



DAVID YARROW INTRODUCES THE NEW NIKON FULL FRAME D850. To launch the new Nikon D850, master wildlife photographer David Yarrow was given the creative freedom to capture the image of his lifetime, shot on the new D850. Thanks to the powerful combination of the 45.7MP FX format back-side illuminated CMOS sensor and the speed of 9*fps shooting, he could tell a story like never before. With ISO 64 to 25600, 153-point AF, 8K time-lapse** and full frame 4K UHD video, now you too can capture your masterpiece. David is passionate about wildlife conservation, and is the affiliated photographer of the Tusk Trust Foundation. To find out more about the D850, and

* Requires the optional MB-D18 Multi-Power Battery Pack and EN-EL-18a/b battery.

** Requires Interval Timer settings and 3rd party software.

David's story, follow Nikon on Facebook and YouTube.







YOUAREINVITED

We look forward to seeing you at the preview of "The Gorilla Trails", a wildlife photography exhibition showcasing the magical frames of **Peter Hudson** from **Rwanda**.

THURSDAY, FEB 8TH 7:30 PM

Exhibition opens till 11th February
Timing: Feb 8th: 7:30pm-9:30pm // Feb 9th to 11th: 10am-8pm

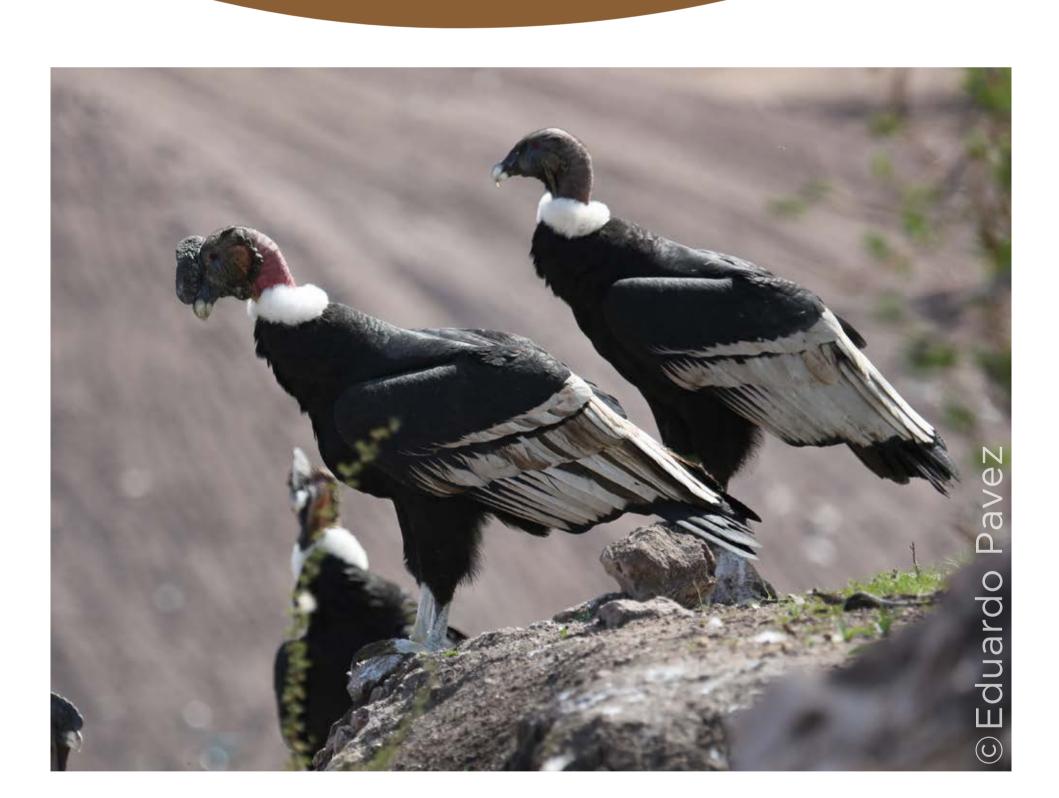


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Hank Tyler Editor

PT Explorers is expanding our coverage of global environments, ecosystems and habitats. Earth supports a wide variety of spectacular. We are pleased to have a number of articles about South America in this volume.

Amrita Das's detailed two part story on protected area in India illustrates how this densely populated country has managed to set aside vital ecological habitat for its wildlife, and especially endangered species.

Indian artist Mahesh Jangam is one of India's leading wildlife artists. Mahesh focuses on tiger because of its magnificent features, and its need for protection. I had the pleasure of becoming friends with Mahesh in 2015 when we both participated in "Art for Nature-Nepal" in 2015 in Chitwan National Park.

Priscailla Esclarski, a Brazilian ornithologist and PhD student, describes the importance of Brazil's Atlantic Forest that is the home and habitat for many rare and endangered species. This important ecosystem has been reduced to scattered fragments of forest habitat along much of Brazil's coastline.

Argentinian wildlife artist Heidi Lots tells her story of the Andean Condor and trekking in the Andes to see these magnificent vultures. This fabulous vulture of the Andes is constantly under threat from habitat loss and human predation. I was thrilled to see Andean Condors during several visits to Ecuador.

Estela Canaveira's article on Machu Picchu in Peru discuss the importance of protecting cultural features. Ecotourism is often a major threat to many of the world's cultural features.

Magnificant photography is a vital tool in documenting and promoting the conservation of special habitats and endangered species. Many wildlife photographers who participate in ecotourism activities at some of the earth's rarest and most special habitats financially support existing national parks, sanctuaries, wildlife reserves, and cultural features





FOUNDERS' NOTE

Hurray!!! The wolves are back in Belgium, the one mainland European country they were still absent. Decades of persecution had resulted in keeping the wolf away for the last 100 years. Now to put that into perspective imagine being driven out of your home for 100 years. Think about all the political and humanitarian crises across the world precipitated by ethnic cleansing and religious or sectarian revolts. In natural terms, that is the same thing that happened to the wolves.

Driven out of the majority of Europe, the comeback is definitely an indicator of the improved protection accorded to wild areas and animals. But the return has not been without its set of problems. Wolves have returned to live in close proximity to humans who are no longer used to them. Alarmed by the growing wolf populations and incidents of livestock raids, some countries are already mulling over limited culling to keep the numbers in check. Funny that nobody considers culling to keep the booming human population in check, but such are the facts of life!

Demonised and persecuted throughout history, the wolf does not seem to have returned to a bright future. The only protection they have are those accorded by law and it is high time they were accorded protection by the well wishes of people, accepting them as co-beings.

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Hermis Haridas & Nisha Purushothaman

Founders - PT Explorers







Kalyan is a wildlife photographer, filmmaker, naturalist and explorer dedicated to documenting wildlife and the environmental issues that define our times. He freelances for the world's leading magazines, environmental NGOs and Geo television channels like Nat and BBC for whom he has worked on many blue-chip wildlife series. Kalyan is the co-founder of India Nature Watch, an online platform for upcoming wildlife photographers and of Nature InFocus, Asia's largest nature photography festival.

He combines an artist's eye with a journalists curiosity and sense of storytelling in his works.

Collaborating with Scientists, conservationists and policy makers and sharing his knowledge of photography and wildlife through workshops and seminars are important aspects of his work.

To view more of his works visit:

kalyanvarma.net/
facebook.com/KalyanVarmaPhoto
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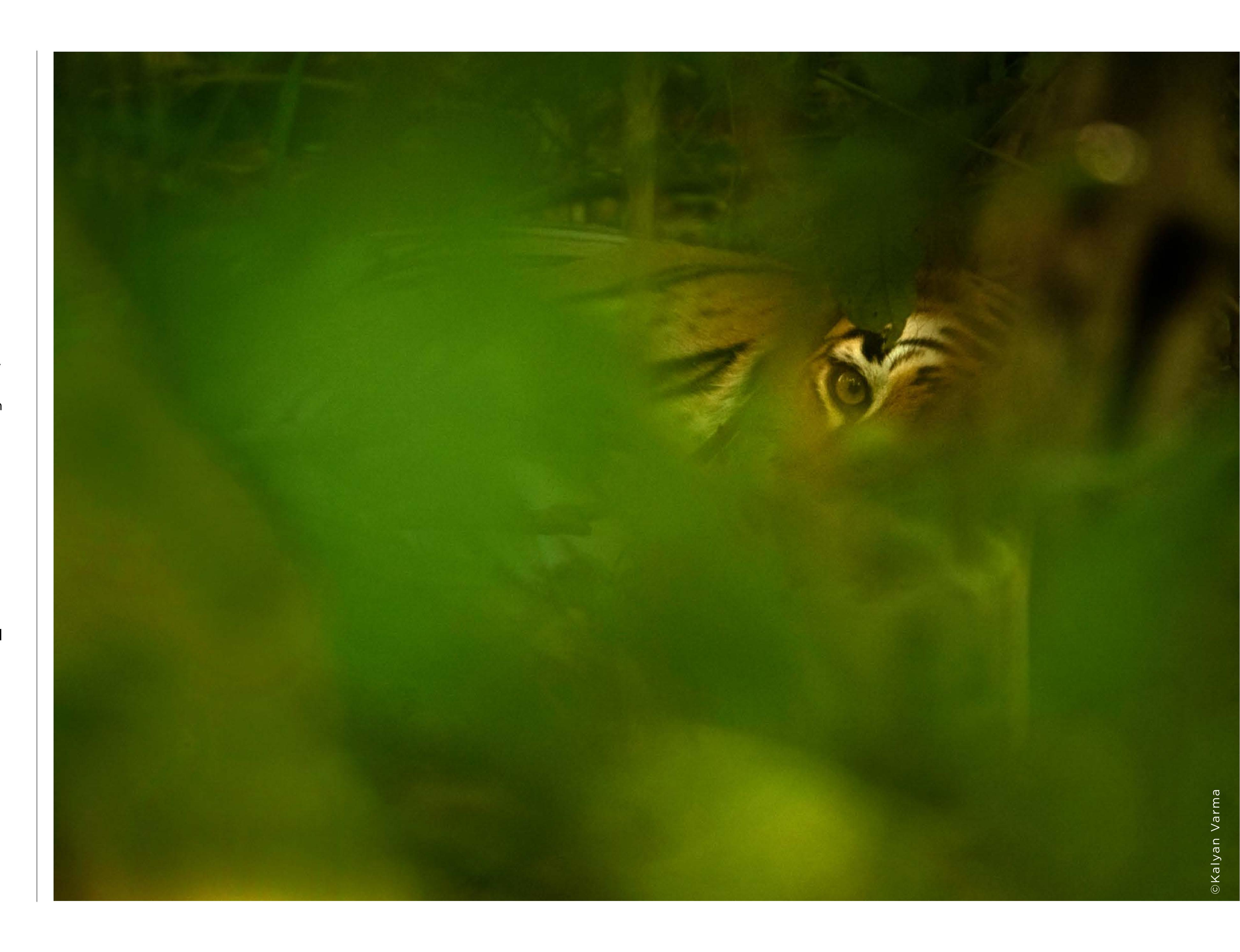


Tell us your story so far - from an engineering student to a corporate career to the metamorphosis to a wildlife photographer and nature enthusiast...

It has been quite a journey and I always enjoyed whatever I was doing. Sure, I was in a corporate setup, but I really enjoyed my work there and was working because I was just doing what I loved and the company encouraged that. I always loved wildlife and started spending more and more time in the forests. The shift actually started out as a sabbatical, to do something totally different for few months and then get back to my job. But that was more than 13 years ago and I never went back.

You have worked in the Kalakkad Mundanthurai forests and written about the Western Ghats. It is a difficult proposition to repetitively go back to the wilderness and stay there for months at a time. What keeps bringing you back to the wilds? You have worked extensively in the Western Ghats, what is special about these parts that has made it something of a muse for you?

