

# REI

EXPLORERS

JUN 2022 / JUL 2022

INTO THE OCEAN  
WITH RYAN SAULT

URBAN TREES, PUBLIC AND PRIVATE TREES  
BY FRANCISCO REBOLLO PAZ



# CONTENTS



© Debora Azevedo Lacerda



© Gustavo Costa

## EDITOR'S DEN

Welcome to PT Explorers  
By Hank Tyler **004**

## FOUNDERS' NOTE

By Nisha Purushothaman  
& Hermis Haridas **006**

## COVER STORY

Into The Ocean  
with Ryan Sault **008**

## CONSERVATION STORY

Urban Trees, Public and  
Private trees.  
By Francisco Rebollo Paz. **044**

## THE SPECIES

Sauvage Snail-eater Snake in Brazil  
By Julia Mayumi **074**

## CUB'S CORNER

Nature Through My Eyes  
Shannon Edward **098**

## HER VIEWS & VISUAS

By Dinorah Graue **110**

## TRAVELOGUE

Birdwatching in Rio de Janeiro, Brazil  
By Debora Azevedo Lacerda **138**

## THROUGH THE LENS

The Mexican Sardine Run  
By Gustavo Costa **174**

## TIPS AND TRICKS

Photographing Wildlife at Night  
By Emmanuel Commiso **204**

## WILD ARTS SHOWCASE

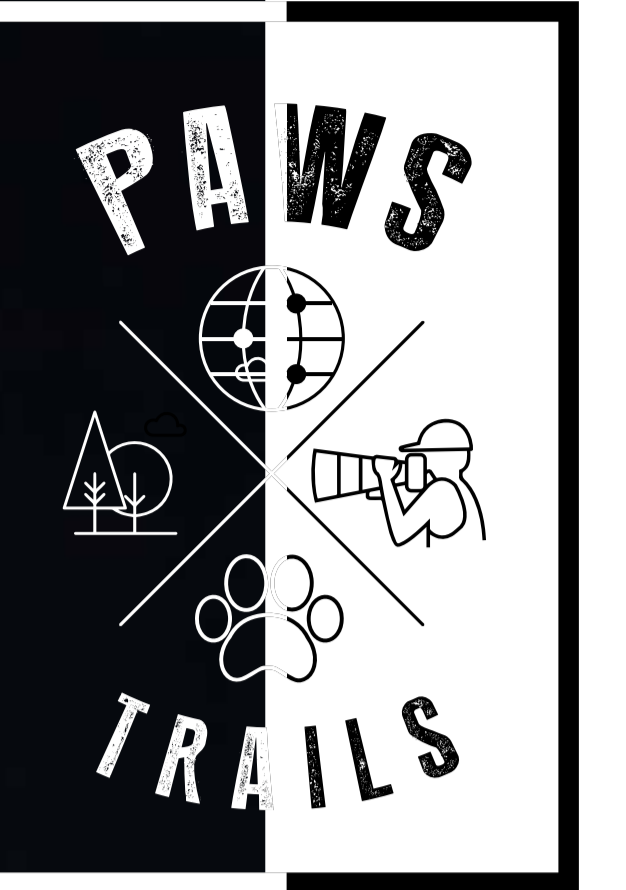
Nature and Colors  
By Mrinmay Sebastian **228**

## YOUR GALLERY

**252**

# 008

Cover Story  
Ryan Sault



Publisher: Paws Trails Explorers Editors: Hank Tyler, D.D. Tyler, Associate Editor: Raghul Patteri  
Content Director: Nisha Purushothaman, Director Photography: Hermis Haridas, Design Desk: Nithya Purushothaman  
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Hank Tyler  
Editor

We are pleased to have two marine life articles in this volume. Australian photographer Ryan Sault focuses on the Grey Nurse Shark along Australia's east coast where he also captures stunning photos of Great Cuttlefish, Manatees and Manta Rays. In the eastern Pacific, off Baja California in Mexico, Gustavo Costa takes us underwater for his dramatic photos of the Striped Marlin attacking swirling balls of sardines as well as spotting Humpback Whales and Bottle Nose Dolphins.

Arborist, Francisco Rebollo Paz shows us his magnificent flowers of native trees growing in Buenos Aires, Argentina, and tells a compelling story of appreciating trees and protect trees.

Julia Mayumi, a Brazilian herpetologist at the Butantan Institute tells her story of studying and searching for snakes in São Paulo State. The Sauvage Snail-eater Snake is one of the special snakes Julia has studied.

Emmanuel Commiso from Argentina explains his special techniques for capturing amazing images of animals at night.- foxes and nightjars.

Nature photographer Debora Lacerda in our Travelogue section takes us to Rio de Janeiro, Brazil where she features 21 magnificent photos of birds.

Mexican nature photographer Dinorah Graue tells her story of living in Costa Rica among the many National Parks and protected lands.

In Cubs Corner, eight year old Shannon Edwards from Dubai showcases her nature paintings.

WildArts tells Mrinmay Sebastian's story of a self educated artist from India and now living in Dubai, and focusing her art on wildlife and flowers.

Your Gallery is the spot where we feature outstanding wildlife photos from our readers and nature photographers. Every volume has an amazing display of wildlife photography from around the world. Please submit your most outstanding wildlife photo so we can share with our viewers in future volumes.



PHOTOGRAPHY DIRECTOR'S CHOICE



Dr. K. M. ANAND  
Great Indian bustard  
(*Ardeotis nigriceps*)  
India



# FOUNDERS' NOTE

Welcome to this edition of PT Explorers.

In this edition, we bring you stories and amazing images from around the world. If you look through our cover story, you will see what it takes to get a good underwater picture.

Skill, adventure, equipment, preparation, research – the list can go long. How many people ever take up Suba diving!

We are indeed blessed to work with such dedicated, wonderful photographers and researchers who have consistently been going the extra mile to hone their skills.

We consider it our honour to be able to publish your work and spread the word on conservation among the masses.

To our readers, we pray that these articles and photographers help you come closer to nature and fall in love with our fellow beings.

Getting closer to nature and becoming the voice for the voiceless creatures, this will make the earth a better planet and even make our own lives more meaningful.

Let us keep working towards a better planet!

Thanks again to all the contributors for this edition.

Let us take the pledge for a greener future!

**Hermis Haridas & Nisha Purushothaman**

Founders - PT Explorers





COVER STORY

# Into The Ocean

with Ryan Sault



Giant Cuttlefish (*Sepia apama*)



Manatees (*Trichechus manatus*)

Ryan is a gifted underwater photographer from Australia. The love for the world underwater was inherited from his father who used to share the experiences of his dives with Ryan.

