



S.P.E.C.I.E.S.



CARNIVORE CONNECTION

December
2017

Welcome!



This month, travel with us to
India, Taiwan, and Sri Lanka!

December



Anthony J. Giordano
Founder & Director

An opening word from the director...

Dear S.P.E.C.I.E.S. Nation,

I am very pleased to bring this long-awaited inaugural newsletter to you, what I hope is the first of many such communications to come from us. For many years now, S.P.E.C.I.E.S. has operated quietly in the shadows and without much fanfare, doing our best and working our hardest to protect the world's carnivores and secure their future conservation. This has allowed us to focus on developing relationships with key partners and stakeholders, build upon our own early incremental successes, and establish a track record and brand that I couldn't be prouder of. Most recently, our achievements have begun to receive greater public attention, and our reputation on the world conservation stage is now our most valuable commodity. We are not a large organization with a tremendous operating budget, trying to tackle all the world's biggest conservation challenges. But nor are we a niche organization; despite our declared focus on protecting and securing viable carnivore populations and communities far into the future, studying the interactions between carnivores and the ecosystems they depend on takes us to the frontlines of conservation across the world, journeying into some of the world's most threatened and endangered ecological regions, and tackling issues at scales large and small. Whether through our Chaco Jaguar Conservation Project, where we're

fighting to hold the southern boundary of the jaguar's distribution and develop strategies to reverse deforestation in the planet's most rapidly disappearing biome, or Project Neofelis, the most encompassing and ambitious program to map and protect populations of the world's two clouded leopard species, we purposely occupy those big spaces and gaps in many of the world's conservation efforts to magnify our impact. Our strategies are thoughtful and reflective, as are the reasons we establish any program anywhere, and always circle back to one major driving question: How can we make a difference? For example, we account for the accomplishments and investments of the many laudatory achievements among today's diverse conservation institutions and efforts. A comprehensive knowledge of this landscape helps to guide our program goals and objectives, and influence how we choose our partners, which are as much a part of our successes as we are. Rather than shy away from mention of these partners, we'll be highlighting them in future newsletters, as they help to define us as much as the commitment exhibited by our staff, volunteers, and interns. And if you have an interest beyond cats, big and small, which admittedly are an important part of our program, stay tuned for news about all of the following: our work to protect sun bears and sloth bears in southern Asia; our efforts here in the U.S. to protect the Endangered Species Act; our new push to

shed light on the ecology of the world's obscure canid species, many of which are threatened; our effort to support local biologists dedicated to protecting some of the world's cryptic small carnivores; and finally, our commitment to mitigating the causes of most carnivore population and habitat declines at their source: the looming global economic and agricultural drivers of habitat loss, and the resultant processes which inevitably undermine the coexistence of local carnivore and human populations. Now more than ever our diverse ideas and strategies, scientific platform, and integrative approach, are needed to protect these species, and we ask all of you for your support. By supporting us, you are supporting not only our direct efforts to advance carnivore conservation in more than a dozen countries where we work, you're also supporting our partners and partnerships, the students we mentor, the trusted relationships we have with international governments, the heroes often putting their lives on the line... and the critical ecological role that carnivores play in the health of ecosystems sustaining us all.

Most Sincerely,

Anthony J. Giordano, M.Sc., Ph.D.
Executive Director & Chief Conservation Officer
S.P.E.C.I.E.S.

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Western Ghats

The Western Ghats of India:

Conserving a Biodiversity Hotspot



The Western Ghats, India

Image: Ramesh Tharmalingam

The Western Ghats region of India is one of the most important areas for the conservation of biodiversity. It's recognized as an UNESCO world heritage site and noted as one of the world's eight "hottest hotspots" of biological diversity. Within this mountainous area, which covers around 140,000km² and stretches some 1,600 km through India, there are at least 325 globally threatened species.

"There are very good populations of large carnivores in the Western Ghats," Dr. Ramesh Tharmalingam says. He is a researcher and conservationist working with S.P.E.C.I.E.S in the Western Ghats. The endangered Bengal tiger (*Panthera tigris tigris*), Asiatic Wild Dog (*Cuon alpinus*) and Indian leopard (*Panthera pardus fusca*), listed as vulnerable by the IUCN, are all

found here. "We also have so many other endemic birds, mammals and the highest populations of Asian elephants in India, and in fact the whole of Asia!" says Ramesh.