Everything about it. We are blessed to be in Bangalore. Just few hours' drive westwards and we are in one of the best biodiverse places on the planet and we still know so little about it. Imagine the fact that you could just bump into a new species of frog one day or the fact that in a two-meter radius around you, there could be few thousand different creatures.







Being in India, it is important to see how much these Ghats are important to people and our lives, livelihoods and water security in south India. So I can never get enough of the Western Ghats.

In your website your photographs of Maasai Mara are in Black & White. Can you please describe about this? What is the lure of monochrome in Wildlife Photography?

Setting foot in Africa was an amazing experience. After years of reading about the place and watching many photos, it is hard not to be overwhelmed when you see the plains of Africa. Somehow the sky feels bigger there than anywhere else in the world. I just wanted to convert the aesthetics of the place and somehow thought it might make sense to do it in black and white. Also we are used to seeing so many colour photos from there and I wanted to do something different. Something that could stand out.

Could you reflect back on the mistakes made while you were taking baby steps as a wildlife photographer?

I do not think I have made any mistakes in my journey really. I just wish I had started getting into the wild much earlier.

What is that one thought, one objective that is the priority in your mind when you set out for a new project?

For me in photography and filmmaking, the central story is the main objective. With the natural world, it is very hard to go out with a pre-defined story since you never know what you get, but the objective is to build on things that you see. In the crowded photography world that we live in, how can one make an image that will stand out? Every species and habitat in the world has been photographed and filmed. So when I go out, I try to tell the story of the animal or a place with a new perspective or tell the different story of the same animal.

Please shed some light on your latest project 'Nature without Borders' and why is it important to you?

I think the idea of long-form visual journalism has finally come to its age. When we spend time on an issue, usually we spend a lot of time - talking to people, researching, photographing and discovering. Normally most often, people go through the process and come back and report the findings in the form of an article. With people, we tried to take the reader as part of the discovery process... to learn and understand issues as we learn ourselves and I think in this way people can really understand the intricate and delicate sides of environment issues.

How thrilling is night photography in Western Ghats?

Night opens up a whole new family of wildlife that are almost impossible to see during the day. Since we cannot photograph in most of the national parks at night, private estates in the Western Ghats offer an amazing opportunity to see and photograph this nocturnal life. Night photography has its challenges too as it is almost impossible to photograph



without a flash or flashlight and usually this disturbs the animals or bird. So we really have to be responsible while shooting nocturnal life.

Your future goals/assignments and one place in the world that is still on your to-do list?

There is so much to do in India itself, but I would like to explore both India and abroad. Every species out there has been photographed or filmed, so the only way we can create wow is to show the place or animal in a different way. I really hope to push my skills to do exactly that and tell deeper stories about nature. I have barely covered India and have spent little time in Africa and Asia. I would really love to spend some time in South America in the future.

How can you as a photographer help in the protection of wildlife and conservation?

I want my work to be a part of the conversation in environment, social issues, and to be engaged with the world on a deeply serious level. What I want is to create a discussion about what is happening around the world and to provoke some debate with these pictures. I don't want people to look at them and appreciate the light and the equipment. I want them to look inside and see what the pictures represent, and the kind of issues that I photograph.

So yes, photography is not just about taking pretty photographs, but is about a medium to communicate. And without environment in the state that it is in, we will need more and more nature

photographers to come in and highlight both the good and the bad, so that we can actually protect these forests.

For Kalyan, what makes a Best Wildlife Picture?

It is hard to say. I really try to showcase the unique character of the animal or the place. Sometimes it is even more important to show the unique individual and what about it that makes him/her special. Like I have said, we live in a very crowded world in terms of photos we consume. So even if I can make five images that stand out in the crowd in a year, that is good enough for me.

Can you share about your work experience with BBC and National Geographic channel

I got inspired to pursue wildlife photography after watching countless hours of nature programs, mostly hosted by the amazing David Attenborough. While watching, I always thought, it would be amazing to be part of the filming team. Thankfully eight years ago, that dream came true when BBC asked me to work for them and since then I have worked on many blue-chip programs for both BBC and National Geographic.

Working with them has been an amazing ride. Yes, it is a long process. Typically for one hour of final film, it is many months of paper work, background setup and many months of time in the field and finally few more months in the editing room. I mostly spend time in the field and the waiting game can really break you.





But for me, that's the amazing part. Not knowing what you will get and being able to go out with an open mind.

What are the everyday difficulties faced by a wildlife photographer? How do you overcome them?

A lot of my friends make fun of me saying I am on holiday all through the year. Sure, I get paid to go out and shoot wildlife, which most others need to pay to see. But every field has its pitfalls. Most people do not realise that being a wildlife photographer and filmmaker is quite hard and it takes a lot of toll on your personal life. You are not there for your friends and family and miss out on all the important events in life. Heck, its every hard to make a relationship work and if you look around, most wildlife filmmakers are single as it is really hard to make anything work. This I think is the price you pay and sometimes you envy the person who can go 9-5 to office and shut off and spend quite time in the evening with family.

You've travelled to many exotic destinations. Are there any regions in the subcontinent that has particularly stayed with you?

For me it is not a single place, but I go

by the habitats. Deserts excite me as much as rainforests and the same goes to oceans or mountains. I think each of these places have something unique and it is hard to compare one against the other.

Tell us a bit about your most recent series of BBC - the Big cats

We started this series two years ago and we really wanted to showcase cats in a way never seen before and also focus on the lesser known cats. For this series, I have shot the Clouded Leopard, Tigers in Sunderbans and Leopards in Mumbai. Very few people have seen the Clouded Leopard, so it was a dream to go film that species. I was lucky since there was one handy, which was released back into the wild and it was used to people. For tigers, we wanted to showcase them in a new habitat. All of us are used to seeing tigers in Ranthambore and Bandhavadh. So we attempted to film them in the Sunderbans. It was a very challenging shoot and after spending 600 hours on the boat, we got to see a tiger for an hour. But at the end, we really managed to crack it and the series has been a grand success.





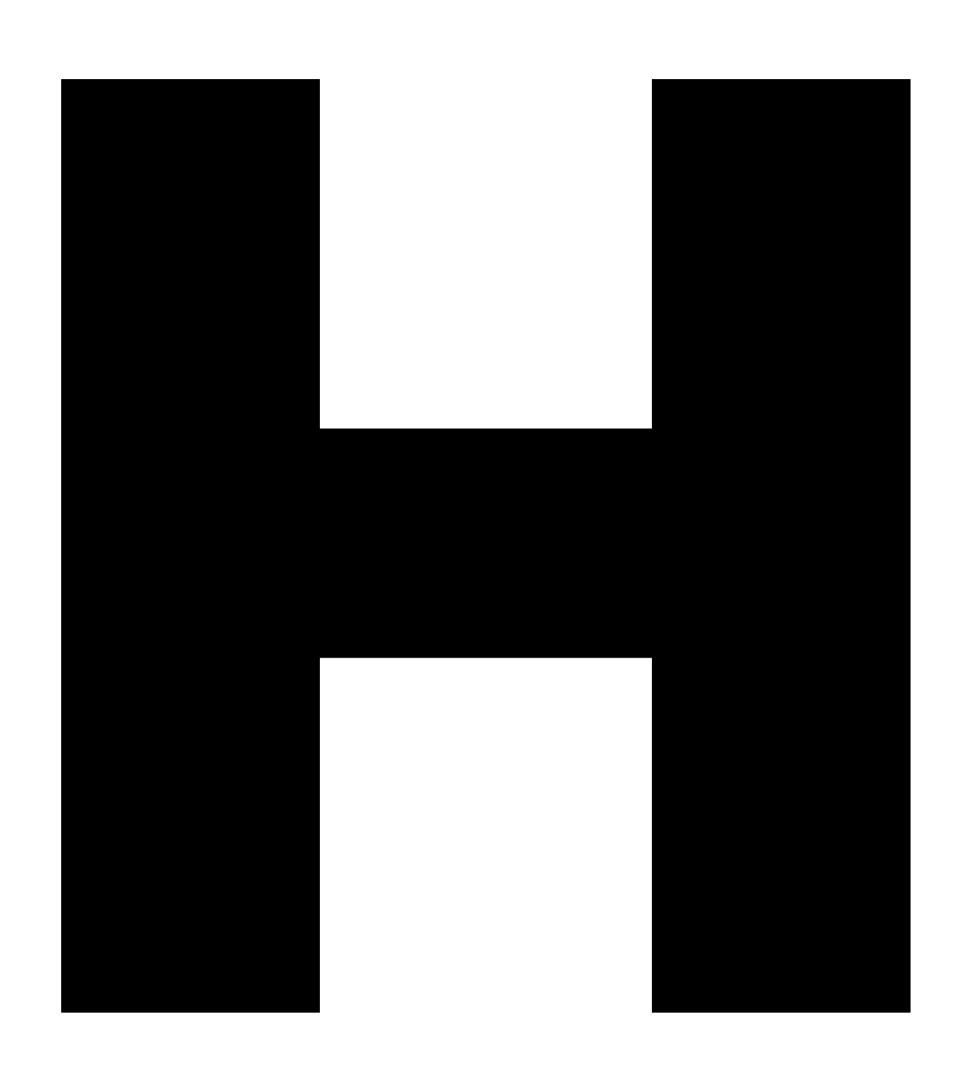
SPECIES

Me and one of the contraction of

By Heidi Lots

Images By Eduardo Pavez





Heidi Lots was born 1980 in Argentina. She is living since 2015 in Germany, dedicated to paint and help preserve Argentinian wild birds.

She painted the watercolour of the Condor in this article.

www. Aveschile.cl





The enchanted air I breathe in the Andes has made me come back again and again, to explore them at different points. This mountain range is impressive. Its backbone goes from Venezuela to Tierra del Fuego, a long way of 7,200 km, touching the sky at its highest point, with the Mount Aconcagua, at 6,900 meters above sea level. The clouds hide active volcanoes, the sun invades the high

plateau and a breeze travels its dense jungles on the slopes caressing the skin of lovers of heights. It keeps the greatest biodiversity of our land, in which the largest (non-marine) bird in the world reigns: the Andean condor.

Spell

On one of my trips through the Andes

in the occidental area of the 71,000 ha
National Park Nahuel Huapi, following
the "Paso de las Nubes" path, I started
my walk at the foot of the Tronador Hill,
from Pampa Linda: the valley and door
to varied options of treks. I ventured
to cross the transparent, fresh, almost
frozen river Los Alerces. Over time, in
the higher areas, the trees transformed
into flat shrubs. Despite the fatigue in my
body, all this was a delight for the eyes

and the soul! Up there the spell began to take effect, because I felt the touch of the clouds and the embrace of the earth at the same time. I closed my eyes, filled my lungs with pure air and concentrated on enjoying the soft sound of the wind, bringing secrets from the high summits. But suddenly there was a different sound. That moment froze with an unexpected sight: it was a male Andean Condor (*Vultur gryphus*), with its glamorous white

collar and reddish-brown caruncle gliding majestically right before my eyes.

Worthy to be portrayed! It reached an impressive span of 3.3 meters with its outspread wings. At the same time, its wing feathers, curved by the wind, emphasised its elegance. His white cloak, like a sprinkle of snow, dressed him very lordly. Below the mantle, jet black feathers, long and worn out at their ends, as if carrying a load of wisdom, reflected hard times on these lands and certain longevity. Who knows how old my friend was, but the truth is that the Condors can reach the age of 65 in the wild. It is a long life, unlike the lifespan of other birds, but it doesn't ensure the perpetuity of the species in these latitudes. This monogamous bird has an extraordinarily low reproduction rate. It takes two to three years from the courtship of the parents until the chick leaves the nest: a factor that makes it vulnerable.

