

PR AWARE

CONSERVATION & PHOTOGRAPHY
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THE SERVAL
BY PETER HUDSON

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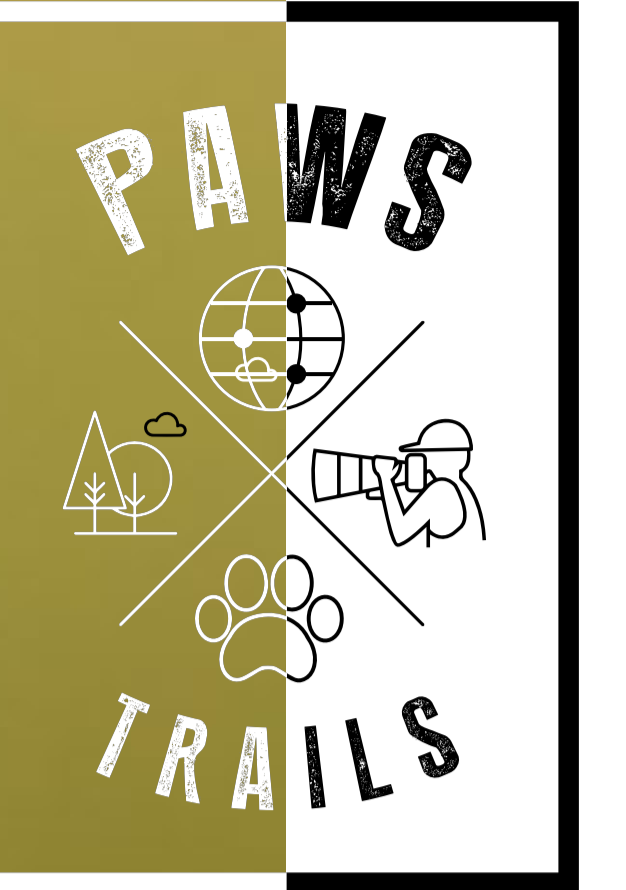
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Content Director: Nisha Purushothaman, **Director Photography:** Hermis Haridas, **Design desk :** Nithya Purushothaman
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Hermis Haridas



Raghul Patteri
Editor

If you live in the shadow of famous big brothers, there is every chance that you will be overlooked in favor of the more illustrious siblings. That is how the Serval might be feeling in Africa, in the company of the mighty big cats which co-habit the space. This small feline is an intriguing animal and something that you must lookout for on the African Savannah, beyond the lions, cheetahs and leopards.

In this edition Dr. Peter Hudson explores the fascinating life, biology and conservation status of the Serval. When faced with major conservation challenges for flagship species in an ecosystem, it is easy to take for granted those animals which look to be doing well in protected areas. With shy and nocturnal species this is because the conservation status is determined from knowledge within protected areas, but often, little is known about the status of a species outside protected areas.

Today we live in dangerous times – probably for the first time in decades humans are facing an unprecedented existential crisis. The Covid-19 pandemic is threatening our very survival, but how many of us dwelt deeply into the cause of the crisis. How many are aware that the best scientific evidence points to human activities, the un-quantifiable destruction of habitat and the consumption of wildlife, as the cause of the crisis. To know more, please visit the NAT CHAT channel on YouTube and listen to Dr. Peter Hudson's talk on the subject.

Hence, it is important now that we do not take any animal for granted and pay attention to conservation of all beings, however insignificant they might appear. The Serval's role in controlling rodent populations in the African savannah is well known. Likewise, each species has its role to play in an ecosystem, some known to us, some unknown.

PT Aware brings you interesting facts about different species and conservation issues from around the world. We associate with brilliant scientific minds and gifted photographers to bring you the best of both worlds, the latest scientific perspective, and spectacular photographs. Thanks to all the wonderful photographers who shared their Serval cat images for this edition. Our next edition will focus on the Snow leopard, so prepare to upload your photographs of these elusive cats. Selected photographs will be published to portray the story of these mysterious animals.

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Photo by: Peter Hudson

EDITOR'S DEN



FOUNDERS' NOTE

We know little about the ecology of many African species including many of the charismatic species like the Serval. They are not easy to see in the long grass, given their size, camouflage and the way they move with stealth. But, once sighted they can give you memorable moments and some truly pleasing photographs. The agility of these beasts is amazing, and their hunts are fascinating. So, when you are next on an African safari, be sure to look out for these wonderful creatures.

