale in Belén Market in Iquitos, Peru: Steve Winter/National Geographic

RISING CHINESE INVESTMENT

Experts link the growing Latin American wildlife trade to an influx of development by Chinese companies, according to a 2020 investigation by the International Union for Conservation of Nature Netherlands.¹⁴ Investments over the past 15 years include more than \$140 billion loaned by two state-owned Chinese banks.¹⁵

A team of conservationists and economists recently revealed that 60 percent of the new roads, dams, and other development projects financed by these Chinese banks endanger entire ecosystems by bringing people and commercial activity into previously wild areas.¹⁶ Nearly one-quarter of these initiatives penetrate existing protected areas; one-third spill onto lands owned or administered by Indigenous peoples.

Up to 24 percent of the world's threatened mammals, birds, reptiles, and amphibians could be impacted.

THE HISTORY OF HUNTING IN LATIN AMERICA

Hunting in the region has a broad historical context.¹⁷ Mesoamerican cultures depended on wild animals for food and clothing, as many rural populations do today. Ancient cultures also kept wildlife as pets. They wore and displayed exotic skins, horns, and teeth as symbols of status and power. Aztec rulers wore headdresses made from hundreds of iridescent quetzal feathers. Maya kings draped themselves in jaguar pelts.¹⁸ Researchers have unearthed evidence of the wildlife trade across Mesoamerica.¹⁹

But until the 1960s, most hunting was for food. That changed when commerce eclipsed subsistence. Demand for fur coats in the United States and Europe targeted jaguars, and the international exotic bird trade drove parrots, macaws, and other wild birds to near extinction.²⁰ At the same, expanding development razed many of the planet's remaining forests, destroying many animals' natural habitats.

“Traders move millions of animals each year—alive, dead, and in parts.”

In 1973, amidst a growing global biodiversity crisis, a treaty was created to regulate commerce in imperiled species. The Convention on International Trade in Endangered Species (CITES) has now been signed by 184 nations.²¹ Depending on conservation status, trade of listed species is allowed with permits—or banned.

Meanwhile, the black-market wildlife industry still thrives worldwide. CITES also has not been able to keep pace with the massive amount of legally permitted commerce, which has increased by 2,000 percent since the 1980s. It may be four times the size of the illicit trade, according to a 2020 assessment by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.²² Traders move millions of animals each year—alive, dead, and in parts. Some of this commerce is sustainable. Much of it is not.

COLLATERAL DAMAGE: NATIONAL SECURITY AND CORRUPTION

The international illegal wildlife trade is valued at up to \$23 billion per year (excluding fishing) by the United Nations Environment Programme. The Global Environment Facility calls it “one of the most lucrative illegal businesses in the world.”²³ It ranks as the world’s fourth-largest source of criminal earnings (after drugs, weapons, and human trafficking). With little enforcement, it’s a low-risk, high-profit enterprise.

Wildlife trafficking, once considered a “green” issue, is now recognized as a serious global security threat because of who the perpetrators often are:

transnational criminal organizations and terrorist groups that operate across borders, aided by governmental corruption that undermines the rule of law.^{24, 25}

Organized crime has exploded in Latin America and the Caribbean over the past four to five decades. These regions are now home to many of the world’s most violent cartels and other large, sophisticated criminal networks,²⁶ many of which have embraced eco-crime: illegal logging, fishing, mining, and trafficking of high-value animal species, including jaguars.²⁷

A 2020 report by the United Nations Office on Drugs and Crime (UNODC) detailed the corruption that allows criminals to operate with impunity, launder money, and create a veneer of legitimacy that protects their businesses.²⁸ The actors fall into four categories:

- Criminal networks/entrepreneurs that mastermind the trade.
- Poachers who capture and/or kill animals.
- Middlemen who contact hunters, place orders from criminal entrepreneurs, process animals, oversee regional collection centers, and arrange transport.
- Facilitators—often officials, breeders, or other legal actors who smooth the way.

UNODC has documented collusion and payoffs throughout the entire chain. That includes documented bribes to park rangers, police and customs officers, military personnel, and other officials who provide information, create false paperwork, allow specimens to cross borders, and disrupt investigations into criminal activity.



Photo credit: Jaguar, mom, and cubs in the Brazilian Pantanal: Steve Winter/National Geographic

Nonprofits and the media have exposed high-level involvement. One case involved the Peruvian Ministry of Production, which handles wildlife protection. An investigation found that from 2014 to 2018, officials knowingly certified illegal shark shipments.²⁹

Latin America has become extremely dangerous for those who try to fight against poaching and other kinds of environmental destruction. In 2021, seven Latin American countries were ranked among the top 10 deadliest places for environmental defenders.