That fleeting but unforgettable crossing with one of the countless kings of birds was recorded in slow motion. Our initial scared glances, were then filled with respect and finally with admiration. I kept thinking: How can such a creature float in the air and travel 350 km in one day? It was clear that it requires wide wings, height and air currents to lift its 14 or 15 kilos. Vertical rock walls in the form of skyscrapers and the wind are the perfect accomplices to take a flight through the clouds. This kind of glide is a pleasure or luxury for many of us, but for the condor it is the way to survive. This lay of the land and the long distances that Condors fly daily make them almost countless. The IUCN declare a total population of 100,000 and different observations







and studies mention 23,000 Condors in the Chilean Andes, but they are all estimations.

Whirlwind effect

On my walk, after that wonderful encounter, in my mind a whirlwind of questions and information about the "Kuntur", Quechua name for Condor, arose that I had to sort out. To my surprise, and despite its size and strength, it's a bird that doesn't eat live animals. By definition it is a scavenger, lacking claws and other natural weapons to kill. The search for food is a team effort. When one Condor detects a dead animal, it flies in circles in the sky. That's the way that Condors transmit the news about food to others over long distances. So, a large number of diners could come to the feast. No attacks on cattle, or domestic animals, unlike I used to think. Exactly

that ignorance of mine and others has led to bloody Condor killings for centuries, assuming it feeds on cattle.

As is usual every day, at lunchtime my stomach growled. Thought about my food and about the condor's. In my case, it's every day a simple choice of several menu options, but for a scavenger, obtaining food is quite a complex technique. The condor lets other birds, usually small scavengers, do the spotting and taste the banquet, and when he sees that, mealtime! Quickly more condors begin to arrive. Not without reason large mammals are preferred, especially guanacos, because it has to be enough for all companions. But everybody in proper order: the old gentleman has priority, then the lady and finally the little ones. However, there are "condiments" called pesticides or poisoned carrion, which

the condor doesn't know... and which will cause the death of many other condors too.

I decided to have lunch at the highest

point of the crossing, about 1,300 meters above sea level, next to one of the paint marks that points out the right path. I sit on one of the large stones that are one with the ground of a great plain of perfect pastures, resembling a golf course, under a typical tree named by the naturalist Krasser "Nothofagus pumilioand" or simply "Lenga" for natives. It was inevitable to look at the sky in search of one of 23 vultures in the world that flew in front of me moments ago. In fact, it's possible to see the slow flight of these giants that dominate the air in corners of wild nature like all Argentinean National Parks along the Andes and in the "Quebrada el Condorito Park" - located in Cordoba, one of the last refuges outside the Andes. That's why I focus the view in the direction of the camp area, at the base of the Frias glacier, there were three birds enjoying gliding on the horizon, among clouds, snow-capped peaks and the sun. I had the illusion that he was my friend with his family: his lifelong companion and his offspring following his first instincts on his way to adulthood. Company of two or three birds makes his aerial dance even more beautiful, and also gives hope for his state of conservation.

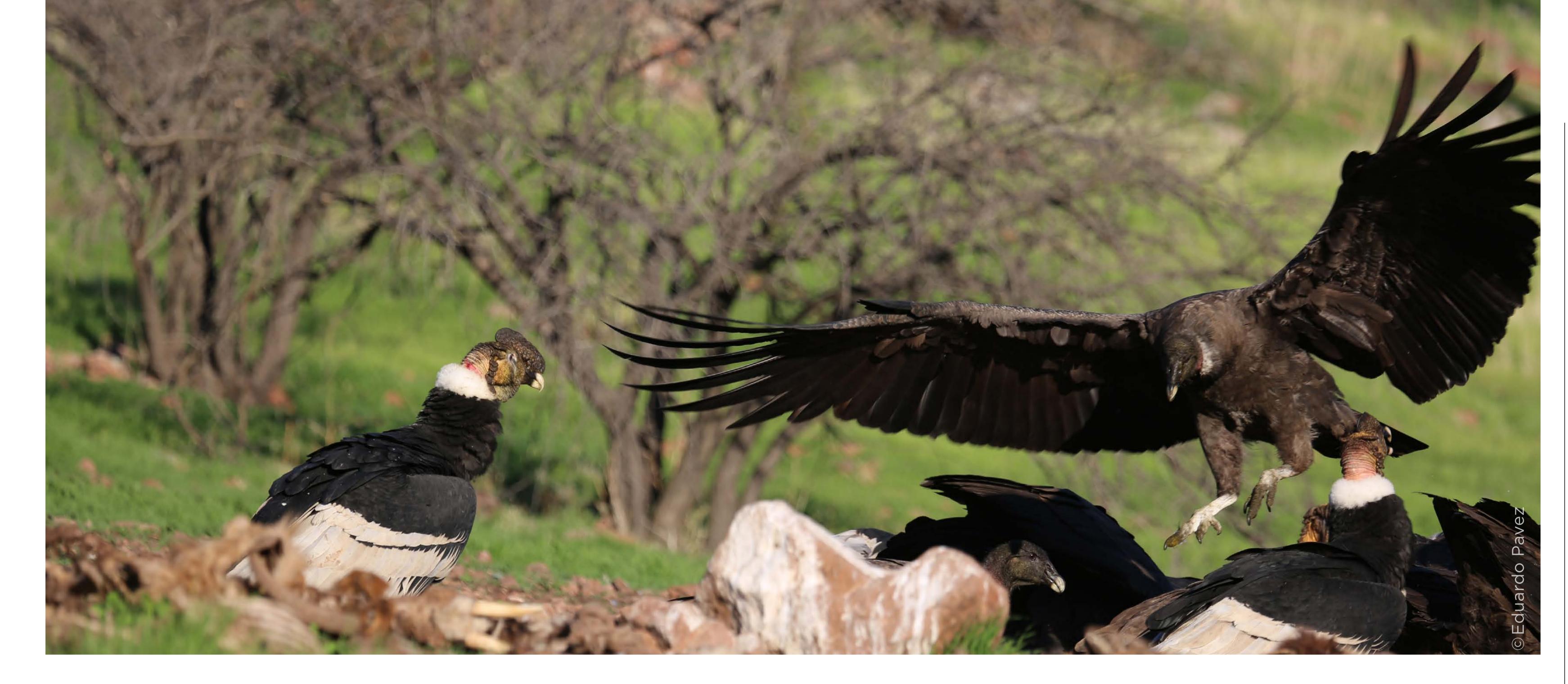
The words of my friend Dr. Eduardo
Pavez, a raptor specialist who decided to
save this flying "spirit of the Andes", came
to mind:

"The Andean condor is classified as Near Threatened (NT) by the IUCN Red List . But the conservation status of the condor is quite heterogeneous throughout its wide range of distribution. In the Northern Andes (Colombia, Ecuador) their populations have experienced a marked retraction and are currently very diminished and in danger of disappearing. In the central Andes (Peru, Bolivia, northern Chile and Argentina), populations are more numerous, although they don't become abundant. In the southern Andes (Chile and Argentina) is the largest proportion of the current condor population, becoming abundant in the Patagonian mountain range." Dr. Pavez is a Chilean Veterinarian. President of the "Union de Ornitologos de Chile". Co-Director of the Chile-Argentina Conservation Program of the Andean Condor (PCCA)

Returning to my trekking, I started the last stretch to reach the camp. The descent began along a winding path where the vegetation became denser; the sound of the woodpecker was heard unceasingly along the unruly sound of the Frias River paving its way. At that time, there was only one camping area, which for me was a "Human Deluxe perch". It was a dreamy landscape like condors have in the air, with a perfect and direct view of the Frias glacier. The "Mattress" of the condor is own cloak of feathers that rest over rocks tempered with the first rays of the dawn sun.

That night my mattress was the earth and my sun the natural shade of the Coihues, ancient trees of the south of the world. It sounds strange and ironic, but it is the ideal room for adventurers and nature lovers. A place where the unbeatable





landscape merges with fatigue and invites you to close your eyes to invite new dreams.

The morning did not wait. Even in the dawn, a diversity of birds did not delay announcing the new day. That hour was very precious for my eyes. Without moving from my natural bedroom I could witness the magic sun painting the sky and the Frias glacier with a palette of warm colours. They were minutes of a unique show that should be recorded forever.

In life, and especially when it is a day of intense physical activity, the motto: "Breakfast like a king ..." is law. So, I left behind the warmth of my perch and sat next to another adventurous early-riser, with whom I began to exchange thoughts about our trekking experiences.

The subject of the condor came up in the conversation and apparently he was well informed, because immediately his face expressed concern and anger. The conversation led us to philosophize about how harmful we humans are with our decisions. Our need to "evolve" economically applying agrochemicals, changing to intensive livestock, has as a consequence an "involution". Impacts that we are only able to measure "with the Monday newspaper" and sadly go to the detriment of other beings such as condors.

The conversation remained open at an interesting talking point, when we reflected on how to reverse the vulnerability of the king of the mountain range. But it was 10 o'clock in the morning and it was time to make my way as I walked.

With my backpack I started the second and last leg of my trip in the northward direction to Port Blest, one of the seven arms of Lake Nahuel Huapi where a ship would bring me to Bariloche city. This time the landscape was different: The huge trees and the Colihue canes hid the sky. The lichens and mushrooms were signals of the dew and humidity that the clouds leave when they are overpassing the mountain range. The excursion was coming to an end in a very entertained way. And so, my thoughts on the condor rounded off my further painting and some conclusions:

"When we plan a walk, we study the road on the map, we evaluate the possible difficulties, and prepare everything accordingly. This will also be the simplified process that is required to reverse the state of vulnerability of the condor.

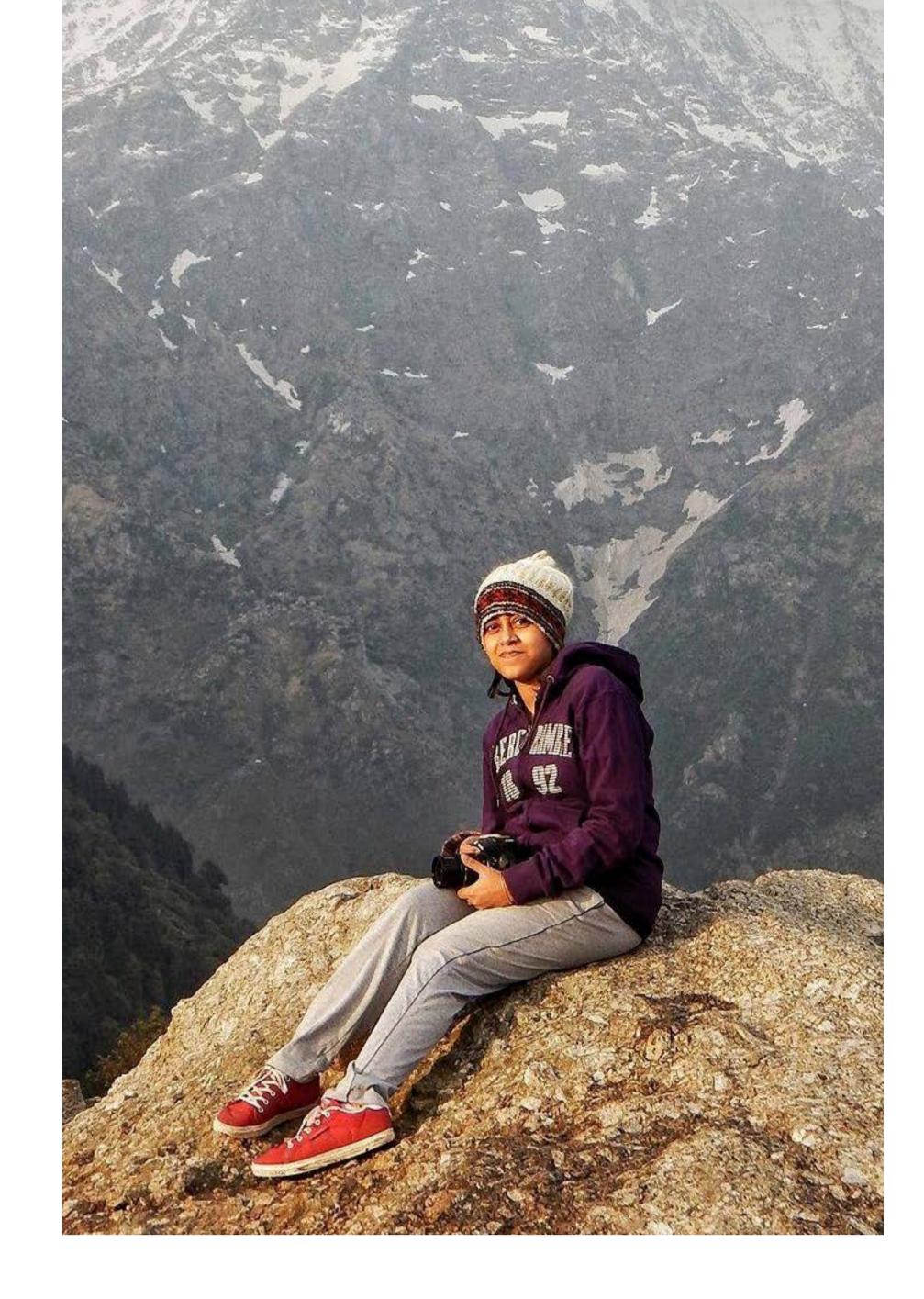
Since 1993 Dr Pavez is working on this way, studying and monitoring condors population in Central Chile and Patagonia. Since 2001, the Chile-Argentina Conservation Program of the Andean Condor (PCCA) starts to reintroduce these birds throughout through rehabilitation of hurt Condors and reproduction in captivity. All this effort with awareness work with the community has resulted in achieving more than 163 reintroductions."