On growing up and allowed to dive, Ryan soon picked up a camera and started documenting the marvelous sights of that hidden world.

He is especially fond of the Grey Nurse Sharks, an endangered species found in the east coast of Australia.

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Great White Shark (*Carcharodon carcharias*)





Grey Nurse Shark (*Carcharias taurus*)

© Ryan Sault

### **How did you get interested in underwater photography?**

As a child I used to sit on the shore and watch my father descend beneath the waves. He would emerge soon after full of tales about the unique and awe-inspiring creatures below, underwater spiders, intricate coral, rainbow coloured fish, and of course, sharks.

For years I begged to go with him, but I wasn't yet old enough for scuba. But, on my 13th birthday I was gifted a scuba diving course and was finally able to accompany him on his adventures. I was blown away by what I discovered beneath the waves!

It wasn't long before I picked up an underwater camera and started documenting what I saw in the underwater world. My first camera wasn't expensive, it was one of the early GoPro's, and my photos and footage were pretty substandard, to say the least. But I enjoyed sharing and, with the support of my family and friends, my love for underwater photography bloomed. It did not take long before I had a DSLR in my hand and was travelling the globe and photographing the incredible wildlife that inhabits the Ocean.

### **What gear do you need to dive and shoot, all the way from the wetsuit to the camera?**

Firstly, SCUBA gear that is appropriate for the conditions; so, the right wetsuit for the temperature, regulator, BCD, tank, fins, mask, gloves, hood, weights etc. I also have additional equipment for solo diving. Everything needs to be streamlined and comfortable in the water and you need to make sure it isn't going to get in the way of your camera.





Great White Shark (*Carcharodon carcharias*)



Secondly, my photography gear: I use a Nikon D750 camera and Ikelite housing with an 8 Inch dome and ultra-wide zoom or fisheye lens (underwater photography is all up close and personal), dual strobes for lighting, and video lights for night diving.

**What are the major challenges you have faced in underwater photography?**

The COVID pandemic was very challenging, as most people know. I couldn't get in the water for a very long time. However, it forced me to focus more on my editing skills and go back through some of my archives.

**Can you tell us about one of your most exciting underwater experiences?**

On a recent dive I met an extremely friendly 11ft tiger shark named Patrick. Sharks have the ability to sense minute electrical signals given off by fish and other prey items. This helps them hunt at close range. You can imagine the electrical signals my camera and strobe light would give off under the water. It must have become a real object of interest for Patrick. There were a few times when I had to politely push Patrick away.

**When did you first dive with sharks?  
How did you manage to overcome your fears?**

My first dive with sharks was around the age of 13. It was a dive with grey nurse sharks (also known as sand tiger sharks). I've never really had a fear of sharks, only a healthy respect and from day one I have always felt an excitement around them.



© Ryan Sault

Grey Nurse Shark (*Carcharias taurus*)





Grey Nurse Shark (*Carcharias taurus*)





Manatees (*Trichechus manatus*)





Mako Shark (*Isurus oxyrinchus*)

**What is the best and worst thing about underwater photography?**

The best thing would be all the amazing things you get to see down there. You never know what is going to show up and everything is always a surprise. The worst part would have to be the hours of preparation, clean up and maintenance involved with diving.

Backscatter is also a pain for every underwater photographer. This is small particulates in the water that get between you and your subject effecting image quality. Plankton, algae, sand, etc. The best way to avoid backscatter is to minimise the distance between you and your subject. You have to get close... very close. Within 1m is good, within centimetres is better.

**What is your favourite dive destination and why?**

A site close to my family home has, and always will, hold a special place in my heart. It's where I learnt to dive, and it's where I had some of my first encounters with sharks. I've dived there countless times and each brings something new and exciting. I hope I get to dive there many more times.

It is also a congregation site for the critically endangered east coast population of grey nurse sharks. I always love visiting them. Only 1200 individuals remain.

**What are the specific skills required to photograph big fish?**

Patience is a big requirement for photographing any animal. Sharks are









Manta Rays (*Manta birostris*)



surprisingly skittish and if you approach them, they will most likely leave. So, you need to wait for them to come to you.

Persistence is another skill needed. You only have a finite amount of air. So, if you don't capture what you were after, you need to go back again, and again, until you do.

Proficiency would be another skill because you have to be able to take advantage of an opportunity when it arises.

**Wide-angle or macro? What type of diving and photography excites you most?**

Wide-angle for sure. Most of the subjects I enjoy photographing are large. I like interacting with animals like sharks (obviously), sea lions, manta rays etc. I also don't have the concentration to focus on small objects for extended periods of time ha-ha. As for the type of diving that excites me... any type. As long as I am in the water, I'm enjoying myself.

**What do you look for when you are making your images?**

Something that is visually stunning and creates emotion. I want people to be in awe of the object I've chosen to photograph.

**What message do you hope to convey through your photography?**

I just love showing people what the underwater world is like and how amazing sharks are.

**How do you think underwater**

**photography can help contribute to the ongoing efforts to protect our oceans and marine life?**

Showing people photos of the underwater world encourages them to want to protect its beauty and unique species. People won't want to protect what they can't see.

**Are you involved in any conservation work outside of photography?**

I worked a lot with a citizen science group called Grey Nurse Shark Watch. It helps protect the critically endangered population of grey nurse sharks on Australia's East Coast. There are only about 1200 of these sharks left and this group is working to track the population through photo identification using the unique spot pattern on the side of each individual.

**The locations and species on your bucket list that you haven't had a chance to photograph yet?**

There are so many. I'd love to photograph salmon sharks in Alaska or the incredibly cute thresher shark in the Philippines. I would also go anywhere in the world to photograph orcas.

**Where will your next adventure take you?**

I'm about to spend some time in Cabo San Lucas on Mexico's Baja Peninsula. I have two months there so hopefully I'll come out with some interesting photos

**Have you ever photographed terrestrial animals? What was your favourite land-based trip or animal encounter?**



Boreal Woodland Caribou (*Rangifer tarandus caribou*)





Manta Rays (*Manta birostris*)



I lived in Canada for four years and had a real fascination with mountain caribou. They are always such a regal subject to photograph. I spent five days hiking in the Canadian backcountry trying to find a herd. I did get lucky on the last day and spent an hour photographing them.

**Could you share with us some tips for taking good underwater photos for beginners?**

The best camera to start with is the one you have. I started out with one of the early GoPros on a stick and over the years I have upgraded to where I am now. My biggest tip would be the patience and persistence I mentioned earlier. You can get some brilliant shots, no matter what camera you have.

**Tell us more about the Grey Nurse Shark**

The story of the Grey Nurse Shark will tug on your heart strings, you have been warned!!