From 2016-2020, Columbia had the most murders, but in 2021, Mexico topped the list with 54. Up to 95 percent of those crimes have never been prosecuted.³⁰

TRADE ROUTES

Animals are trafficked in every conceivable way, often under deplorable conditions. They are drugged and transported without ventilation, food, or water. They are concealed under clothing, in plastic bags or water

bottles, inside wheel wells, or hidden in luggage; loaded onto commercial flights, via international courier services; or packed into seaboard shipping containers. Mothers are often killed for their eggs or babies. Eight out of 10 trafficked animals die during capture or transit.

Adrian Reuter, Latin America regional wildlife trafficking coordinator for the Wildlife Conservation Society, notes that animals are often smuggled across porous borders into neighboring countries that have weaker regulations or poor enforcement. To avoid law enforcement, smugglers follow ever-changing routes, sometimes combining shipments of animals with illegal drugs. The few traffickers who are apprehended generally receive small penalties. On the other end of the pipeline, China, Thailand, and other Asian countries are key transit points.

While little is known about this shadowy wildlife trade, a 2021 report by the US Agency for International Development's ROUTES Partnership shed some light on trafficking by air.³¹

Using seizure data, it identified species, destinations, and how traffickers evade law enforcement.

In some countries, criminal laws are weak and filled with loopholes, offering no deterrent. The few traffickers who are apprehended receive light penalties. Some countries have, however, taken wildlife crime seriously, Reuter says, working on national strategies to combat trafficking.³²

TARGETED SPECIES: JAGUARS

As wild tigers in Asia dwindle, jaguars and other big cats are being poached and substituted for tiger products in China. In Asia, the value of the fangs jumps by an order of magnitude over the prices in Latin America, according to a 2020 investigation.³³

Seized jaguar parts in Bolivia have garnered international press coverage, which brought attention to the region's burgeoning illegal wildlife trade.³⁴ Online commerce is growing too, particularly on WeChat, the most popular Chinese social media platform. Investigators have documented online wildlife sales to the local Asian community in Bolivia as well as to China.

Early reports of jaguars being killed to meet Asian demand came from Suriname and the Guianas.³⁵ ³⁶ Bolivia was then in the news when authorities intercepted parcels headed for China that contained jaguar teeth, mailed by Chinese citizens residing in Bolivia. From 2014 to 2016, 800 jaguar teeth were confiscated, indicating the killing of 200 cats.³⁷ This new trade in jaguar parts coincided with the growing presence of Chinese companies in Bolivia, where they are now the main contractors for the state.³⁸

But the cats are poached and traded across Latin America. A seizure in Brazil confiscated five jaguar heads and 25 paws.³⁹ Valeria Boron, the South American science and research coordinator for the

nonprofit Panthera, called these numbers "the tip of the iceberg."⁴⁰ As with any illicit trade, only a fraction is interdicted.

TARGETED SPECIES: SHARKS

Sharks are killed at industrial scale in Latin American waters for shark fin soup, an Asian delicacy.

Globally, demand has decimated shark populations: The population of the world's 31 oceanic sharks and rays has declined by 71 percent since 1970, according to a recent study in the journal *Nature*.⁴¹ Some 95 percent of oceanic whitetip sharks—among the planet's most abundant large vertebrates—are gone. Hammerheads bring top prices and are critically endangered. "Internationally driven demand will likely push many sharks to extinction," said Luke Warwick, director of WCS's sharks and rays program.

Some seriously threatened species have not yet been listed as endangered and remain unregulated. Others are on CITES Appendix I, which prohibits commercial trade.

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Depending on the species, fins can sell for \$700 to \$1,000 per kilogram (2.2 pounds)—part of a \$1 billion a year global fin trade, according to the United Nations Food and Agriculture Organization.⁴²

The sheer quantity of sharks pulled from Latin American waters is staggering. For example, Colombian authorities confiscated 3,493 fins (from 900 to 1,000 sharks) at Bogota airport in September 2021, headed for Hong Kong, which is both a consumer and a major wildlife trafficking hub.⁴³ In April 2020, Hong Kong authorities



Photo credit: Yellow-spotted Amazon river turtles, a species that is shipped to Asia in large numbers: Michael Viard, iStock

interdicted a shipment of 26 tons from Ecuador; they'd come from about 38,500 animals, most of them protected thresher or silky sharks. In October 2015, Mexican authorities seized 3.5 tons of dried shark fins from Sinaloa, Mexico, headed for Hong Kong.⁴⁴

Five Latin American countries are among the world's top 20 shark fishing countries: Mexico (4th), Argentina (6th), Brazil (9th), Peru (17th), and Ecuador (20th).⁴⁵

At least 12 Latin American countries allow fin sales but ban or restrict the practice of finning, although enforcement is generally poor or intermittent. Customs and enforcement officers rarely have the expertise to distinguish between protected and legally traded species, which are easily laundered amidst large shipments of dried fins. "Enforcement is a huge challenge, with a mix of legal and illegal trade in sharks, birds, reptiles, etcetera," says Reuter, "unlike drug trafficking, where everything is illegal."