During the walk we recognized contingencies, new scenes and situations, so study work must be constant. A right and precise diagnosis is the key to identify appropriate measures and will be successful in neutralizing the threat. However, we need to know more about the condor and new questions are opening up with the expansion of human activities. How many individuals are actually there? What is the impact of the historical change of the environment? The lack of food that makes them use the waste in landfills as asource of food. Which is the best reintroduction strategy: males or females? These all are some of the questions that still have no answer and must be solved when moving on.

The future of the bird that caresses the sky along and across the Andes depends on a small secret that marks the great difference: willpower. It is the magic word that leads us to achieve small projects such as the unforgettable journey through the wild and imposing territory of the mountain range and the same that can unite us to return the largest (non-marine) bird in the world to our lands.







Amrita Das is a lawyer from Bhopal, India and works as freelance legal editor. Amrita is passionate about protecting earth's environment and an avid photographer.

Amrita is an intrepid traveler who likes to visit and photograph the wild lands of India.

(This is Part One of Two Part Article)





India, a mega diverse country with only 2.4% of the world's land area, accounts for 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals. The country's diverse physical features and climatic conditions have resulted in a variety of ecosystems such as forests, wetlands, grasslands, desert, coastal and marine ecosystems which harbor and sustain high biodiversity and contribute to human well-being.

India has 733 Protected Areas which include 103 National Parks, 543 Wildlife Sanctuaries, 73 Conservation Reserves and 45 Community Reserves. The Indian Government has also established Biosphere reserves, which protect larger areas of natural habitat, and often include one or more national parks and/or preserves, along buffer zones that are open to limited economic activities.

National Park

According to Wildlife Protection Act, 1972, "National Park" means an area declared, whether under Section 35 or Section 38 or deemed, under sub-section (3) of Section 66 to be declared, as a National Park. The State Government shall publish a notification specifying the limits of the area which shall be comprised within the National Park. National park is an area which is strictly reserved for the betterment of the wildlife & biodiversity, and where activities like developmental, forestry, poaching, hunting and grazing on cultivation are not permitted.

Largest national parks in India:

Hemis National Park,

Jammu and Kashmir - 4,400 km2

Desert National Park, Rajasthan - 3,162 km2

Gangotri National Park, Uttarakhand - 2,390 km2

Namdapha National Park, Arunachal Pradesh - 1,985 km2

Khangchendzonga National Park, Sikkim - 1,784 km2

Wildlife Sanctuary

According to Wildlife Protection Act, 1972, "Sanctuary" means an area declared, whether under Section [26(A)5] or Section 38, or deemed, under sub section (3) of Section 66 to be declared, as a wildlife sanctuary.

A sanctuary is a protected area which is reserved for the conservation of only animal and human activities like harvesting of timber, collecting minor forest products and private ownership rights are allowed as long as they do not interfere with well-being of animals.

Largest wildlife sanctuaries in India

Kachchh Desert, Gujarat - 7,506 km2

Karakoram Wildlife Sanctuary, Jammu and Kashmir - 5,000 km2

Wild Ass Sanctuary Gujarat 4,953 km2





Largest conservation reserves in India

Afghanashini, Karnataka - 299.52 km2 Chharidhandh Wetland, Gujrat - 227 km2 Kolamarka, Maharashtra - 180.72 km2 Sudhmahadev, Jammu & Kashmir - 142.25 km2

Shakambhari, Rajasthan - 131 km2

Community Reserves

Conservation reserves and community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India.

Such areas are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if parts of the lands are privately owned.

These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002 the amendment to the Wildlife Protection Act of 1972.

These categories were added because of reduced protection in and around existing or proposed protected areas due to private ownership of land, and land use.

Largest community reserves in India

Kokkare Bellur Community Reserve, Karnataka - 3.12 km2

Kadalundi Vallikkunnu Community, Rerserve Kerala - 1.50 km2

Kpoh Eijah Community Reserve Meghalaya - 0.17 km2

Miewsyiar Community Reserve Meghalaya - 0.87 km2

Umsum Pitcher Plant Community Reserve Meghalaya - 0.40 km2

Reserved or Protected Forests

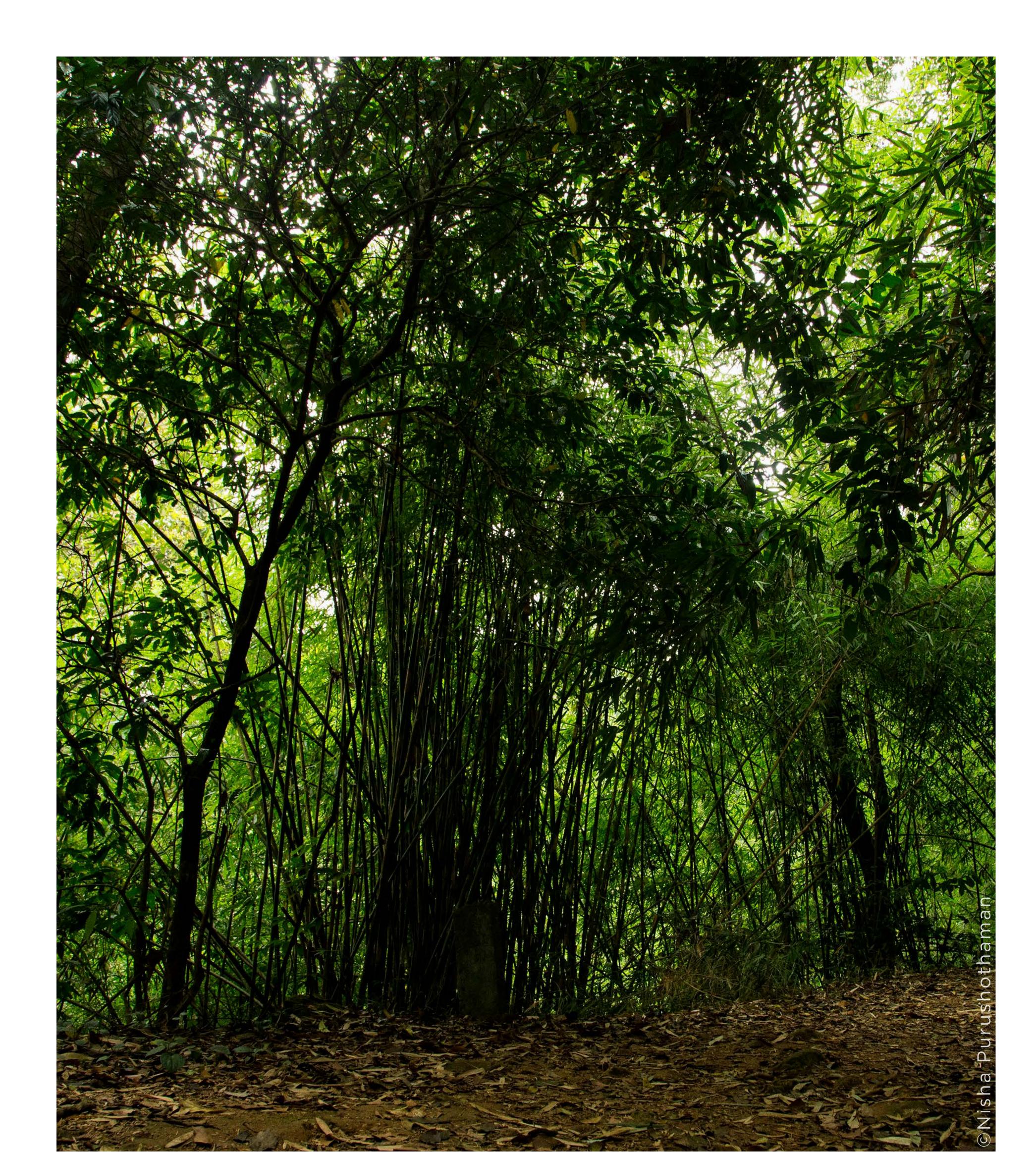
Reserved forests or protected forests are the forests accorded a certain degree of protection. The first Reserve Forest of India was Satpura National Park. Land rights to forests declared to be Reserved forests or Protected forests are typically acquired (if not already owned) and owned by the Government of India. Unlike national parks of India or wildlife sanctuaries of India, reserved forests and protected forests are declared by the respective state governments. At present, reserved forests and protected forests differ in one important way: Rights to all activities like hunting, grazing, etc. in reserved forests are banned unless specific orders are issued otherwise. In protected areas, rights to activities like hunting and grazing are sometimes given to communities living on the fringes of the forest, who sustain their livelihood partially or wholly from forest resources or products.

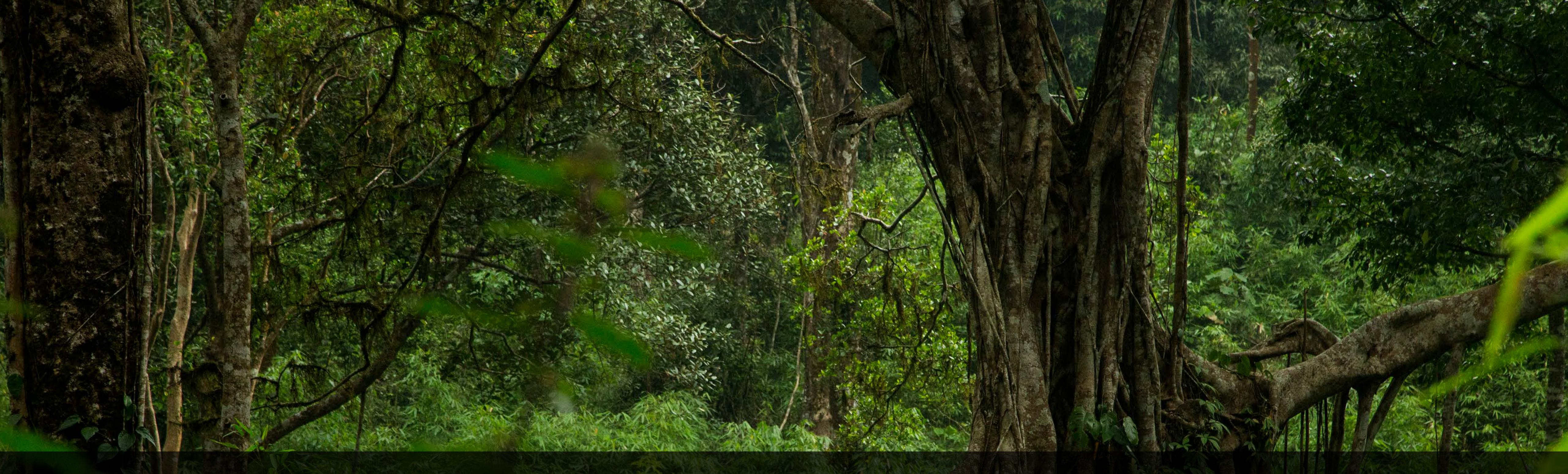
Protected forests are of two kinds demarcated protected forests and undemarcated protected forests, based on whether the limits of the forest have been specified by a formal notification.