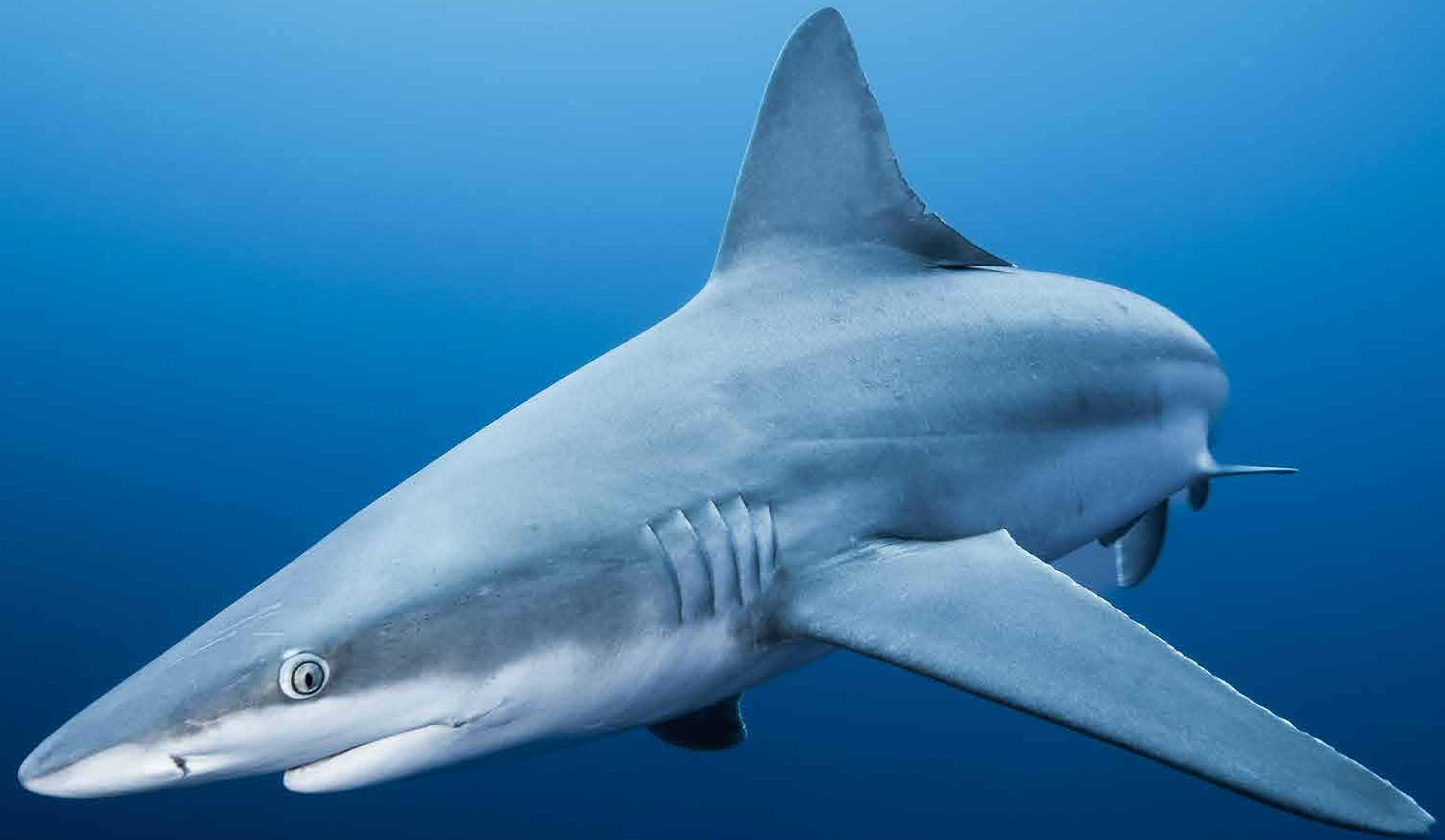
It all started when a man was bitten by a shark on the west coast of Australia in 1963....

The bite occurred during a spear fishing tournament. The man's wound was very severe, but he did survive. A Great White was "blamed" for the bite however carrying dead fish around with you in the ocean has inherent risks.

The man was angry and wanted revenge.

I need to quickly step back and tell you a little about the grey nurse shark. They are quite large with adults reaching 3.5m (11ft).

Sandbar Shark (*Carcharhinus plumbeus*)



© Ryan Sault





Their body is sleek with a beautiful long tail, which they use like a whip to stun and capture small prey. Their needle like teeth, which spill out of their lower jaw, are used to capture, and hold their prey such as squid, rays, and fish. They are not equipped with the right teeth or jaw to hunt anything big. They are not aggressive towards humans.

Grey nurse sharks hunt at night, and during the day they congregate in large

groups, normally around rocky outcrops just offshore. During this time, they “sleep”, basically they enter a relaxed and passive state. Anyone can dive with them safely without fear.

The man that was bitten was not picky which sharks received his wrath. Once he had healed, he formed a group to hunt the sharks. They equipped themselves with “power heads”, explosive tipped spears, and swam out to the

congregation site. The decimation was immense and unrelenting. When they ran out of spears, they used knives, yes, they swam down and stabbed the sharks to death. They yelled “even one shark is too many” “a good shark is a dead shark” “the hunter becomes the hunted, revenge is sweet”.

The men were heralded as heroes, they were branded as “Shark Fighters”, won awards, were featured in books and

magazines, and even a movie was made. Meanwhile, the population of sharks collapsed, pushing the Australian grey nurse to the brink of extinction.

The popularity of the “Shark Fighters” attracted the attention of the global media. Everyone wanted footage of the man-eating monsters. “Sharks sell very well”, “we want to put sharks into everyone’s living room”.









© Ryan Sault

A new underwater videography industry was created which, in an almost perverse twist of fate, led to the invention/perfection of the shark cage. Divers could now enter the water and observe sharks without fear.

All the additional time in the water gave the “Shark Fighters” a better understanding of the shark’s behaviour and they soon realised they were not man eaters. The new revenue streams from underwater videography, and later tourism, tied their fates to that of the sharks.

The “Shark Fighters” stopped killing and slowly turned to conservation. Fast forward to the present day. The man who was bitten at the very start of this story, was Rodney Fox. He is now regarded as a prominent shark conservationist.

He sits alongside Ron and Valerie Taylor, two other “Shark Fighters” and their research has now helped people understand the importance and fragility of the shark’s population in Australia.