In recent weeks, Paws Trails has launched a series of short video talks called NAT Chat, presented by luminaries in the field of science, conservation, photography and more. These are available on Youtube.com when you search for "NAT Institute". Through this new initiative we will reach viewers around the world with informative and interesting talks on various topics. Follow us on YouTube or through various Paws Trails' social media handles. We have a couple of special videos to accompany this magazine. First, a detailed description about the fun and challenges of photographing Servals in the wild presented by Nisha Purushothaman and then a short video with some of the photographs from this magazine introduced by Peter Hudson.

We thank all the gifted photographers in our Paws Trails photo-community who contributed wonderful photographs to the pages of this magazine. Congratulations to all those who were selected. The worldwide Paws Trails community helps us to harness the power of community photography and use it as an effective tool to bring the messages of conservation and peaceful co-existence with that natural world. Thanks again for all the wonderful Serval cat images, and please continue your great support of this magazine and our other activities to help make people aware of the beauty and biology of these fascinating animals. .

During these difficult times, the Paws Trails team prays for the safety of our readers worldwide and ask you to join us in the fight to stop the destruction of the natural world and the trade and consumption of wildlife animals like bats and pangolins. We must ensure a pandemic like this never happens and we must work together for a better planet.

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Hermis Haridas & Nisha Purushothaman

Founders - Paws Trails Explorers

THE STORY

The Serval: The highly adapted rodent killing machine

By Peter Hudson,
Conservation Director,
Paws Trails



Canon
IMAGING PARTNER

Peter Hudson is a scientist, photographer and conservationist. He undertook his first scientific expedition to Africa at the age of 21 and has been a regular visitor ever since. Passionate about nature, he manages his own 36-hectare nature reserve in Pennsylvania which is home to bears, bobcats and other animals.

In his professional career, Peter is the Willaman Professor of Biology at Penn State University. The focus of his research has been the infectious diseases of wildlife and in particular how new diseases emerge. He has been running scientific studies on the wolves in Yellowstone, tortoises in the Mojave Desert and bighorn sheep in Idaho. He is currently involved in a major project in Australia investigating the viruses associated with bats.

Peter established a new global health institute at Penn State that seeks to develop the concept of One Health, whereby the future health of humans is dependent on that of the environment, livestock management and the conservation of wildlife. He is an adjunct Professor at The Nelson Mandela African Institute of Science and Technology based in Arusha, Tanzania and a Fellow of the Royal Society.

peterhudsonphotos.com

[instagram.com/peter_hudson018](https://www.instagram.com/peter_hudson018)





When you first explore the wild areas of Africa, your mind naturally makes you think about the large charismatic species and many of us think about the beautiful big cats such as the lion, leopard and cheetah. Seeing and photographing lions is not difficult when you visit one of the famous big reserves, although seeing lions and leopards doing something special and exciting like killing prey or courting is not easy, since much of the stalking and killing action takes place at night or during the twilight hours. Far too often I have arrived soon after dawn at a kill that lions have made and missed the actual hunt. Cheetahs, on the other hand, are diurnal and if you go to a place where there are cheetahs in abundance, get information about when they last fed, and sit quietly and watch at a good distance, you should see a hunt and, with some good fortune, a kill. It is a spectacular sight and many of us are keen to go back and see more and photograph other cats on the African plains.

One of the great things about Africa is the wonderful diversity of cats and when people ask what other cats there are to see, my mind goes to the “Seven forgotten felines of Africa”. Most of these are nocturnal and not easy to see during daylight hours, but the most spectacular are the three closely related caracal species. If you are in East Africa you can forget about seeing the rare golden cat which inhabits the Congo basin and so you must focus

on the caracal or its close relative, the serval. My own experience is that if you want to see caracal then you should get prior knowledge about a known territory, and ideally a female that is tolerant of people and then spend quiet time searching carefully until you get a sighting. For years, there was a caracal territory alongside the descent road into the Ngorongoro crater and I have seen it there catch and kill spring hares from a vehicle on the road.

The rodent killing machine: The Serval

Unlike the caracal and the other cat species, the serval is not considered rare or threatened, but you need to be in the right habitat and search slowly and carefully. Looking in places where servals have been seen recently is good. The older females have smaller territories and if they have bred successfully, retain the territory from year to year, then these are the best individuals to find and photograph. One of the things about cats, and indeed many other animals, is that a small proportion of the females produce the majority of the young in the next generation, so if you can find one of these super-mums you will probably find her again and you could watch as she hunts and feeds her young. They invariably inhabit long grass close to permanent water areas, and they use traditional paths and routes to hunt. In the Serengeti, they hunt a great deal during the daylight hours but in agricultural land they are



Photo by: Hermis Haridas







plains of Tanzania you can find them in the nearby woodlands, close to wetlands. Even in good habitat, the males have big territories of 40km² while the females will have much smaller territories of about 7km² and typically these territories exclude all adults of the same sex.