Typically, reserved forests are often upgraded to the status of wildlife sanctuaries, which in turn may be upgraded to the status of national parks, with each category receiving a higher degree of protection and government funding. For example, Sariska National Park was declared a reserved forest in 1955, upgraded to the status of a wildlife sanctuary in 1958, becoming a

Tiger Reserve in 1978. Sariska became a national park in 1992, though primary notification to declare it as a national park was issued as early as 1982.

As the wildlife of India is as vast as the country, there are some issues and those need to be overcome for the betterment of all the living beings.





Buffer Zone

The buffer zone adjoins or surrounds core zone, uses and activities are managed in this area in the ways that help in protection of core zone in its natural condition. These uses and activities include restoration, demonstration sites for enhancing value addition to the resources, limited recreation, tourism, fishing, grazing, etc; which are permitted to reduce its effect on core zone. The core area has the legal status of being a national park. The buffer area, however, does not have legal status of being a national park and could be a reserved forest, wildlife sanctuary or tiger reserve. The directive of the Supreme Court to identify and declare a buffer zone around every national park in a tiger reserve is a welcome step that wildlife conservationists say can lend a strong

legal impetus to tiger conservation.

Kanha, in Madhya Pradesh, already had a clearly notified buffer zone in 1977. While the Wildlife (Protection) Act of 1972 (amended subsequently in 2006) provides for the creation of a buffer zone in a tiger reserve area, some valid concerns about the tremendous value of such areas for the exploitation of natural resources and the undertaking of mega-development projects therein have somewhat weakened the government's resolve to declare them buffer zones. At present, there are 42 tiger reserves in India, 15 of which are still without notified buffer zones. The apex court has also directed that the limits of the buffer/ peripheral areas must be determined based on scientific and objective criteria in consultation with village councils and an expert committee constituted for the purpose.

Protection of Wildlife outside Protected Areas:

There is substantial wildlife and natural resources lying outside the Protected Areas network of India which seeks to support the conservation of wildlife in these areas.

Anti-poaching & infrastructure development:

For Anti-poaching activities the infrastructure, wildlife veterinary care and staff wildlife activities should be strengthened.

Human-animal conflict:

In India, human-animal conflict is seen across the country in a variety of forms, including monkey menace in the urban centers, crop raiding by ungulates and

wild pigs, depredation by elephants, cattle lifting and human death and injury by tigers, leopards and other wild animals, occurring both inside and outside Protected Areas. The incidents recently increased due to increase in wild animal population, fragmentation of habitats, non-availability of food and water in the habitat due to degradation, disturbance in the corridors due to developmental activities, change in cropping pattern, increase in human populations etc. Various other reasons include adaptability of certain animals like leopard, monkey, nilgai, bear etc. which allow them to live successfully close to human habitation. The human-animal conflict is an important part of wildlife management as the cooperation of local population depends largely on winning their support by reducing loss to them by wild animals among many others.

CONSERVATION

Brazil's Atlantic Forest

By Priscilla Esclarski

Images By Maria Isabel Weyermanns





Priscilla Esclarski is a
Brazilian biologist who has
studied owls in the Atlantic
Forest and Amazonia, and
now she's working in her
doctorate, and developing a
project about vocal variation
in bird species of the Atlantic
Forest.

See: owlsnoturnas.blogspot.ae

Brazil is one of the most biodiverse countries in the world, but the indiscriminate exploitation of natural resources has brought several species to the brink of extinction. The anthropic alteration of the natural landscape has become a general reality in the country, and although secondary forest ecosystems can become similar to the primary forest when untouched for many years, there are invariably irreparable losses of species and their gaps can be noted both in fauna and flora.

Of the Brazilian biomes, the Atlantic
Forest is among the priority areas for
conservation. This biome occupying
fertile soils has been drastically reduced
to scattered forest fragments amidst a
farming matrix in a few decades. Today
it suffers from the enormous erosion
process, sedimentation of the river
system and pollution from the use of

biocides and industrial waste. Drastic anthropic actions in the landscape imply natural areas too small to house species that require large habitats to survive. The fauna that can survive the process of habitat fragmentation, is destined, in the near future, not to reach more or to be very close to the minimum tolerable size for the subsistence of the population.

Besides being one of the richest regions in the world in biodiversity, it is vitally important for approximately 120 million Brazilians living in its domain, where approximately 70% of the Brazilian GDP is generated, providing important environmental services. It regulates the flow of water sources, ensures the fertility of the soil, its landscapes offer scenic beauties, controls the climatic balance and protects scarps and slopes from the mountains, and preserves immense historical and cultural heritage. In this context, protected areas, such as Conservation Units and Indigenous Lands, are fundamental for the maintenance of representative and viable samples of the biological and cultural diversity of the Atlantic Forest.

Originally, this biome occupied the entire Brazilian coast extending from Rio Grande do Norte to Rio Grande do Sul, encompassing fully or partially 17 Brazilian states, occupying, in addition to the coastal zone, also hundreds of kilometers from the interior of the country and reaching Argentina and to Paraguay. The original coverage of the Atlantic Forest represented 15% of the Brazilian territory, that is, an area equivalent to 1,296,446 Km2

Although reduced and very fragmented,

it is estimated that in the Atlantic Forest there are about 20,000 plant species (about 35% of the species in Brazil), including endemic and endangered species. Regarding fauna, surveys indicate that the Atlantic Forest contains about 850 species of birds, 370 species of amphibians, 200 species of reptiles, 270 species of mammals and about 350 species of fish.

Brazil has a list of more than 1,900 species of birds, of which about 850 occur in the Atlantic Forest, and of these, the great number of endemism stands out. About 185 vertebrates are listed as endangered in the Atlantic Forest, of which 118 are birds.

The concentration of endangered species occurs mainly within the boundaries of the Atlantic Forest, and in the Serra Espirito Santo, Rio de Janeiro, Santa Catarina (Serra do Mar), southern Bahia and Pernambuco-Alagoas Endemism Centers; and possibly, are at more critical threat levels than described in the literature.

Today, only 27% of the remaining native vegetation of the Atlantic Forest remains, this percentage is divided into more than 200 thousand fragments, in general, very small, and according to a report by the SOS Mata Atlântica & INPE Foundation (2008), only 7.26%, equivalent to 97,596 km2 of these remnants are well preserved (greater than one km2).

In the Atlantic Forest domain there are 131 federal conservation units, 443 state, 14 municipal and 124 private, distributed in sixteen states, with the exception of Goiás, in Brazil. The Atlantic Forest





domain is probably the region with the largest number of conservation units in Latin America, however, these grandiose figures are not enough, since the system is far from adequate: nevertheless, protected areas cover less than 2 % of the biome, protected areas only protect 24% of the remainder, many units consist of very small and isolated fragments, and half of the endangered vertebrate species are not found in any protected area Other related problems are the lack of infrastructure to maintain conservation units and a series of impasses with indigenous leaderships, as observed in the Cardoso Island State Park, Superagüi National Park and in the Monte Pascoal National Park. In Argentina and Paraguay there are important conservation units of the Atlantic Forest ecoregion of Alto Paraná, which in Brazil are summarized to the Iguaçu National Park, Morro do Diabo State Park and Turvo State Park.

Conservation units in the province of Misiones, Serra do Mar and southern Bahia are mosaics of great interest in conservation, since they form the largest continuous remnants of the Atlantic Forest. It is proposed, for the maintenance of biodiversity and key ecological processes, the creation of corridors linking the conservation units of each of these regions.

In several areas there are several fragments preserved due mainly to the limitations that the sinuosity of the land imposed on the use of the ground, and although drastically reduced, still presents great biological diversity, since these remnants, being the unique and the last representatives of the biome, have

become the main havens for species that require forest environments to survive. Due to its high biological diversity, its advanced state of degradation and its high indexes of endemism, the biome is among the top five in the ranking of the planet's biodiversity hotspots. If we consider that most of the devastation occurred during the 20th century, extinctions are likely to be observed in the coming decades, so the disappearance of endemic species is only a matter of time.

Brazilian: A Fundação SOS Mata Atlântica Rede ONGs da Mata Atlântica

My research: The main line of research is the analysis of ecological aspects of forest avifauna after decades of anthropic actions in the Atlantic Forest. Among the aspects that will be evaluated are the lack of connectivity between the fragments, riparian forests as corridors for forest birds and factors that contribute to a greater functional diversity. We aim to understand the composition and functional organization of the bird community along the Atlantic Forest so that the results allow us to infer about the composition and functional organization, ecosystem value and conservation status, as well as the difference of the vocal patterns along the environmental gradient that the biome represents in order to contribute to the preservation of the avifauna in the region.

International: Conservação Internacional (CI), WWF, Greenpeace to work in partnership with SOS Mata Atlântica Despite the slowing down of deforestation, ecosystem degradation





and threats to species continue. In the Atlantic Forest, the number of species of threatened plants and animals jumped from 656 in the 2003/2004 (fauna) and 2008 (flora) assessments to the current 2,131 species, considering revisions of the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and CNCFlora; in the case of fauna, are 587 species, representing 50% of all endangered species in Brazil today. Certainly, many species have been included in the list due to the increase of scientific knowledge in the last decade. However, many other species have been listed because their populations have declined over the last decade in the wake of deforestation and degradation of their habitats.

The SOS Mata Atlântica Foundation is an NGO created in 1986 whose mission is to defend the Atlantic forest, preserving the natural and historical heritage, seeking a sustainable development that can preserve the fauna and flora. It is a private NGO, with no party or religious and non-profit ties. The organization works on three fronts: protection and recovery of forests, protection of the sea and search for quality of life in the cities. The work of SOS Mata Atlântica is to alert, inform, educate, mobilize and empower for the exercise of citizenship.

NGO Network of the Atlantic Forest created with the aim of creating a network for the defense, preservation and recovery of the Atlantic Forest, through

the promotion of information exchange, mobilization, coordinated political action and mutual support among NGOs and, in this way, to strengthen the local and regional actions of affiliated entities. The network was created to try to present solutions that individual institutions were not able to provide. A year later, in 1993, at the first national meeting of the Network, during the Brazilian Forum of NGOs and Social Movements, RMA had 30 affiliated entities. In 1994, this number reached 118 NGOs. Today, with 317 affiliated institutions, among environmental, socio-environmental and research organizations, distributed in the 17 states that are in the Atlantic Forest Domain, the Network is seen as a legitimate and representative collective.

Birdwatching is the opportunity for enchantment and intimacy with nature, translated into song, lightness and colors. It is also an important tool in environmental education and "Citizen Science". From the moment the common citizen has access to scientific information, he comes into contact with nature in a more intimate way, and awakens in him the sense of appreciation, the observation of birds passes from hobby to conservationist practice. I believe that this is the means to make the citizen the protagonist of environmental causes. The success in preserving our biomes lies in awakening the common citizen's need for the preservation of our forests.