The Grey Nurse Shark was listed as endangered which opened up new regulatory and funding options to help protect the species. Monitoring and tracking of the Grey Nurse have allowed scientists to identify and protect congregation and breeding sites whilst tracking population numbers. The recovery is slow, but it is increasing! Even today only 1300 Grey Nurse Sharks roam up and down the east coast of Australia. However, with continued efforts it is believed the species will survive. There is hope!

I will let you draw your own conclusion as to the moral of this story. I hope that it includes the concepts of ignorance and education. I also hope you now have a better understanding of what sharks have faced, and still face, in the world today.





Australian Sea Lion (*Neophoca cinerea*)



CONSERVATION

# URBAN TREES, Public and Private trees.

By Francisco Rebollo Paz.

Umbra Tree (*Phytolacca dioica*)

© Francisco Rebollo Paz.





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**Francisco Rebollo Paz is a Technician in Agricultural Production University (UCA - 1996) with a Postgraduate course in Dynamic Restoration of the Biodiversity (Argentine Native Forest Foundation - UNAM - 2018) and a Professional Photographer.**

**Since 2001 until the present he has dedicated himself to landscaping (promoting the use of native species) and in the last ten years he has been making use of his knowledge to conservation and the environment in the public space area, urban trees and the re-composition of degraded environments.**

**Since 1993 he has been dedicating to Artistic Photography, relating his work to showing nature in its purest form.**

**[instagram.com/arboles\\_nativos/](https://www.instagram.com/arboles_nativos/)  
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Umbra Tree (*Phytolacca dioica*)





Yellow Jacaranda (*Peltophorum dubium*)



Bottle Tree (*Ceiba chodatii*)



Talking about Urban Forestry is to think about conserving or incorporating selective tree species into cities.

Conserving means to protect the existing trees in the city, to preserve those ancient living beings that surround us, giving them the status of Historic Trees, Remarkable Trees or another nomenclature that protects them for life. Incorporating means we must continue planting trees to neutralize the impact of the city on the environment and the impact of climate change around us.

Under the statement that all trees are good, there are no “good trees” or “bad trees”, we have to study and analyze the benefit or impact of each of these species on the environment that surrounds us.

Knowing that all trees produce oxygen and fixate carbon dioxide, moderating climate change as well as knowing that all of them provide shadow to people and buildings, that they reduce the room temperature, that they very much benefit urban biodiversity, that they filter odors, dust, reduce annoying noises and protect us from strong winds when planted as shelterbelts, that absorb rainwater and retain rainwater on the top the tree and that they reduce the speed with which rainwater and hail reach the ground.

Likewise, if we stop to analyze that indirect benefits are obtained from it such as the incorporation or conservation of permeable soil in cities and that they increase the real estate value of properties, we could conclude that they are all positive ideas.



© Francisco Rebollo Paz.

Bottle Tree (*Ceiba chodatii*)



Umbra Tree (*Phytolacca dioica*)



© Francisco Rebollo Paz.



Brazilian Orchid Tree (*Bauhinia forficata*)

© Francisco Rebollo Paz.







As well, in this matter we can find different exceptions. Without losing sight of the initial statement that “all trees are good”, both native (specific to each region) and exotic (introduced by people from other regions), we must analyze thoroughly and establish statistics about species of exotic trees that become wild and invasive.

A species becomes wild when they are introduced into a region from which it is not native and finds climate, soil and conditions that lead to its reproduction and propagation. If the expansion of this species reaches the point of invading territories, preventing the development of other native species of trees and typical wildlife of the region, it does not only modify ecosystems, but it also changes enormously the biodiversity.

Birds, mammals, reptiles, insects and other wild animals will be altered by the presence of exotic and invasive species that are not the usual ones in their ecosystem, causing them to disperse and move away from each region in search of food and shelter.

Therefore, we could definitely say that “all trees are good” but each one in its ecoregion or in neighboring regions where part of the biodiversity is shared.

Previously, we stated that the native wildlife that coexist with urban and peri-urban trees since they act as a thermometer that will tell us if we are doing things right or wrong in our ecosystems’ management.

The presence of different species of



© Francisco Rebollo Paz.

Anacahuita (*Blepharocalyx salicifolius*)





Blue Jacaranda (*Jacaranda mimosifolia*)





Pacara Earpod Tree (*Enterolobium contortisiliquum*)



butterflies, hummingbirds and many other wild animals will let us know that we are on the right path, while in environments modified by the invasion of unknown species we will see the same scarce animal species as in a monoculture forest or in a treeless urban site.

If we could increase urban reforestation as a replacement of trees lining in the sidewalks in streets and avenues, boulevards and recreation areas, the incorporation of native species in the form of biodiversity corridors, micro-forests and the creation of urban reserves will undoubtedly lead us to a healthier life with the environment and will improve the quality of life of its habitants.

One of the main challenges of urban trees is trying to survive the ancient practice of pruning.

The practice of pruning dates back to the beginning of humanity, where the closest trees (private gardens, sidewalks and nearest parks) were pruned to obtain the nearest branches that at the beginning of the winter season would be useful to heat the houses as firewood. Hence, the myth of pruning in autumn is promoted in the collective unconscious.

For that reason, its more than understandable that for centuries until energy and gas began to be used to heat us, trees were pruned to generate firewood. The practice of pruning is in our DNA.

But do trees need pruning?  
Surely most people would agree that “they sprout stronger” but that is just another ingrained practice that comes

© Francisco Rebollo Paz.



Pink Trumpet Tree (*Handroanthus impetiginosa*)







from fruit trees.

Nature is wise! If we look at the trees, we can see that they all renew their leaves. The deciduous ones change them all together at a certain time of the year and the evergreen ones change them little by little throughout the year. But we do not know trees that change their branches or that drop all their branches periodically. This shows us that trees do NOT need pruning practices but rather it is a maneuver that we human beings carry out to adjust trees to urban life. It is neither more nor less than a practice for our convenience but that when carried out without technical and professional knowledge, harms the tree and can cause serious risk of injuries to people.

Informing ourselves and training us in urban tree management techniques, will give us the possibility of living in healthier cities but it will also protect us from possible accidents due to action or omission in the decisions we make regarding trees of the cities.

In the same way we would go to repair our car to a professional mechanic, to evaluate the resistance of the roof tile of our home we consult an engineer, to carry out urban tree management practices whether public or private we must consult professionals trained in the matter with their qualifying titles or their proven track record in the matter.

Reforesting cities and protecting existing urban forestry will give us the possibility of living in healthier and much more sustainable cities. Reconnecting with the environment will make us feel much better with our planet, with our fellow human beings and with ourselves.

Let's keep planting native trees!!

Floss Silk Tree (*Ceiba speciosa*)



© Francisco Rebollo Paz.