They are rodent-killing machines and highly adapted at listening for the rustle of a mouse and then using their remarkably long legs to launch themselves high into the air – jumping as high as 2 meters while travelling forward distances of more than 3 meters. The pounce aims to drop the serval straight onto the mouse, either stunning it or giving a good purchase while the serval eats it. Getting photographs of a hunting Serval in mid-air or even swishing through the long grass carrying one of their babies to a new den site are the ultimate photos most of us seek.

Conservation: what is happening to serval outside protected areas?

The IUCN record these species as one of “least concern” since they are widely recorded across east and southern Africa, but we really don’t know much about the cat’s biology outside the protected areas. We do know that they are having a really tough time in North Africa where they have probably been wiped out in Algeria, reintroduced into Tunisia and in a very bad way in Morocco. Without question the biggest threat to the serval is the drainage and loss of wetland habitats in Africa

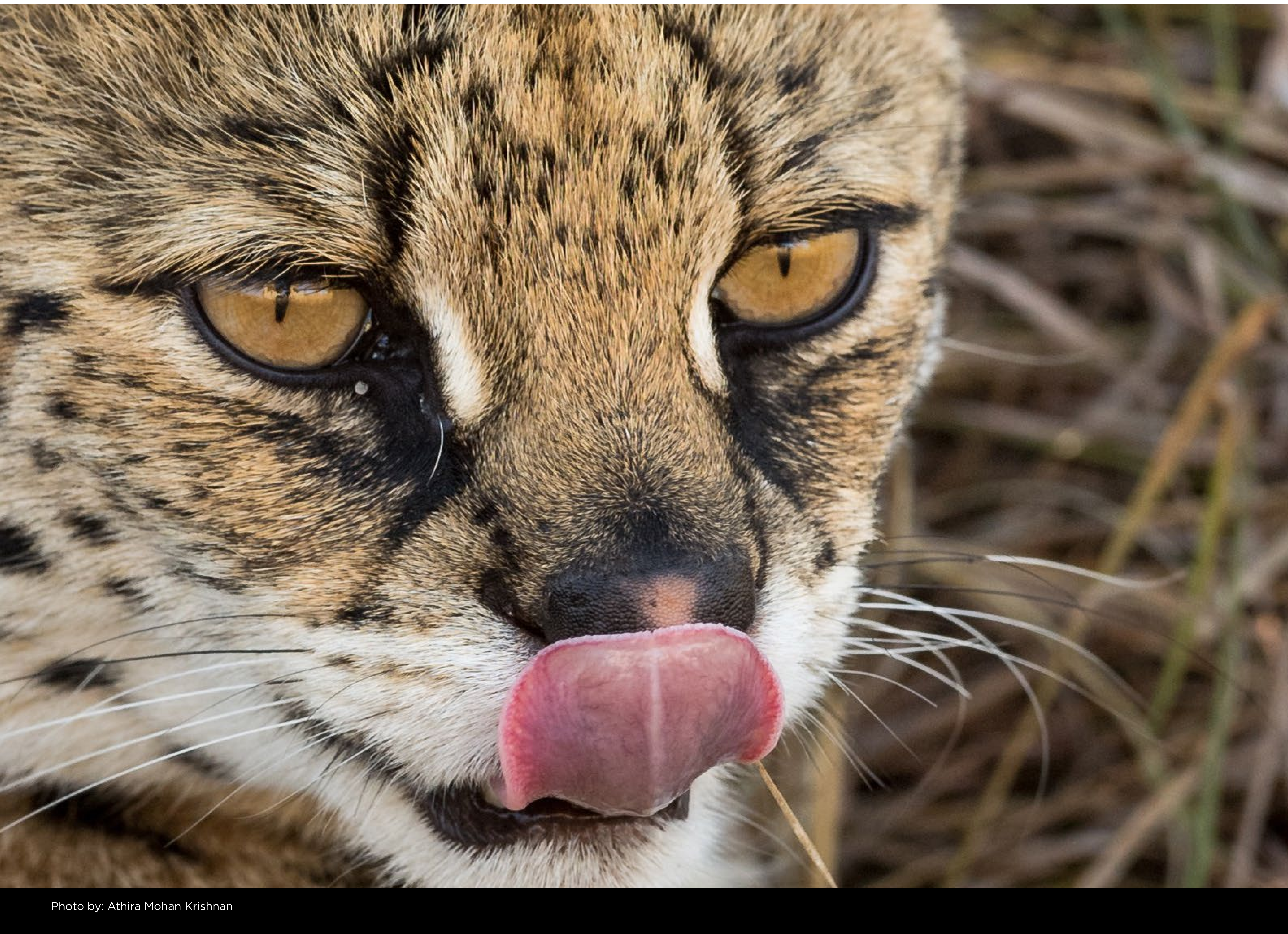


Photo by: Athira Mohan Krishnan

as urban areas increase and every square meter of land gets turned into food producing areas. Africa has lost at least 30% of its wetlands since 1970 and this coupled with agricultural intensification and the loss of long grass habitat has effectively removed the serval habitat from large areas.

Without question, changes in land use and alteration in habitat is one of the biggest drivers of species extinction outside protected areas. Species like the serval inhabit patches of wetland habitat close to permanent water bodies where there are good densities of rodents. Across the huge expanse of the Serengeti plain the serval will live in these small habitat patches and when they produce young, they must disperse from one patch to another. Indeed these stepping-stones of habitat are important outside the protected areas as they help to link the large fragmented populations together and keep the population viable against extreme events such as dry years with little rodents. In effect the agricultural areas around protected areas act as buffer zones and the future of the animals very much depend on a serval population sustained in these areas.

The servals that live outside the protected areas get some benefit from being away from the larger carnivores. In many ecosystems, the larger predators will hunt down and kill the smaller predators, so for