Despite this wealth of biodiversity, the region is under threat due to exploitation of the rich natural environment. "This area is highly fragmented for various agricultural activities," Ramesh continues. "Coffee plantations, tea plantations and more have huge impacts on habitat loss and fragmentation."

S.P.E.C.I.E.S will soon begin working in this important area, focusing on keystone carnivore species such as the tiger, leopard and Asiatic Wild Dog, also known as the dhole. Ramesh will lead the S.P.E.C.I.E.S. project in the Western



Image: Ramesh Tharmalingam

Ghats, and explains the importance of preserving carnivores that inhabit this area.

A range of threats are facing these species in the Western Ghats. Habitat loss and the fragmentation of forest areas are considerable, as is the global skin market. "Mainly tigers and leopards are hunted for their skin and for traditional Chinese medicine – they have the highest value on the market," Ramesh explains. A recent report by TRAFFIC, the wildlife trade monitoring network, found that there has been no decline in tiger poaching. Between 2000 and 2015, a total of 801 tiger seizures were reported across 13 tiger range countries, equivalent to at least 1,755 tigers.

The Asiatic wild dog faces a different kind of threat. "The population of this species was once very good, but now the population is going down because of a virus that is being transmitted from domestic dogs to wild ones."

S.P.E.C.I.E.S's work in the Western Ghats will aim to understand how habitat loss impacts these carnivore species and their prey, with the ultimate goal of creating a manageable conservation strategy. Directly linked to this are steps to lessen human-wildlife conflict, another source of species decline.

While the designation of areas as tiger reserves is a positive step, Ramesh points out that lack of connectivity between reserve areas is a problem. "After the declaration of tiger reserves all kinds of human activities, livestock, and hunting or poaching has reduced due to high levels of protection." But now the small size of these reserves, coupled with a lack of forest cover connecting them, bring species into conflict with local people.

As the natural habitat of carnivore species is reduced due to deforestation or agricultural expansion, they look elsewhere for prey. "They sometimes go out of the boundaries of protected reserves and they look for livestock," Ramesh says. "When they kill livestock the local people poison the carcasses and try to kill the predators. We are trying to understand the ecological impacts of this on large carnivores, and also the human perception and attitude towards carnivore conservation."

"Primarily we will be doing population studies to see how the species are distributed, what human factors are causing disturbance, and how large carnivores such as the tiger respond to these disturbances. Our project will try to understand the conflicts between humans and wildlife, and how we can mitigate them." Developing an outreach and educational programme to help mitigate the ensuing conflict is a key element of the S.P.E.C.I.E.S project.

Ramesh has over 14 years' experience of studying carnivores in India and South Africa. In his homeland of India he undertook studies which looked into the effect of human disturbance on large carnivores across Western Ghats. "India is one of the most highly populated countries in the world, so it is important to study how these carnivores are responding to growing levels of human disturbance in various forms, and despite this India holds the largest population of wild tigers in the world." This was the inspiration which drove him into conservation in the first place.

He also undertook research to understand

FEATURE STORY:
The Western Ghats of India

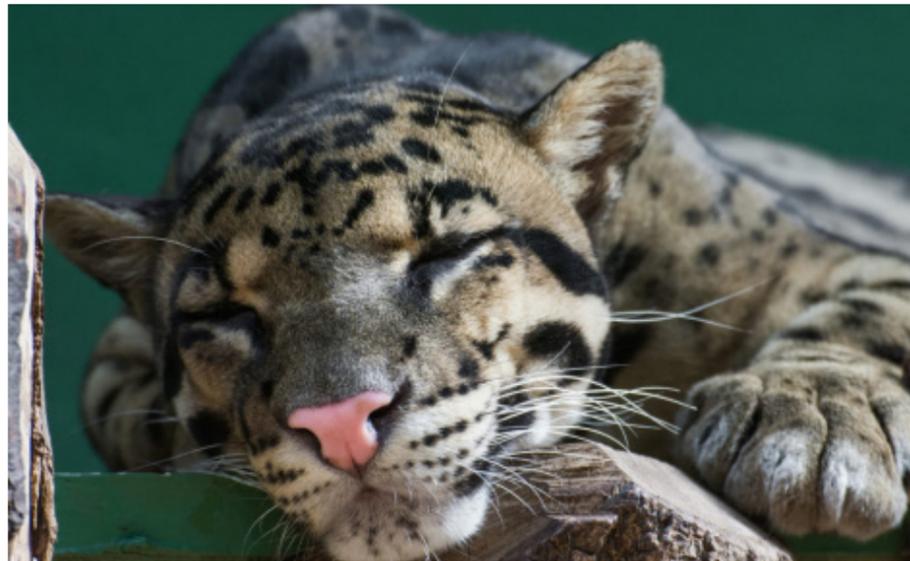
the predator-prey dynamics of carnivores, and how they exist together in the ecosystem. During this study they expected, and found, that large carnivores such as the tiger were preying on large bodied prey such as gaur and sambar while medium sized predators, Resource partitioning in large carnivores of India is largely mediated by activity and spatial use of their principal prey.