Floss Silk Tree (*Ceiba speciosa*)



SPECIES

# Sauvage Snail-eater Snake in Brazil

By Julia Mayumi

Edited By: Bruno F. Fiorillo

Photos by: Julia Mayumi &  
Bruno F. Fiorillo

Alcatrazes Lancehead (*Bothrops alcatraz*)





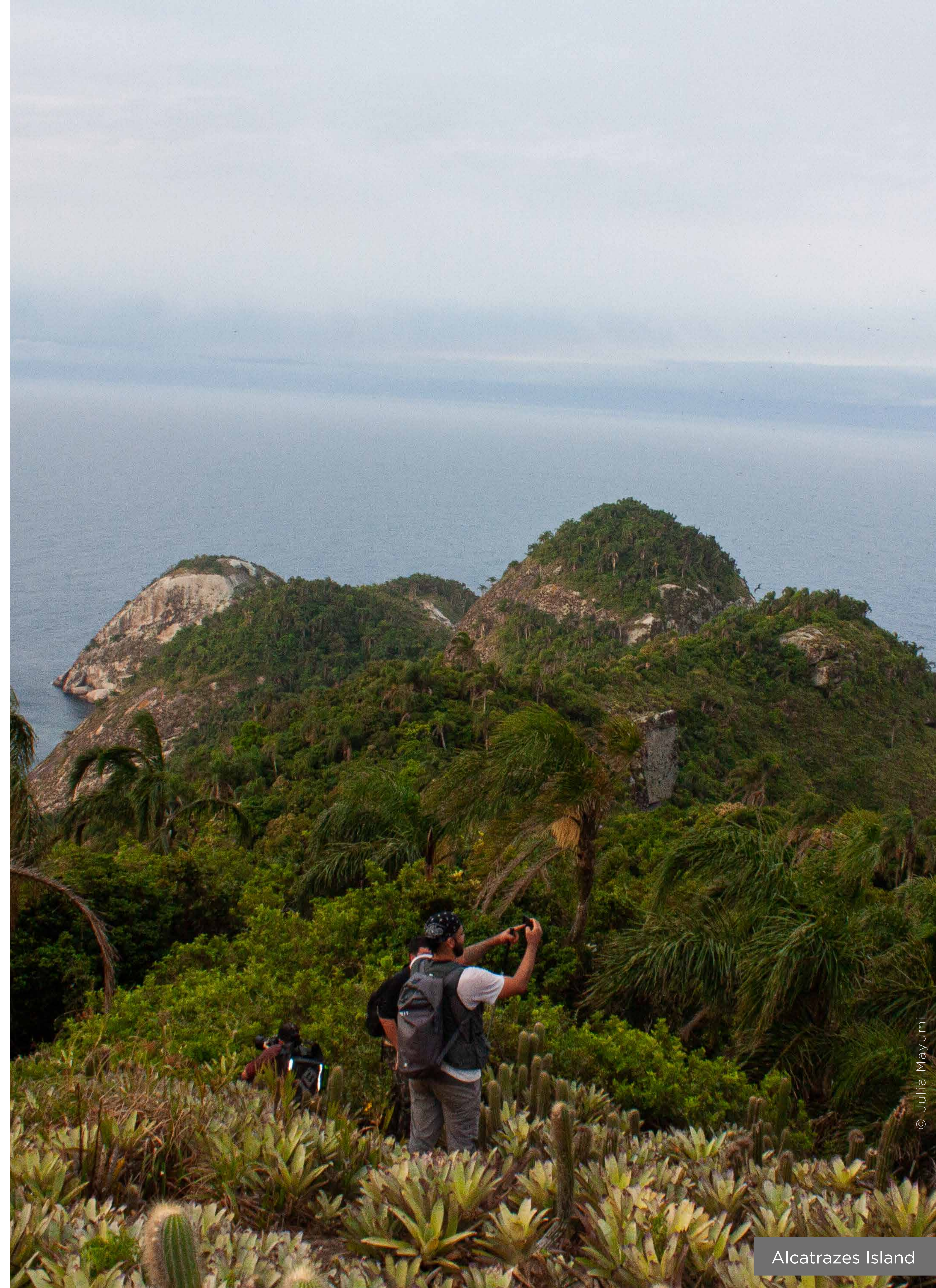
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**Julia Mayumi has always been passionate about animals, with a special fascination for snakes and frogs. She spent much of her childhood in contact with nature at her family's farm. As a teenager, she dreamed of working at the Butantan Institute, and with determination, she achieved her purpose. She is currently associated with the Laboratory of Zoological Collections of the Butantan Institute, and studies herpetology with an emphasis on systematics and evolution. After starting to photograph wildlife during her field trips, she discovered a new passion and always set aside time to dedicate herself to this craft.**

**[instagram.com/juliamayumi](https://www.instagram.com/juliamayumi)**

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The Atlantic Forest takes a lot of space in my heart. Its biodiversity has always fascinated me, especially the fauna. As it is impossible to work with all groups of animals, I had to prioritize a group and without much difficulty, I chose Herpetofauna. This scientific field worries about almost 12,000 species of reptiles and about 8,000 species of



Alcatrazes Island

© Julia Mayumi





Brown Sipo (*Chironius fuscus*)



amphibians according to the most used databases in the world (Reptile Database and Amphibians Species of the World respectively). These species are grouped into several taxonomic categories we call orders. Among reptiles, we have Crocodylians (alligators and crocodiles), Squamates (amphisbaenians, lizards, and snakes), Tuataras (lizard-like reptiles which currently present only one species distributed in New Zealand), and Turtles. Among amphibians, we have caecilians (snake-like amphibians), frogs, and salamanders. Of this much, the Atlantic Forest harbors about 540 amphibians and over 200 reptile species.

In the field of herpetology, several types of studies can be performed, including those on:

- **Venom:** these studies provide one of the possible perspectives of snakes' evolution (through proteomic research, like the project developed by Dr. Felipe Grazziotin, see below), besides the straightforward biological characterization of venom components and clinical aspects of envenomation. A popular and noble example of this research is that on the venom of the jararaca (*Bothrops jararaca*), which enabled the discovery and production of a drug that aims to treat high blood pressure, the captopril.
- **Ecology:** research field that covers a wide range of possibilities, from the study of animal behavior to the analysis of intra and interspecific interactions. Aspects of the natural history of species (where and how species live) are also frequently described.



Golden Lancehead (*Bothrops insularis*)





Jararaca (*Bothrops jararaca*)



- Genetics: from tissue samples (e.g., blood, scales, muscle fragments), it is possible to argue about the evolutionary history of a species or to make ecological inferences about a population, for instance, about its genetic status (whether it is stable or weakened).