Australia - Harvesting trees for timber to save the environment

By Rowan Reid



place to start was the eroded creek that dissected the property. We fenced it out from our farm animals and planted trees. But, rather than plant indigenous trees and shrubs and 'let nature take its course', we established a mix of species and actively managed them for high quality timber. We have since harvested many sawlogs for furniture, veneer and building materials. My aim is to ensure that every harvest leaves the forest better

able to support biodiversity, control land degradation, improve water quality and produce valuable timber.

Our creek planting is just one example. I work with farmers around the world and are yet to visit a property that would not benefit from having more, or better managed, tree cover. Trees that could also be providing timber and other commercial products. Because every farm, and every farming family,

option. Our education and extension programs focus on helping landholders design systems that best reflect their individual needs and opportunities. The result is a diversity of new forests that emerge like a web-of-trees across the landscape, reflecting the diversity and linkages inherent within the community, their agricultural systems and the landscape itself.

In my new book *Heartwood* I tell my story, and those of many other farmers across Australia and overseas, of our exploration of ways of growing trees for both conservation and profit. Whilst the species and products vary, the underlying principles of tree biology, wood production, forest design and tree management are relevant to farmers anywhere in the world. Whether we harvest our trees for timber or not, just by planting and managing them we are helping others uncover opportunities. Our legacy may not just be in the trees, or the furniture, we leave behind, but also in those that others grow in other landscapes for other reasons.

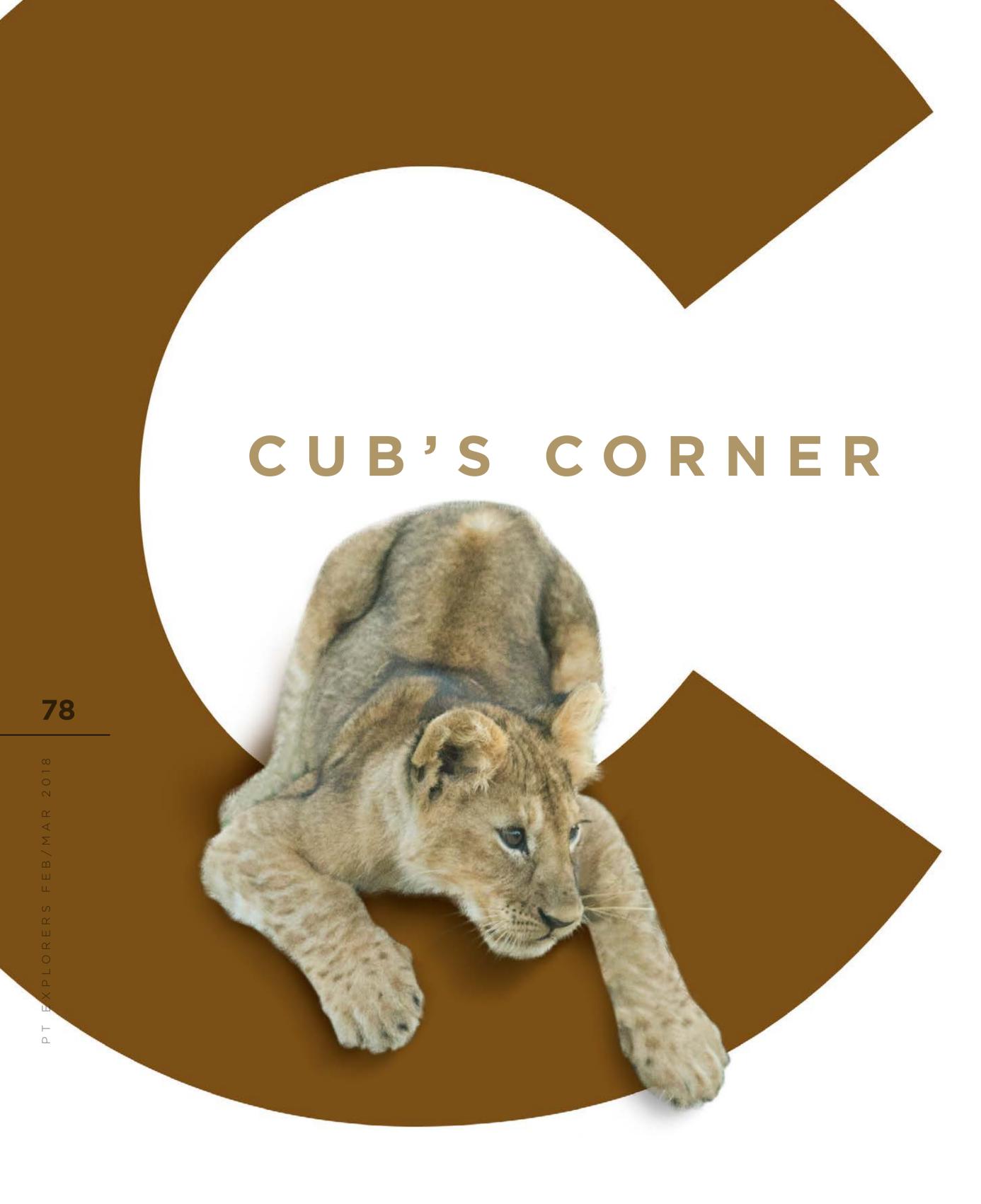
Rowan Reid is a Fellow of The University of Melbourne's Faculty of Science, and coordinator of the National Tree Growers Program. His latest book is Heartwood: The art and science of growing trees for conservation and profit. Melbourne Books. He is the founder of the Australian Agroforestry Foundation.

See: www.agroforestry.net.au





CUB'S CORNER



Varsha Saju Nair, born on 27th
June 2004 in Kerala, India, was
captivated with colors and music
from her childhood days itself.
She started her education in Delhi
Private School, Sharjah and is
currently in her 8th Grade. Over
the years, she has performed at
various stages in art and cultural
activities across UAE.

She is a multi-talented student with eagerness to learn more and is willing to devote maximum time to enhance her creative abilities. She attends to her assignments with due vigor, skill and enthusiasm- creating positive energy at all levels as she perseveres.



Born in the verdant lands of Kerala, I was always fascinated with colors. One of the most beautiful places where colors and sounds mix anew daily to create a soothing ambience. I've always felt that Kerala gives me a chance to get intimate with nature. Having experienced this magical scenic beauty, I was very keen to portray my imaginations in the best possible way.

Since I have always looked for a platform where I could use my passion and creativity for a cause, and because of





my roots in the verdant lands of God's own country, I decided that I would paint nature. My determination was further affirmed by how, all around the world, we are being united by the growing concern of climate change.

While each country is competing to be the best in terms of development, we sadly forget that in the process we are also destroying nature, ignoring that it is our responsibility to hand over mother earth at her most pristine to the next generation. Nowadays, natural calamities have become a regular phenomenon across the globe. Landslides to earthquakes, Floods to Tsunami, Forest fires to Volcanic eruptions have increased manifold and the cause of all these have been pinned to the external pressures exerted on the planet by man in the name of development.

It's a fact that we all want upgradation and luxurious living, but all these luxuries gained at the expense of nature is quite alarming. As everyone, I am also afraid and worried about the unpredictable aggression of Mother earth in coming years which we, as a society, need to address. At this juncture, we need to press for corrective actions with urgency to stop Earth from hurtling into the frightening future that lies ahead of us in case we continue to exploit our land like we have until now.

I believe we are all in this cause together.
We need to start awareness programs
right from the early years of school,
reaching out to upper elementary
children through seminars, interactive
games and sessions, hands on activities
with the support from teachers and other

influential role models in society to build a respect for nature in young minds.

I believe that even me, as a young student, can and should uphold my responsibilities to our bountiful lands while learning to respect and appreciate the colorful flora and amazing fauna that we have been provided with. I do this by always taking inspiration from my surroundings and being compassionate about working on nature related topics. One of the ways to do this is to channel my creativity towards a larger cause.

Painting fills me with exuberance and immense positivity. Every time I apply my brush to canvas I find a new way of expressing myself. When I paint nature, I try to apply all that I sense as good and pure into my art. Seeing my work, if someone realizes the beauty of nature and decide to pledge to secure mother earth, that will be the best moment in my life.

Having identified my interest in drawings in early 2015 when I was 11 years old, my parents provided me with the best platforms to learn and perform. Joining IWS family in 2016 was one of the major turning points of my artistic career as I happened to find various artists and their works that continue to inspire me. Different strokes and techniques of each of these artists has helped me to develop my skills and ideas. I was fortunate to display my artworks at a couple of exhibitions in Dubai wherein the appreciation and acceptance from art lovers has really motivated me to paint my imaginations with larger responsibilities. The Student Art Exhibition conducted by art4u Gallery in



Dubai Cartoon Art Gallery in November 2017 was my first exposure as an artist followed by Painting exhibition titled "Le Miracle" organized by art4u Gallery @ The Workshop, Jumeirah in January 2018. My journey with colors started two years ago and over time has given me immense opportunities to grow and learn from the Dubai art community.

Participating in art workshops by renowned artists Mr. Vikrant `Shitole, Mrs. Varsha Pandit & Mrs. Jesno Jackson gave me confidence to play fearlessly with colors in different mediums like Knife painting, Soft Pastels, Pencil Sketch, Water Color and Acrylic paintings. Being a part of Live paintings at Sheraton Beach Resort, Sharjah along with various artists of different nationalities helps me to perform my art in a much-disciplined way.

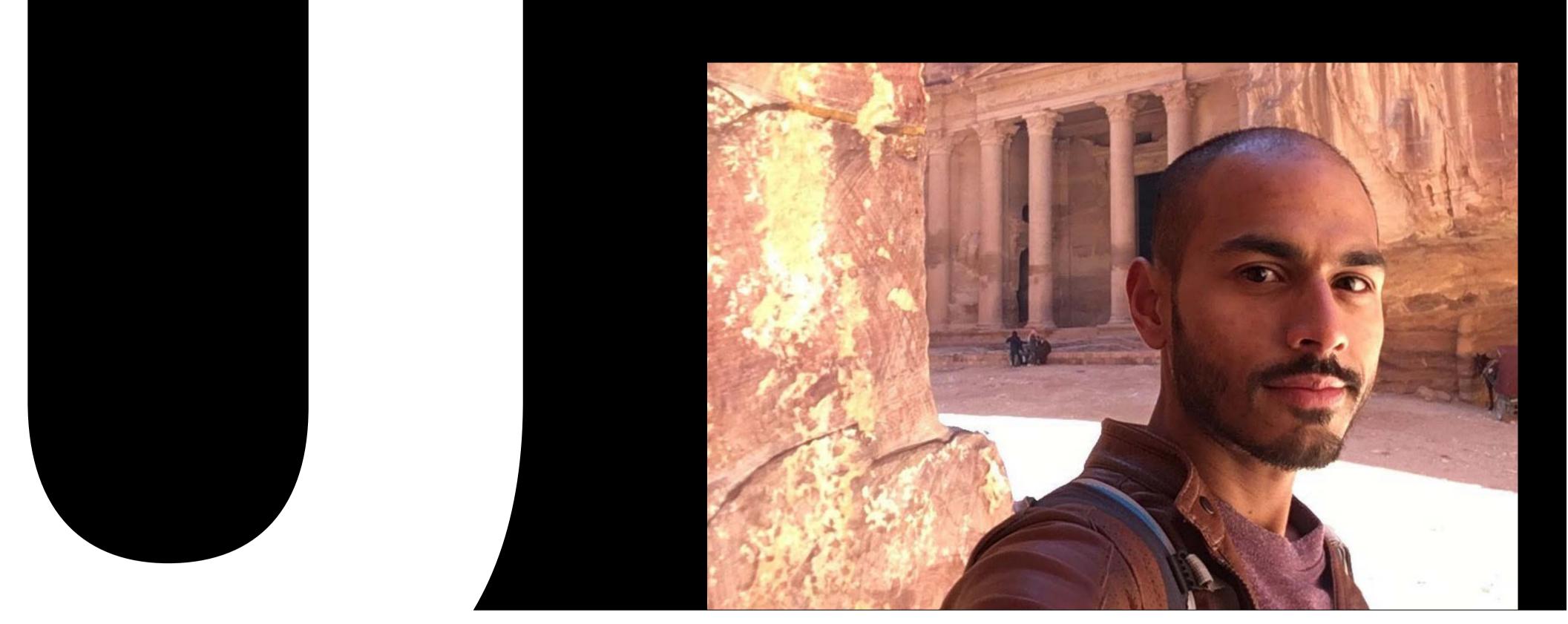
Participating in the painting competition organized by Paws trails in coordination with Dubai Cartoon Art Gallery is a moment to remember and cherish as my artwork was selected as the first best painting of that day in 2017.