Photo by: Shyam Bhagra



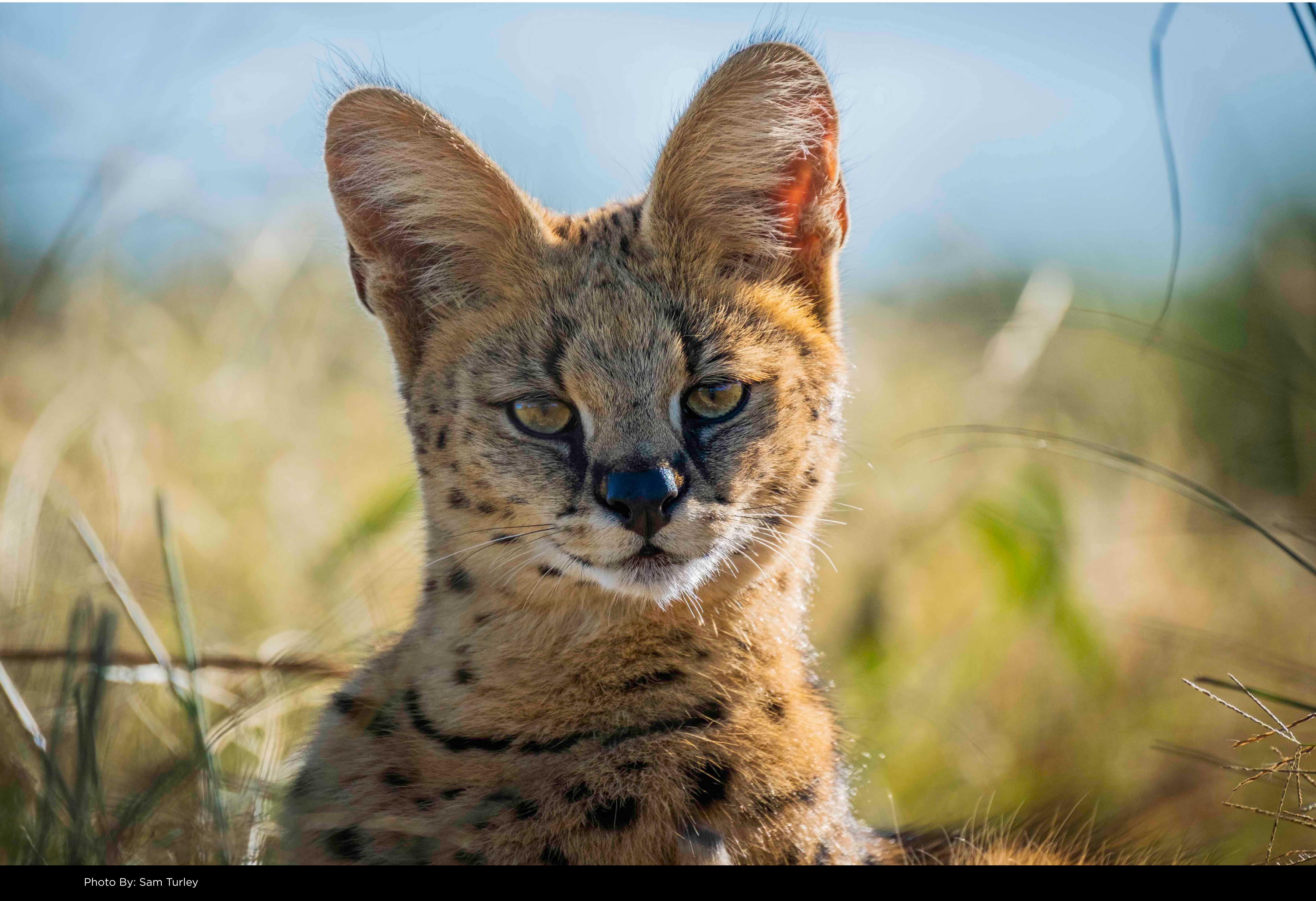


Photo By: Sam Turley

example it is not unusual to see the wolves in Yellowstone chase and kill a coyote or see lions in the Serengeti kill the baby cheetah. In a similar way, leopards have been seen killing servals in Africa, so the servals inhabiting agricultural land will get protection from the big predators. This is known in science as “meso-predator release” and is basically an increase in the abundance and distribution of the smaller carnivores when the apex predators are absent. Inside the protected areas the servals battle against the big carnivores and outside they battle against the fragmentation of wetland habitat.

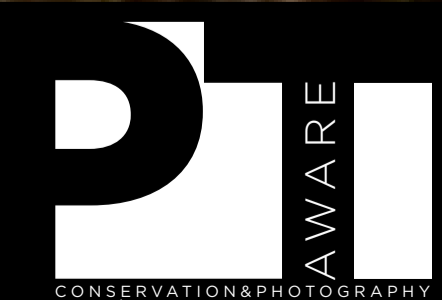
The issue facing the serval is whether it has sufficient habitat outside the protected areas to keep the population going in the larger countryside. Our concern is that the wetland habitat and their associated rodents are being lost at a fast rate and this could jeopardize the survival of the serval. There is a clear need to have a closer look at the status of the serval and how well it is surviving in the African countryside outside protected areas and then review its IUCN status.