This understanding of the way in which ecosystems function is important to developing conservation management strategies, Ramesh states. "Tiger, leopard and dhole are three of the main keystone species in the landscape in Western Ghats, and they are mainly found in undisturbed habitat." Since much of the region is under pressure from fragmentation, there are potentially huge effects occurring within the ecosystems. "When you lose the habitat, indirectly you lose the prey species, when you lose these species it makes huge changes which affect the carnivores as they are very sensitive to ecosystem changes."

"S.P.E.C.I.E.S. aims to encourage conservation in ecologically vulnerable areas where wildlife and local people often come into conflict"

Through increasing existing knowledge of the threats facing the carnivores in the Western Ghats, S.P.E.C.I.E.S. aims to encourage conservation in ecologically vulnerable areas where wildlife and local people often come into conflict. Education and awareness programmes amongst local people who inhabit and live off the land on or nearby conservation areas are an essential step to ensuring that the

Does Taiwan want to see clouded leopards again? *First we need to ask!*



A clouded leopard. Image: Soren Wolf (FlickrCC)

It is not entirely clear when, but some time during the last century the Formosan clouded leopard, as it was known, went extinct in Taiwan. Rumored to be the most beautiful of clouded leopards, recent genetic analyses suggest it was no different from the species that occurred on mainland Asia. Given the high potential for Taiwan to host clouded leopards once again, S.P.E.C.I.E.S. embarked on an expedition to Taiwan to ask: how would local Taiwanese feel about bringing back the clouded leopard?

S.P.E.C.I.E.S. traveled to the Tawu Mountain Nature Reserve, an area suited to hosting both clouded

leopards and their prey. Here, we conducted interviews with the Lukai and Paiwan people to determine how local Taiwanese feel about the potential return of the clouded leopard to the island's mountain forests.

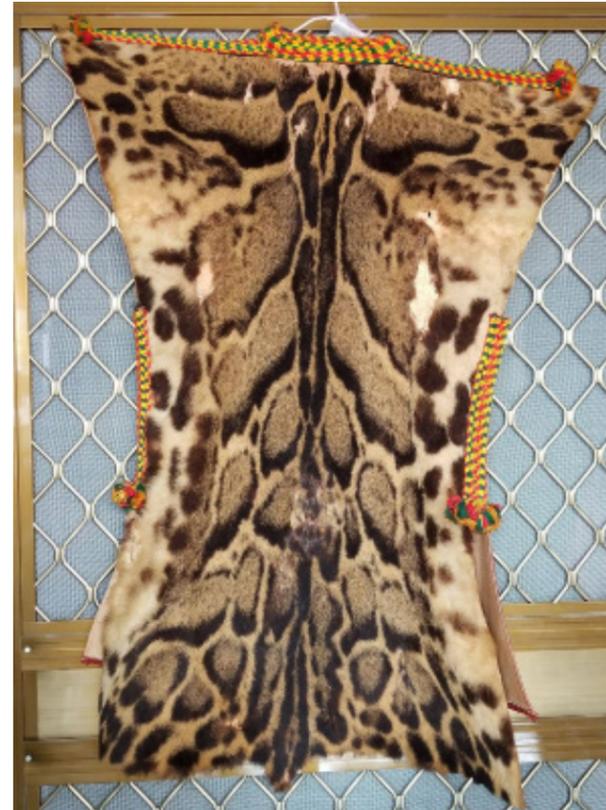
In the Lukai village, we also discovered that the clouded leopard featured prominently in their art and ceremony. A ceremonial clouded leopard skin, for example, has been owned for several generations by the family of a Lukai chief. The clouded leopard clearly holds great importance to people of the Lukai and Paiwan nations.

With this assessment, we have taken the critical first step needed to one day return clouded leopards to Taiwan.



The Rukai village in the Tawu mountains.