TARGETED SPECIES: TOTOABA

The endangered totoaba (*Totoaba macdonaldi*), which lives only in Mexico's Gulf of California, has become the equivalent of swimming gold. Dubbed "the cocaine of the sea," its swim bladder sells for up to \$25,000 per kilogram (2.2 pounds) on the Chinese black market. Mexican drug cartels battle each other for control of the trade.⁴⁶

Fisherman discard most of the animal, removing the precious swim bladder, which is dried and salt cured. Smuggled primarily to China, it's used as a beauty treatment, as an arthritis cure, and cooked into a specialty soup.

There's been serious collateral damage. Underwater gill nets used to catch totoaba—strung like walls, as long as five football fields—are death traps for the vaquita, the world's smallest porpoise. Entangled in the nets, they drown. Vaquitas are now the most critically endangered sea mammal on Earth. Perhaps 10 remain.⁴⁷ Their demise is among the fastest in history, with populations dropping 99 percent in a decade.

TARGETED SPECIES: SEAHORSES, SEA CUCUMBERS, AND GEODUCK CLAMS

Sea life is a big seller on the Asian market. Seahorses (*Hippocampus*) are pouring out of Latin American seas to China, where they are an ingredient in traditional Chinese medicine treatments. They are believed to cure infertility, baldness, asthma, and arthritis; strengthen the kidneys; and used as an aphrodisiac. Many are endangered species.⁴⁸

They are pulled from Latin American seas in astonishing numbers.^{49, 50} In 2019, 12.3 million seahorses were seized in Callao, Peru.⁵¹ Nearly 100,000 were illegally shipped from Mexico from 2009 to 2019; two-thirds were destined for Beijing, Hong Kong, or Shanghai.⁵² The nonprofit Project Seahorse estimates that 100 grams (3.5 ounces) can sell for between \$120 and \$580 at Chinese markets.⁵³

Fat, tubular, hand-sized sea cucumbers (*Holothuroidea*), found on the sea floor, are also a target. They are traded to Asia as a culinary delicacy, purportedly selling for up to \$300 per pound (approximately 0.45 kilograms). Traditional Chinese medicine practitioners prescribe sea cucumbers for maladies including cancer, arthritis, incontinence, and impotence.

Mexico's Yucatan Peninsula is a current cuke hotspot: In one of the largest seizures ever, authorities confiscated 17 tons.⁵⁴ Before that, sea cucumbers were essentially extirpated from the Galapagos Islands. In a 2015 bust at the San Cristóbal airport, Ecuadorian enforcement seized 10,852 sea cucumbers (262.8 kilograms, or 578 pounds).⁵⁵

Rival gangs in Yucatán and Campeche have battled for control of the trade.⁵⁶ During a well-planned

robbery in 2015, 10 armed men overpowered three armed guards, stealing 3.5 tons of dehydrated sea cucumber in El Cuyo, on the Yucatán peninsula.⁵⁷

Rampant poaching of Mexico's geoduck clams, another luxury Asian seafood dish, has made them one of the region's most threatened marine species.⁵⁸ The legal geoduck clam industry has been steadily taken over by poachers, who reportedly operate with impunity, according to *La Jornada*.⁵⁹

TARGETED SPECIES: TURTLES, REPTILES, AMPHIBIANS, BIRDS, FISH, BEARS, AND MORE

Demand for turtles skyrocketed in tandem with a growing Asian middle class in the 1990s. They were previously eaten only on special occasions. Turtles quickly disappeared, sparking "the Asian turtle crisis."

China then sourced live turtles from around the world, most recently from Latin America. "The numbers are just astonishing," says Reuter. He cites yellow-spotted river turtles (*Podocnemis unifilis*) as an example. Peru legally exported 600 of them in 2007; eight years later, that number jumped to 356,394.

Sea turtle eggs are also a delicacy, though all seven species are endangered. Enforcement is difficult along vast remote coastlines. Mexico is now using drones to watch for *hueveros*, egg collectors digging up nests on beaches.

With a growing fascination among Chinese hobbyists and collectors, many reptiles, amphibians, aquarium fish, and exotic birds are poached for the pet trade.



Photo credit: Sea turtle eggs sold at the Mercado Central in San Salvador, El Salvador: Sharon Guynup

Animals pulled from the wild are frequently laundered among legally traded animals raised in captive breeding facilities, Reuter says, and it's almost impossible for customs officials to identify endangered species. Fish, for example, shipped as hatchlings, can be miniscule, just 0.5 millimeters long (approximately 0.02 inches).