`I dream to make a mark in the world and to inculcate in people a love and appreciation for all that we see around us. I strive for the same with my artistic pursuits. By keeping my latest success as the next bench mark I will proceed with exploring more avenues in the field of art and to be known as an artist inspired by wonders of nature.





THROUGH THE LENS



My name is Uzeyr Kamora, I grew up in Kenya and have always been surrounded by nature and animals. Animals have always formed a major component of my life and so I pursued a career in veterinary nursing as my profession. Ever since I was a child the underwater world and the animals that inhabit the ocean have fascinated me - especially whales and sharks

I started scuba diving at 11 to get as close to this magical world as possible.

I always take my camera on my trips diving and hope to see as many of the amazing creature of the blue ocean as possible.

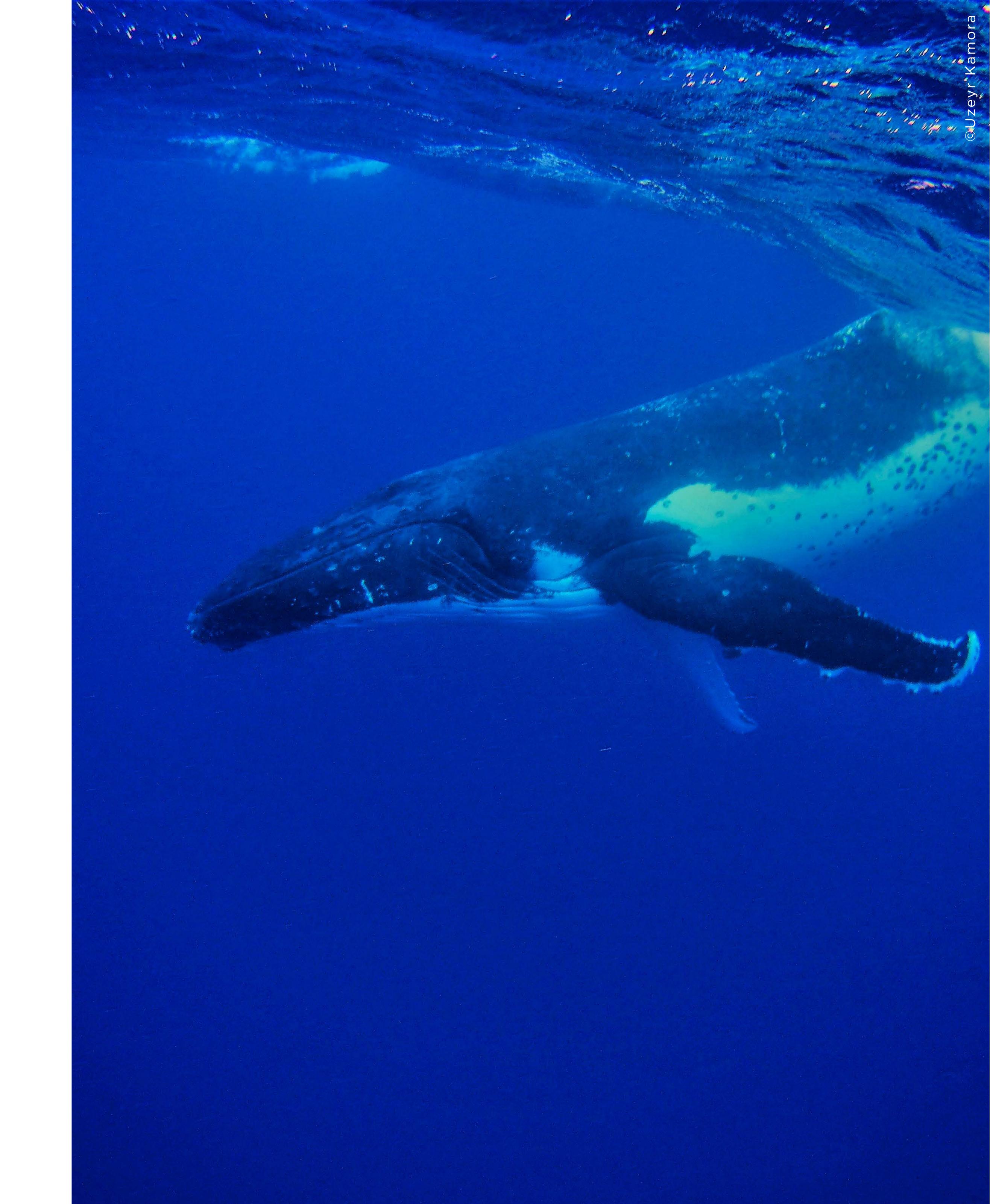
facebook.com/uzeyr.kamora

Having swam with sharks, mantas and even whale sharks my ultimate dream since I was 11 was to swim with whales. After researching and saving up for what seemed ages I was on my way to the South Pacific. It took a total of 35 hours to reach my destination a small island in the South Pacific known to have Humpback whales (*Megaptera novaeangliae*) – Tongatapu Island

The whales visit these warm waters in the winter months of the Southern Hemisphere to give birth and mate, and it is here if you are lucky you can see and maybe swim with these magnificent giants. I couldn't contain my excitement

as I landed on the island of Tongatapu.
The next morning I geared up and was
ready to go searching for the Humpbacks
of Tonga.

Using a small boat my group set off on our first day, if this was anything like I had experienced before we would have to be very lucky to see whales on our first day, as with any safari it all depends on luck. However, it was not long before I saw the first sign of a Humpback, a blow, the long column of water sprayed when they surface to get air, one of the best way to spot a Humpback. I couldn't contain my excitement and wanted to jump straight in. The guide held me back and explained



that, the whales ultimately decide if they want to swim with you or not- not the other way around.

After following the whale for a few minutes the whale slowed down and let us approach, maybe five meters from the boat. I jumped in when my guide gave the signal, the water was cold - surprising for a tropical island but it was the winter after all. I remember looking frantically left, right and below to see where the whale was, in the distance I could make out a dark shapeand knew it was the whale. It was huge! but in a split second the whale was gone. I looked around for a further few minutes and saw the guide signal us to get back up on the boat. I was really upset as I couldn't even make out that it was a whale in the water, not the experience I had in mind. As the last person got back on the boat the blow sounded once again- the whale had surfaced, it was right next to the boat again. Puzzled and excited we jumped back in and again the whale disappeared into the blue. It was almost as if the whale was playing with us, this continued for about 30 minutes - jumping in, see a dark figure below, then get back on the boat, everyone was physically tired. In the distance the whale was breaching as if to mock us- it really was the whales decision. As with any wildlife encounter it was based on luck.

After five days of going out and seeing the same behavior again and again I had lost hope of seeing the whales underwater, let alone get a photo. The guide told stories of how sometimes the whales would stay and swim with people for hours, some part of me didn't want to believe him, but I had seen some amazing





videos of people being face to face with the Humpbacks.

By my 6th and final day, I had lost all hope of having the face to face experience. Everyday I went, there was a new group of people - super excited to have the same experience I wanted and there I was-literally depressed thinking it is going to be the same as the last five days and having to go back home tonight with my dream unfulfilled. It started as usual with someone getting excited about seeing a blow, I remember not even rushing to get my mask this time because by this point I was sure what was about to happen. The first group jumped in and as usual the whales dived down and they didn't see anything. Few minutes later when the first group was back on the boat, the whales where once again circling the boat, there were three of them this time. Clever creatures! I thought to myself. As my group got ready to jump in something different happened that had not happened before. One of the whales swam toward the boat (usually the boat would slowly approach them). Not only did the whale get very close he or she turned upside down and started waving the flippers out the water. It was almost unreal. That moment I knew in my heart that this was it! They want us to get in. We slipped into the water as silently as possible.

I looked around and saw them in the distance below, I waited and it

was as though time stood still- the whale got closer and closer and shallower, I had to kick back because the whale came from right under me and broke the surface of the water. It was in this moment I met eye to eye with the whale. I have read about this connection people have had when they look into the eye of a whale, words cannot describe the feeling, all I know is that in that moment there was no other thought in my head, just this whale almost saying hello to me and me saying 'hi' back, yet no words were said. In the background I could hear my group shouting with excitement as the other two whales joined in to literally come check us out!

It was unreal! they were massive, seeing them from the boat and below was one thing, seeing them at eye level was the most memorable experience I have had to date. they just stayed with us playing rolling around mimicking our actions with their flippers – I realized how intellectual they are and how so much like us they are. Shivering in the water, the last memory I have was my guide pulling me back swimming to the boat saying "it's time to go now, it's been an hour. You will get hypothermia as you are shivering so much," I obviously didn't want to leave.

Hunted close to extinction, the humpback whale population has only just started to pick up, now threatened by the warming oceans and deadly plastic being dumped into the oceans, these amazing creatures as well as others that live in the sea are threatened by humans and human activity. we need to make wise choices about what we buy and what we use in today's world if we want these beautiful creatures to be here in the years to come.







TRAVELOGUE



Estela's university education was in history, and her passion is conservation of historical and cultural sites. She enjoys visitng many of of the world's most significant cultural sites.

Estela practices law in Lisbon, Portugal.

facebook.com/estela.canaveira

Machu Picchu has been designated as one of the wonders among the world's most special cultural sites. A truely magical place Machu Picchu was created by the Incas, a confederation of tribes that created the first multicultural society of Peru.They started a slow expansion in the 8th century but only in the 15th century took total control over other neighboring territories, creating one of the largest empires in the world. Machu Picchu is constructed of granite blocks, at an altitude of 2,350 meters in the middle of Pervian Andes. This city, built in terraces, displays an intricate stone work of huge granite blocks perfectly fitting each other without the need of cement. No other civilization has constructed such precicely cut granite building blocks.

The agricultural terraces were carved into the slopes and provided food for an estimated 1,000 persons. Archeological scholars think that Machu Picchu was abandoned, but the reason is still a mystery. They suggest that it was a place of worship, from where it was possible to follow the stars route and that it was also the house of Pachacuti, the 9th Inca emperor. The Spanish arrived in Peru in 1524 and conquered the Inca empire in 1541, greedly searching for gold and in the process destroyed this brilliant civilization. The Spanish conquerors colonized Peru, introduced the Spanish language, the Catholic religion and also the feudal government system. In the 19th century the libertarian ideals of José de San Martin and Símon Bolívar led to





the independence of Peru from Spain in 1821. Machu Picchu remained hidden and unknow to Europenas because of its high location in the Andes. Or, perhaps the Incas were successful in keeping the location of Machu Picchu a secret.