Image: Anthony Giordano



(Above) A ceremonial clouded leopard skin owned for several generations by the famil of a Lukai Chief.

(Below) Poster advertising the project in the Tawu Mountain



(Below) Conducting interviews with Lukai and Paiwan people. Images: Anthony Giordano



(Below) Art depicting the importance of clouded leopards to chiefs of the Paiwan Nation.



SPECIES SPOTLIGHT



The Sri Lankan Jackal

Sri Lankan Jackal
Image: Thimindu

The jackal is a cunning and resourceful species found all over the world, and the Sri Lankan Jackal (*Canis aureus naria*) is no exception. The Sri Lankan Jackal is one of thirteen subspecies of the Golden Jackal, and as you can guess by its name, this jackal lives in Sri Lanka and southern parts of India. The jackal is slightly smaller than a wolf, with smaller legs, body, and tail overall. Its back is covered with black and white fur with a brown background. This beautiful canine is mysterious, curious, and agile.

However, don't be fooled by its good looks. This jackal is a skilled hunter and scavenger, carnivore and herbivore. As a pack animal, they can organize and take down large prey. The pack also waits for other predators to make a kill, fill up, and then scavenge the rest of the food. The jackal has a wide range diet that consists of small animals including rodents, birds, mice, young gazelles, reptiles, and also fruits. This diet allows the jackal to thrive in varying niches that include forest, grasslands, semi-urban, rural, and arid areas.

Since the jackal has adapted and thrived in different habitats, it is currently listed as "least concern". However, there are still concerning threats impacting the Sri Lankan Jackal. Human overpopulation in India constantly pressures wildlife through habitat loss, industrialization, agricultural and livestock expansion. In addition, Sri Lankan locals fear that the jackals will transmit rabies and other diseases to themselves and their domesticated dogs. Another threat is the trade of jackal's pelts and tails, but the Wildlife Protection Act hopes to minimize this. Conservation efforts mainly target educating communities on how to coexist with these intelligent canines and decrease hostile actions towards them.

As urban development increases in Sri Lanka, the rich biological community continues to be threatened. The



Image: Shanaka Kalubowila

S.P.E.C.I.E.S. project hopes to understand the carnivores in Sri Lanka that are threatened or potentially threatened through surveying the current status and future of carnivore species. Learn more about our project in Sri Lanka [here](#).

Keeping up with S.P.E.C.I.E.S.



Asunción, Paraguay - Nov./Dec. '17
S.P.E.C.I.E.S.'s Chaco Jaguar Conservation Project was a proud sponsor of the III Paraguayan Workshop on Herpetology and mastozoology this year. Members of the team also presented on the recent update to the IUCN Red List for Paraguay.

New York, NY - Oct. '17
SPECIES founder and director Anthony Giordano and Communication and Outreach Manager Stefanie Siller met with future conservation leaders to discuss context-dependent strategies for human-wildlife conflict at this year's Student Conference on Conservation Science in NY.



Luque, Paraguay - Oct. '17
At this year's Green Expo 2017, Diego Gustavo Giménez, our Chief Program Officer for the Chaco Jaguar Project in Paraguay, shared his passion for conservation of the jaguarete with students, teachers, communicators, colleagues and friends.

Jackson Hole, Wyoming - Sept. '17
At the Jackson Hole Wildlife Film Festival in Wyoming, SPECIES founder and director Anthony Giordano brought his knowledge and expertise to the Cats in the Shadows panel, highlighting stories from the world of small and rare cat conservation and research.



S.P.E.C.I.E.S. in the news

A Little Cat Goes A Long Way

Jaguarundis have the second-greatest north-south distribution of any wild cat in the Americas. They have historically been known to range from Argentina all the way to Arizona. However, as no one has ever photographed a wild jaguarundi in Arizona, the question remains – are they actually there?

"The jaguarundi, for me, represents a big mystery," says Giordano. "In some areas, they're more like ghosts." Although it has been assumed that they are common and widespread in certain areas, basic information on where they live is incomplete. In Arizona, for instance, jaguarundis are frequently identified, but no evidence has been shown of their existence in the state.

Read more about the hunt for the jaguarundi in Arizona, featuring S.P.E.C.I.E.S. founder and director Anthony Giordano, [here](#).