 Photo by: Harman Singh Heer



 Photo by: Shazmeen











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Photo by: Hermis Haridas

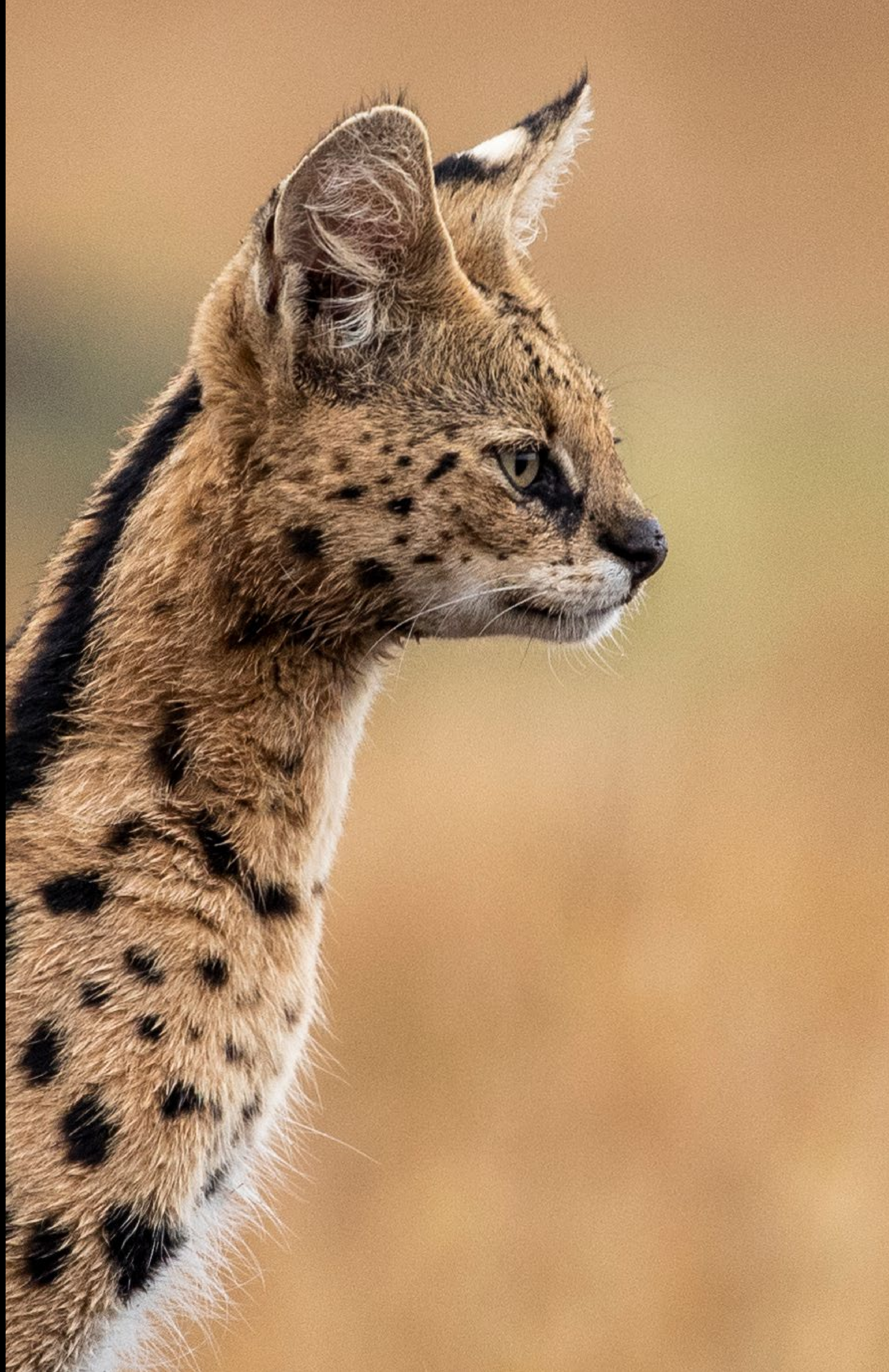


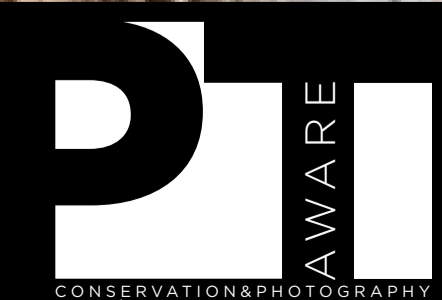
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 Photo by: Harman Singh Heer



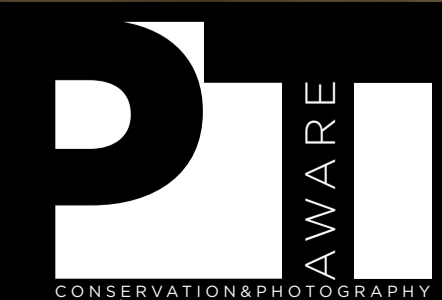
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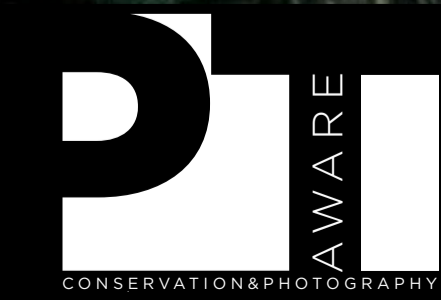






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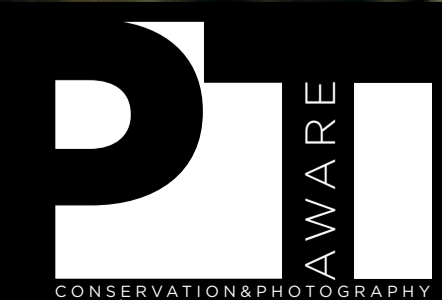


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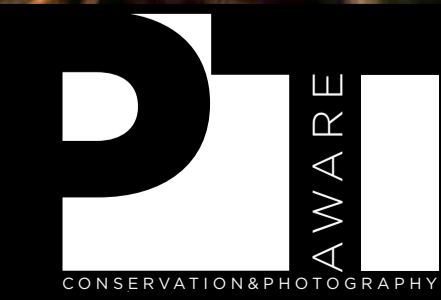






 Photo by: Hermis Haridas



 Photo by: Sam Turley









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UPCOMING EDITION
SNOW LEOPARD



Photo by: Shazmeen

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