Since I decided to become a herpetologist, I have had the opportunity to photograph the astonishing Brazilian fauna. To trip over any species in its natural habitat, from the smallest to the largest ones, from the harmless to the most venomous is a fantastic experience. Among my encounters, I consider that with the Ribeira Boa (*Corallus cropanii*) one of the most remarkable, since this is an extremely rare and endangered snake. Its distribution is restricted to Vale-do-Ribeira (São Paulo State), and it has spent decades without being found (since the 1950s). In 2017, an individual was found in the Guapiruvu neighborhood, in Sete Barras municipality (São Paulo State). Once the species is poorly known, having the opportunity to observe its behavior amid its habitat is something matchless. When I followed the study of this species, we spent afternoons, nights, and early mornings with our eyes dipped into binoculars and cameras, ready for new records. After I have gone, researchers who were conducting the data collection recorded the snake with its body hanging downwards, holding on to a branch for the last third of its body, waiting for a prey to have the misfortune to pass through. Such a branch formed a “little corridor” which was possibly used by small mammals (e.g., arboreal rodents, possums). The Ribeira Boa must have captured chemical signals (e.g., urine)



Jararacuçu (*Bothrops jararacussu*)

© Julia Mayumi





© Bruno Fiorillo

Sauvage's Snail-eater (*Dipsas albifrons*)

on that branch and then positioned itself for any opportunity of feeding. That is what we called a “sit-and-wait” foraging strategy and it is exactly what herpetologists yearn to see.

Another moment I will never forget was my first encounter with the Jararacussu (*Bothrops jararacussu*). A mixture of happiness, euphoria and a lot of adrenaline ran through my body, because despite working and knowing how to deal with such animals, a lot of caution is always necessary, especially in the field, where access to hospitals is usually tricky. We took about thirty minutes to capture the snake, which was approximately five feet long. It was striking (trying to bite) repeatedly and moving fast across the ground filled with roots and holes, which made it even more difficult to handle the snake. The fear of being bitten mixes with a feeling of anxiety about the possibility of losing an important specimen found at so much cost. Fortunately, we achieved that sample without accidents or injuries to the animal.

After meeting my current supervisor, Dr. Felipe Grazziotin, I started my story with these fantastic animals. Lucky for me, a big project was in the works. Funded by the São Paulo Research Foundation (FAPESP), the Scales of Biodiversity project accounts for several other researchers from the Butantan Institute, and a team of North American researchers. This study aims to investigate the evolution of snake venom glands in Brazil, Mexico, Costa Rica, and the United States, in order to reconstruct the evolutionary history of this enigmatic group and understand the relationship of



venom attributes to their prey.

Recently, Felipe and I chose my Scientific Initiation project, which will analyze the *evolution and systematics*<sup>1</sup> of *Dipsas albifrons*, popularly known as Sauvage Snail-eater, a slug-eating snake that has no venom and is commonly mistaken with the venomous snake Jararaca (*Bothrops jararaca*). Our objective is to infer the evolutionary processes that shaped the diversity of *Dipsas albifrons* through analyzes of genetic variability. Such studies aim to observe variations in alleles (variants of the same gene) that are responsible for granting the physiological and morphological characteristics of living beings

When we started to collect data on the Sauvage Snail-eaters in the Zoological Collection of the Instituto Butantan, we discovered that there were not so many samples from the subject of our study. We needed to collect specimens in three different locations, Alcatrazes Island, Queimada Grande Island, and Ubatuba municipality. We started the fieldwork on the coast of São Paulo where I had the pleasure of visiting the dreaded Ilha das Cobras (Queimada Grande Island). In expeditions to the Atlantic Forest, we do not usually find more than five snakes in a single night, however on Queimada Grande in a few hours of searching we observed more than thirty Golden Lanceheads (*Bothrops insularis*). It is an endemic (restricted to a single location) snake on the Island which has a yellowish color and a venom that evolved in response to its specialized diet of birds (unlike its mainland relatives that when adults prey mostly rodents). In Alcatrazes

Ribeira Boa (*Corallus cropanii*)







Spotted Leaf Frog (*Phasmahyla guttata*)





Serra Snake (*Tropidodryas serra*)

we found nine Alcatrazes lancehead (*Bothrops alcatraz*), a relatively high number when compared to those of expeditions carried out in the continental Atlantic Forest. Both islands are located about thirty-five kilometers off the coast of Itanhém municipality (Ilha da Queimada Grande) and São Sebastião municipality (Island of Alcatrazes).

Lacking only samples from the continent, we assembled a team made up of researchers from the Butantan Institute and three herpetologists, Rafael Menegucci, Rafael Mitsuo, and Lucas Ramiro, and started our expedition in Ubatuba (São Paulo state). The very touristic city has an extensive untouched area of Atlantic Forest. Its territory encompasses 102 beaches and 16 islands, which offer various leisure activities (surfing, diving, bird watching, fishing, among others) and attracts tourists from all over the world.

There were lots of eyes looking for Sauvage Snail-eater that day, however, that didn't free us from the obstacles of the weather. It was a cold night, and it rained a lot (those rains that flood wellies). Even so, for that region, we found a relatively large number of individuals for some species. Among the snakes, five Brown Sipo (*Chironius fuscus*) and one Jararacuçu (*Bothrops jararacussu*), both species are common in Ubatuba. Among amphibians, the Split-Backed Frog (*Fritziana cf. fissilis.*), one of the few frogs that carry their young on their back during their developmental period (marsupial frogs), the Spotted Leaf Frog (*Phasmahyla guttata*), and an Ocellated Treefrog (*Itapotihyla*



*langsdorffii*). Unfortunately, we couldn't find the snake we were looking for.

Eight months later, we scheduled a new expedition in search of Sauvage Snail-eater. After a light rain, the swamps became noisy, and several species of amphibians called at the foothills of the Serra do Mar mountains. After a few hours of unsuccessfully searching, I stopped to rest. With an unassuming movement, I poked a tuft of grass to discover a young Jararacuçu (*Bothrops jararacussu*). It didn't take long and a few meters later I found another snake of the same genus, a pit viper (*Bothrops jararaca*) curled up in a tree about 60 cm from the ground. I didn't think I could be happier during this trip, but during our stay in Ubatuba, a local resident found a snake and called us to pick it up. It was a Serra Snake (*Tropidodryas serra*), an elusive and hard-to-find Atlantic Forest snake.

Finding these animals in nature is always an unforgettable experience, full of adrenaline and happiness. Unfortunately, we still haven't found Sauvage Snail-eater that was the focus of my expeditions, but soon we will continue our journey in search of this snake in the immense forest of Serra do Mar.