S.P.E.C.I.E.S. in the news

Cats of the Canopy

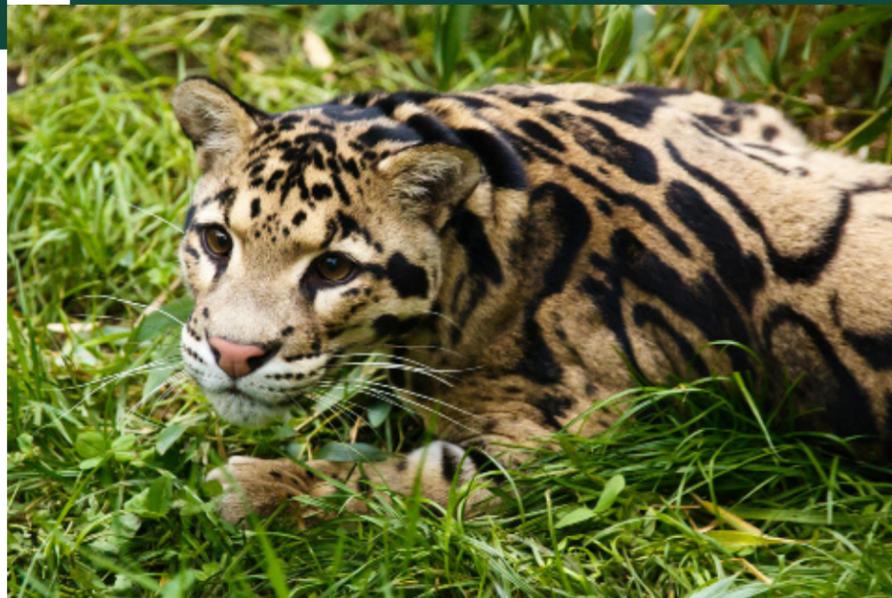
As the smallest of the big cats, clouded leopards have fallen through the cracks of mainstream conservation efforts. Because they have been overshadowed by other charismatic Asian megafauna, very little is known about their status on local or even regional scales. However, it is precisely their unique ecological and evolutionary characteristics that make clouded leopards a potential flagship species.

S.P.E.C.I.E.S. is working to not only collect important baseline information on the 2 species of clouded leopards, but also to inform the general public about the clouded leopard. In particular, S.P.E.C.I.E.S. aims to publicize the major threat facing clouded leopards today: oil palm displacement of natural habitats.

To learn more about the clouded leopard and S.P.E.C.I.E.S. efforts to conserve this unique species, read the latest article at Purr and Roar [here](#).



A Clouded Future: Asia's enigmatic clouded leopard threatened by palm oil.



The clouded leopard is so elusive that we didn't know there were two species of this cat until 2006. Its elusiveness has made conservation efforts very difficult. Although both species are listed as "Vulnerable" by the IUCN, we know very little about their behavior or ecology. Because of this, they have been largely overlooked by both conservationists and the public.

It is known, however, that palm oil production is greatly affecting the clouded leopard. The clouded leopard's habitat lies within 3 of the world's top palm oil producing nations. Palm oil production is destroying the natural habitat of this small big cat, and it is difficult to know how the cat will adapt to these huge changes. Along with palm oil, poaching, trapping, and a decline in prey have also negatively affected the clouded leopard.

Read more about the different challenges, solutions, and future predictions that palm oil production will have on the clouded leopard in Mongabay's recent article, featuring S.P.E.C.I.E.S. director and founder Anthony Giordano, [here](#).

Can Taiwan's Formosan clouded leopard claw its way back from extinction?



Today, 2 species of clouded leopard roam throughout Asia: *Neofelis nebulosa* and *Neofelis diardi*. These species are rarely glimpsed in the wild, and are now at risk of extinction. Indeed, only 4 years ago, a third type of clouded leopard, *Neofelis nebulosa brachyura* (the Formosan clouded leopard), was declared extinct from its home in Taiwan. However, questions remain as to whether the Formosan clouded leopard ever existed at all.

No clouded leopard has been seen in Taiwan for decades. Still, most biologists believe the Formosan clouded leopard existed as a subspecies or subpopulation of *N. nebulosa*.

Now, conservationists hope to return the clouded leopard to the island of Taiwan. S.P.E.C.I.E.S. is working to determine how locals would feel about this reintroduction.

To learn more about this unusual extinction story, read Post Magazine's article [here](#).

CONNECT WITH US!



S.P.E.C.I.E.S.

“To ensure the viability, diversity, and integrity of the world's threatened, endangered, and declining native carnivore populations and communities, mitigate threats to their future survival, and restore their part to the healthy functioning of the planet's ecosystems”