In 1911 Professor Hiram Bingham, the explorer and archeologist from Yale University was guided to Machu Picchu by Melchor Arteaga, a local farmer. Although covered by dense vegetation, Bingham was impressed with the discovery. He wrote in his diary: "Would anyone believe what I have found?" He called the place, in his first book, the "Lost City of Incas". Bingham expedition was not only sponsered by Yale University but also by

the National Geographic Society which published a special edition about Machu Picchu in 1913 with 186 pages and many photographs. After the discovery, Machu Picchu became an interesting historical site for professors, archeologists and curious travelers to study. Tourism in Peru started to grow after 1990, helped by the economic stability and the construction of roads and infrastructures. Tourism is now the third most important industry of the country and Machu Picchu it's number one attraction. According to the government of Peru, in 2015 the country received 3.5 million tourists, and that number represents an increase of 7.5% from 2014. From those 3.5 million, more than 600,000 have visited Machu Picchu.

In 1983 the United Nations's UNESCO program designated Machu Picchu a World Heritage Site. UNESCO describes Machu Picchu as: "The approximately 200 structures making up this outstanding religious, cerimonial, astronomical and agricultural center set in a steep ridge, crisscrossed by stone terraces. Following a rigorous plan the city is divided into a lower and upper part, separating the farming from residential áreas, with a large square between the two. Very special building complexes inclued, "The Temple of the Sun," "Royal Mausoleum," and "Royal Residence." To this day, many of Machu Picchu's mysteries remain unresolved, including the exact role it may have played in the

Incas's sophisticated understanding of astronomy and domestication of wild plant species. UNESCO gives also great value to the authenticity of the ruins. "The abandonment of the Historic Sanctuary of Machu Picchu at the beggining of the sixteenth century, the vegetation growth and the isolation of the place ensured the conservation of the architecture! Although the materials and the structures suffered slight damages, that did not change the authenticity conditions."

Located at 2,430 meters in the middle of a tropical mountain forest Machu Picchu is an extraordinary beautiful setting. A rich diversity of fauna and flora live in the surrounding forests. Machu Picchu is also a place with outstanding universal cultural values, because of the great artistic, architectural and land use achievments and a fundamental legacy from the Inca civilization. Also, after the discovery of Machu Picchu in 1911 by western scholars, the archeological excavations that took place there have followed the best pratices and international standards, that contributed to the maintenance of the true characteristics of Machu Picchu. The protection of this place is also a great concern. The state-owned Historic Sanctuary of Machu Picchu is an integral part of Peru protected areas system and has legal protection for being a cultural and natural heritage.

There are many dangers to the conservation of Machu Picchu:

Tourism

Every day the tourists become more numerous, despite the fact of Machu Picchu not being an easy place to get to. Specially after the classification as an heritage site from UNESCO (1983), the number grows every year. Daily, Machu Picchu receives about 2,500 persons, the maximun number permited by law. But even this number fragilizes the 600 plus year old buildings and helps to destabalize the natural geological setting. Tourism can be the best or the worst thing to the patrimony. When the United Nation's Convention dedicated to the protection of world natural and cultural patrimony was signed in 1972, the issue of tourism was not a problem yet. Nowadays, tourism is an industry that yields millions of dollars to local economies and the word globe-trotters

entered our vocabulary.

Tourism have not, naturally, only bad consequences. It enabled the protection of many historic sites from abandon and forgetfulness. But mass tourism is really a menace for historic or natural places because the superexploitation have as consequence the degradation of this kind of places. The fame and success of sites like Machu Picchu (2,500 persons a day) or Venice (60,000 persons a day) has truly endangered those places. It's urgent to rethink tourism in a more respectfull way that could avoid the "Disneylandisation" of the world patrimony. A challenge that the countries have dificulty to tackle because they don't want to live without this important income.

The weather can be also a concern.

Torrential rains, floodings, landslides and earthquakes are common problems in the area of Machu Picchu. UNESCO is permanently following all that happens in the heritage site. In the UNESCO internet site we can see the main problems that affect this historical place each year, since UNESCO included it in its list of heritage sites (1983). The prevention is, in this situations, very important.

Heritage Protection

Being listed as a World Heritage sites is important but does not solve the problems of money needed to maintain the historic places. One of the solutions for preservation is private patronage. It seems that the contribution from tourism could be enough to supply the outgoing flow with the conservation, but







it's not. Today, technology is an essential conservation tool, but it's not cheap.
Technology is needed for the surveillance of the protected places, and also to assure the effectiveness of protection mesures.

Non governamental organizations
World Monuments Fund (WMF), Global
Heritage Fund (GHF) and Europa Nostra
help the protection of patrimony through
the contributions from general people
through their internet sites.

UNESCO has several partnerships with the European Space Agency (ESA) and the United State's National Aeronautical Space Agency (NASA) for satellite images that provide vital up to date information about the degradation that affects the cultural and natural sites and the efficiency of the protection measures. Satellites are also useful to quantify the impact of climate change. In the specific case of Machu Picchu, satellite images help to study environmental changes that can threaten the ancient city.

Another contribution to the protection of the endangered sites is the Global Heritage Network. Since 2011, this digital platform provided all the internauts with the satelite images of 500 endangered historical sites.

Conservation is the key word to preserve these great heritage cultural and natural sites. The menaces are uncountable. We have mentioned only a few but the global heritage is always in a fragile situation. The tragic destruction of some sites, for political or religious reasons, like the Bamyan Buddhas (Afganisthan) or the ancient cities like Palmyra (Syria); the pollution that affects the surface of some monuments like the Taj Mahal (India); the robbery of museums during political instability in Tunisia, Egypt, Lybia, Iraq and Syria. UNESCO now lists 936 World Heritage Sites in 153 countries. 725 are of cultural importance, 183 are of natural heritage and 28 have both cultural and natural significance.

Thirty-five World Heritage Sites are listed as endangered. Over these sites there is a threat to its integrity or its conservation, or the countries where this sites are can't solve the problems concerning them. This list points out what to do urgently in this places. Sometimes the countries don't like to see their sites in this list, because they are responsible for them and this is not well seen.

In case of civil wars and conflicts between states UNESCO has at its disposal some legal tools like Haia Convention(Hague 1954). This Convention autorizes UNESCO to comunicate with the belligerent countries. UNESCO has another tool which is the Convention against Illicit Traffic of Antiques.

The possible degration of Machu Picchu is real. The site constitutes one of the few witnesses of a civilization still wrapped in mystery. So, we have to pay attention, not only to Machu Picchu, but to all cultural and historic remaining sites that are constantly threatened.

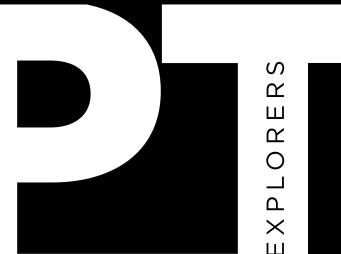
See: www.Machupicchu.org, and The Machu Picchu Guidebook- A Self-Guided Tour by Ruth Wright, and Dr. Alfredo Valencia Zegarra, 2008, Johnson Books, Boulder Colorado, US





WILD ARTS SHOWCASE

By Hank Tyler







Mahesh Jangam is one of India's upcoming wildlife artists. He operates the Bandhavgarh School of Art and Art Gallery.

See: Facebook/Bandhavgarh School of Art and Gallery
Facebook/Mahesh Jangam Bandhavgarh
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As a young boy in India, Mahesh always enjoyed drawing and painting. He fell in love with painting and wildlife. His parents encouraged his interest in drawing, especially his father. In grades 11 and 12 he took classes in sketching. As a teenager Mahesh became involved with a group of artists and learned new artistic skills from other artists. In a sense, he is self-taught.

Mahesh was born in Ranthambhore National Park in 1983 and grew up surrounded by nature, especially tigers, leopards and elephants. In 1998 his group of artists had an auction of their paintings in the Mall Gallery in London.

In 2003, he began his commercial artistic career with 9 inches by 12 inches tiger paintings. The subject was a tiger called "Bamboora" in the local zoo that he used as a model.

When Mahesh was beginning his artistic career, he had limited equipment and studied animals in a zoo near his home. At this stage, he would simply





sketch monkeys, leopards and tigers. Commercial success allowed him to acquire binoculars and digital camera with telephoto lens. Nikon gear is his camera equipment.

In 2008, Mahesh began operating his combined Bandhavgarh School of Art and Art Gallery in a village adjacent to Bandhavgarh National Park in Madhya Pradesh. Mahesh donates his time to the Art School, and children from nearby and regional schools receive free art and painting instructions from Mahesh

Bandhavgarh National Park is one of India's major protected areas for tigers. The core National Park is 105 square km, and with surrounding buffer zone brings the total sanctuary zone to 820 square km. Bandhavgarh has large populations of leopards and one of the highest tiger populations in India. The zones of Tali, Magdhi and Khitauli comprise the richest land for biodiversity and form the core of the tiger reserve. Moist deciduous forests cover much of the national park. An estimated 100 tigers live here. Visitors often see tigers when visiting the national park.

Mahesh offers free art classes to school children from surrounding communities. He is inspired to share his enthusiasm for wildlife art with the hope of stimulating and training future wildlife artists.

Financial success has come to Mahesh and his family. A wide range of his painting are displayed at his gallery, and strong sales have enabled him to devote some of his time to teaching local children. His goal is to introduce the concept of wildlife conservation and the value of large mammals to the ecosystems of India's national parks.

Very large size paintings covering more than four square meters are his format. Mahesh says "the larger the better to display the power of tigers."

Ideas for tigers begin with pencil sketches. Paints are finished in either watercolors, acrylic or oils. Watercolors are his favorite media for painting. Most paintings are on canvas.

In 2015, Mahesh was invited to participate in "Art for Nature - Nepal" an international gathering of thirty artists in Chitwan National Park on the Indian border. Artworks from this symposium benefited Nepal's National Park system.

Mahesh is a regular contributor and participant in the annual David Shepard Foundation annual wildlife art contest.

Good fortune shined on Mahesh in 2017. The painting "Blue eyed Tiger" was selected to hang in the President's House in New Delhi. His painting "Blue Eyes" was included in a June 2017exhibition at the David Shepard Foundation wildlife art contest held in the Mall Gallery in London, England.

At age thirty-five, Mahesh is very happy with his Art School and Art Gallery that supports his family which includes four-year-old daughter Lavanya and one year old son Jai as well as giving him spare time to donate to the local children.







YOUR GALLERY



Saurabh Chakraborty

Jungle Cat (Felis chaus)

Location: Sundarban Tiger Reserve, West Bengal, India.



YOUR GALLERY

Amith Vaprath

Malabar flying frog (*Rhacophorus malabaricus*) Location: Western Ghats, India.



YOUR GALLERY

Amith Bhavikatti
Serval Cat (Leptailurus serval)

Location: Masai Mara, Kenya.



YOUR GALLERY

Munib Chaudry

African pygmy falcon (Poli

African pygmy falcon (*Polihierax semitorquatus*) Location: Buffalo Springs National Reserve, Kenya.



YOUR GALLERY

EXPLORERS

Sasikiran Vals

Tiger (Panthera tigris)

Location: Tadoba National Park, Maharashtra, India.



YOUR GALLERY

Prasenjit Choudhury

Himalayan Black Bear (Ursus thibetanus laniger) Location: Dachigam National Park, Jammu & Kashmir, India.



YOUR GALLERY

EXPLORER

Haarish Mohammed

Indian Nightjar (Caprimulgus asiaticus) Location: Near TAPMI, Manipal, Karnataka, India.



YOUR GALLERY

EXPLORERS

Kaushik Vijayan
Shrike (*Laniidae*)
Location: Jubail, Saudi Arabia.



YOUR GALLERY



Kanishka Sarangi
Oriental White Eye (*Zosterops palpebrosus*)
Location: Bangalore, India.



UPCOMING FEATURES



INTO THE WILD WITH TODD GUSTAFSON

By Peter Hudson



GREAT HORNBILL

By Hermis Haridas



INDIA'S PROTECTED LANDS

By Amrita Das