<sup>1</sup>Field of biology that describes biodiversity and classifies it through comparative studies, to reconstruct living organisms' relationships according to their evolutionary history).

© Julia Mayumi



Split-backed Frog (*Fritziana cf. fissilis*)



Ocellated Treefrog (*Itapotihyla langsdorffii*)





CUB'S CORNER

NATURE  
THROUGH  
MY EYES

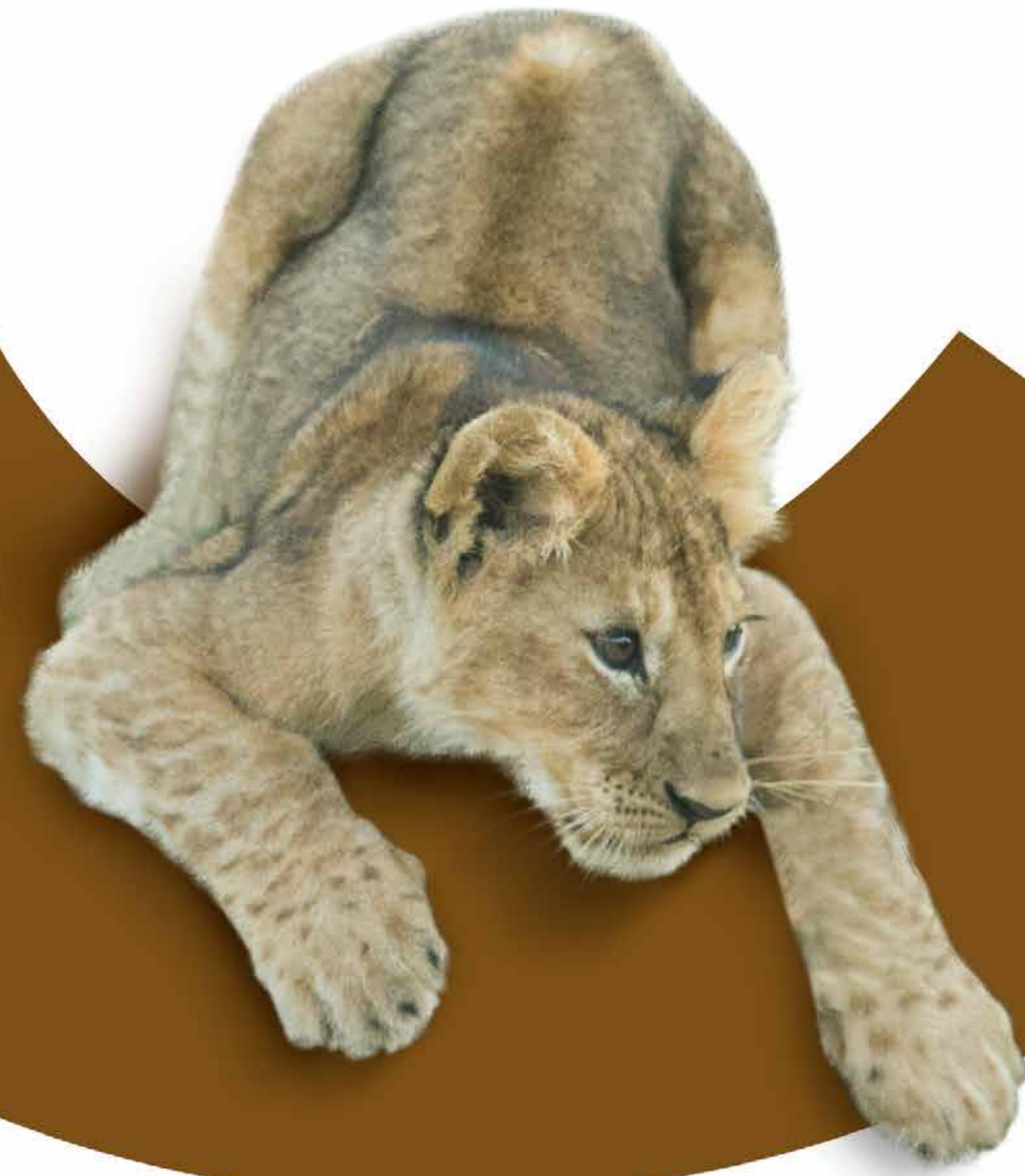
**Shannon Edward**

©Shannon Edward

CUB'S CORNER



## CUB'S CORNER

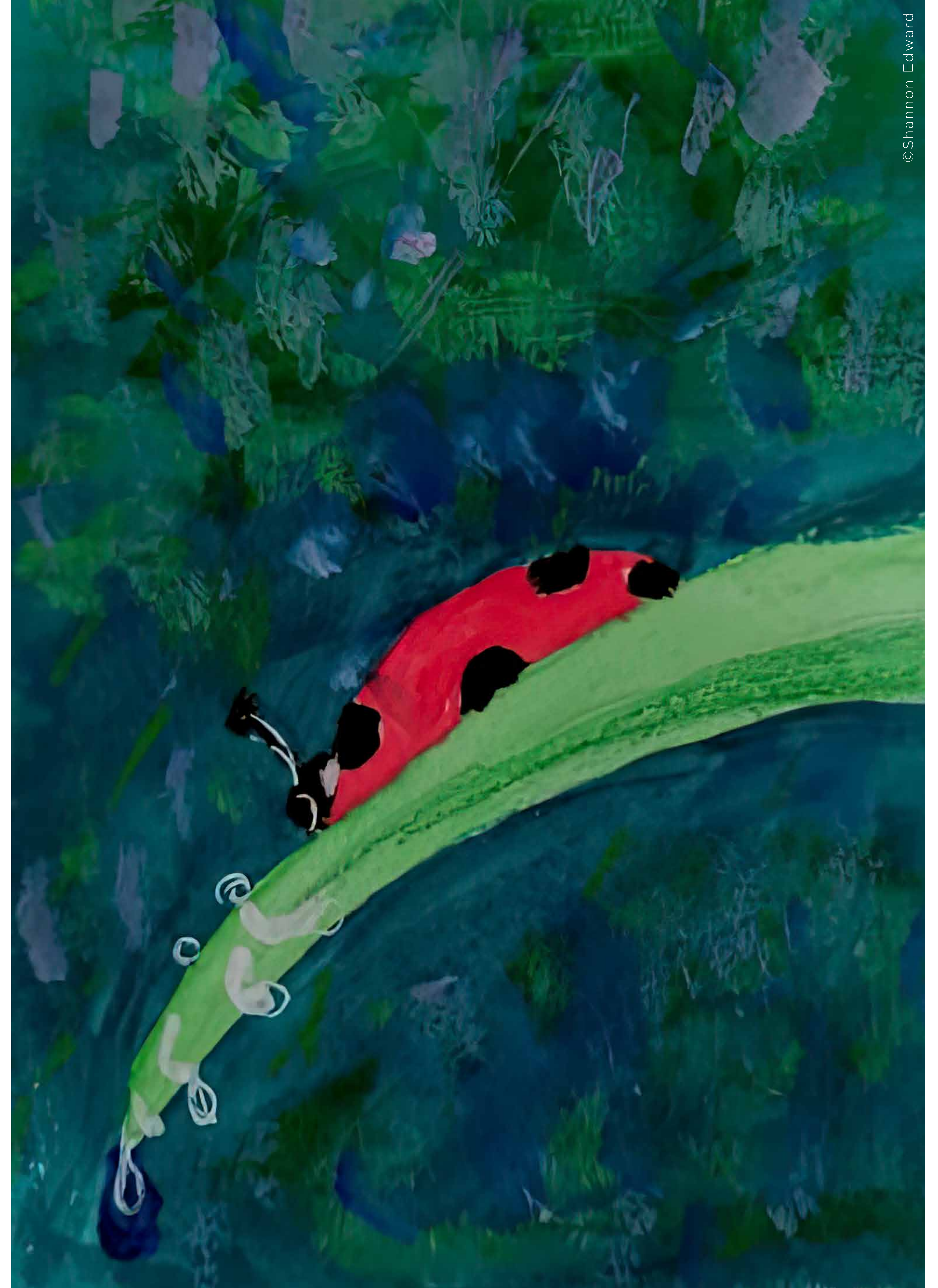


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Shannon Edward started painting at a very young age. Her parents Edward Jose and Mrinmay Sebastian are both creative people. Shannon is now eight years old and studying in the 3rd grade at Gems Legacy School. Art has always been her passion and she just follows her instincts. Her paintings are never a deliberate effort but very spontaneous.

Shannon started painting when she was just past one year, when she picked up her mom's water brush and started exploring watercolors. Watercolor is still her favorite medium, and she also enjoys other mediums like gouache, acrylics, pastels, and color pencil. She portrays her dreams and messages in the form of her painting. She also keeps a sketchbook which she always carries with her wherever she goes and creates her cute drawing when time permits. Though Shannon started off with coloring books, now she enjoys working on canvas. Shannon has participated in many art events and won many recognitions for her artwork.

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# Her Views & Visuals

By Dinorah Graue

Crowned Tree Frog (*Triprion spinosus*)

HER VIEWS & VISUALS





Mexican nature photographer, chemist by profession, Dinorah developed her artistic side as a photographer when she arrived in Costa Rica, falling in love with the enormous biodiversity of this country. She has a Degree in Photography and Digital Editing from the Universidad Latina de Costa Rica. Founder of Bukuë, a photographic project dedicated to translating nature's beauty and art through images. Owner of Kialä, a sustainable clothing and accessories brand, with designs inspired by her own photography. Her art has crossed borders and has been recognized worldwide, most recently by receiving the Alpha Female Award at the 2022 Sony World Photography Awards.

[instagram.com/bukuephotography](https://www.instagram.com/bukuephotography)  
[instagram.com/kiala.designs](https://www.instagram.com/kiala.designs)  
[dinorahgrau.com](https://www.dinorahgrau.com)

# Her Views and Visuals



Resplendent Quetzal (*Pharomachrus mocinno*)



@Dinorah Graue





Great Green Macaw (*Ara ambiguus*)



### How did your interest for wildlife arise?

As a person who grew up in Mexico City, fate played a very important role in me becoming a wildlife photographer. One of the fondest memories I have of my childhood is sitting down with my grandfather — who really liked black and white pictures — to read the National Geographic magazine, which we both enjoyed very much. I always liked capturing my trips and family events, and the taste for photography increased with the arrival of my two children. Ten years ago, my family and I moved to Costa Rica and our life took a 180 degree turn; this beautiful land welcomed us with open arms, and I suddenly found myself with a lot of free time, which allowed me to pursue my passion in photography and begin taking classes.