COLLATERAL DAMAGE: ECOSYSTEMS AND PUBLIC HEALTH

This mammoth commerce is pushing thousands of species to the brink of extinction, with cascading, far-reaching effects. “We are not only losing species—we are impairing the interconnected function of entire ecosystems that evolved in synchrony over millions of years, placing them at risk of collapse,” says Chris Shepherd, executive director of the Monitor Conservation Research Society, which focuses on the wildlife trade.

Without predators, pest species overproliferate. When seed dispersers disappear, the botanical makeup of the landscape changes; plants and trees that feed resident animals become rare or disappear. If prey species are hunted out by humans, hungry carnivores kill livestock, negatively affecting families' livelihoods and sparking retaliation: Those animals often end up dead.

The uncontrolled movement of animals, especially invasive species, can damage entire ecosystems—and spread disease. The COVID-19 pandemic has made the world keenly aware of potential new threats to public health.⁶⁰ Three-quarters of all emerging infectious diseases are zoonotic, transferred from animals to humans, and the SARS-CoV-2 coronavirus is just one of approximately 500 new zoonotic diseases detected since the 1950s.

Steve Osofsky, director of the Cornell Wildlife Health Center in Ithaca, New York, lists some of the main ways that humanity invites pathogens into its own living room: by capturing and shipping animals around the world and caging them side-by-side in wildlife markets; by eating the body parts of wild

animals; and by leveling tropical forests and bringing humans, their domestic animals, and livestock together in unnatural proximity.⁶¹ This happens in every country on Earth;^{62, 63} exposing humans and animals to pathogens they lack immunity to and creating the ideal environment for new diseases to emerge and spill over between species.

The wildlife trade, both legal and illegal, creates what Shepherd calls “dangerous breeding grounds for the next pandemic.”

NEXT STEPS

Leaders from Latin American and Caribbean nations came together in October 2019 to address the crisis. Their objectives: to protect biodiversity, cultural heritage, health, livelihoods, and national security, as well as to address a threat that undermines efforts to achieve the UN’s Sustainable Development Goals.⁶⁴

Twenty-one countries signed the resulting Lima Declaration, which includes resolutions to build stronger, science-based domestic policies; meet CITES trade rules;⁶⁵ close legal loopholes that benefit traffickers; and improve criminal justice responses. Some countries are now charging wildlife traffickers with more serious offences, such as money-laundering, corruption, and fraud. The focus is also shifting to the kingpins rather than the poachers and middlemen, who are easily replaceable workers within this criminal enterprise.

Leaders noted that they need technical and financial assistance to better prevent, detect, and investigate wildlife trafficking. Enforcement experts note that disrupting illicit financial flows and understanding the ways that criminal groups exploit legal businesses are key aspects of combating environmental crime.

A number of initiatives are forging regional coordination, including Interpol’s I-24/7 global law enforcement communication system and the

International Consortium on Combating Wildlife Crime, formed by UNODC.^{66, 67}

Conservationists are also hoping that a policy put forth in July 2021 by the Chinese government to “green” its international development efforts will spark greater respect for host countries’ environmental standards, including wildlife protections.⁶⁸

There have been some steps forward.

Wildlife trafficking continues to gain importance on political agendas. Public awareness is growing worldwide. A great opportunity for progress lies within the UN’s Decade on Restoration program 2021–2030.⁶⁹

Nonprofit organizations and governments are working with communities, offering economic incentives to avert involvement in environmental crime—and to change consumer behaviors and reduce the demand for wildlife.

Another initiative, set forth by the Stop Ecocide Foundation, seeks to make ecocide an international crime, defined as “unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.”⁷⁰

In 2015, the Chinese government banned consumption of shark fin soup at government-sponsored events. As COVID-19 was spreading across the globe in February 2020, the Standing Committee of the National People’s Congress closed wildlife markets and banned the consumption of wild species for food. However, wild species are still bred for use in traditional Chinese medicine and ornamental purposes—and legal and illegal trade continue.⁷¹

As climate change continues to alter ecosystems and development destroys and degrades habitats, science-based conservation strategies gain ever more importance. Many experts are pushing for a global suspension of all commercial wild animal trade to protect biodiversity and human health.

WCS's Susan Lieberman is hopeful about the efforts to control Latin American wildlife trafficking, which is happening far earlier in the game than it did in Asia and Africa. "If enforcement is increased and governments collaborate more with each other, I believe we can stop this in time," she said.

Sharon Guynup is an environmental journalist, author, and producer who has produced award-winning content for *National Geographic*, *The New York Times*, *The Washington Post*, *Smithsonian*, and other outlets. She is a global fellow in the Wilson Center’s Environmental Change and Security and China Environment programs. She is a National Geographic Explorer and cofounder of the nonprofit Big Cat Voices.

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One Woodrow Wilson Plaza
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