Costa Rica, which never ceases to marvel, offers incredible biodiversity; it is a place like no other, from its extraordinary cloud forests to its beautiful beaches, wherever you turn you will find something that makes you fall in love. This is how my interest for nature was gradually shaped, and it is the reason why I concentrate on wildlife.

### How do you describe your journey as a photographer and a person?

Photography is the art that gives me life, that feeds my soul. It is the magic that has allowed me to find that creativity and artistic sensibility, which take me to a private world of lights, shapes and colors. It is in this world where I have found my own way of looking, where I have shaped



Coppery-headed Emerald Hummingbird (*Elvira cupreiceps*)





Red-eyed Tree Frog (*Agalychnis callidryas*)



that illusion of reality and where I have created a special nostalgia to remember that moment that will never return.

I think that in the art of Photography we capture with our lens those brushstrokes of color that will later give life to an image. My photography is characterized by always looking for that perfect combination of colors that only nature can give us.

Living in Costa Rica has been an incredible 10-year journey that has provided me with the possibility of having incredible biodiversity within reach. I am thankful for being able to enjoy nature daily, and for having a camera that helps me capture beauties that can be later transmitted through my art. Photography has allowed me to give life to two projects: Bukuë and Kialä. The former meaning frog in Bribri language, and the latter meaning toucan in Ngabere language. Bukuë is my photographic project, and Kialä is a sustainable clothing and accessories brand that draws inspiration from my own pictures. These two projects have inserted me into environments where I never imagined myself in; from exhibitions in foreign countries, to fashion shows in Costa Rica. It has also allowed me to be part of conservation projects through NGOs.

**What is your view on Wildlife Conservation? How can we, as wildlife photographers, help to protect our Mother Nature?**

I like to think that through my photographs I have been able to transmit and show people the beauty in Mother

Nature, and as a result have encouraged them to learn more about her; it is only when you have truly learned about something that you have the ability to protect it. I believe that photography is a very powerful weapon that can be used to raise awareness about our natural world, and how to take care of it. Nature is too fragile, it can be ephemeral and only by taking care of it will we be able to preserve it for future generations.

**Can you give our readers the best wildlife photography tips? Do you have any recommendation on settings or gear for wildlife photography?**

Let nature surprise you. You can't control it - it will always be unpredictable. This is the amazing thing about being a wildlife photographer; you can visit one place several times, but you will always get different pictures. If you get too much into the idea of a photograph, it may be that you return without having obtained it.

Experiment. Spoil. Only by trial and error will you be able to perfect your technique. Make sure to step away from the camera to enjoy the moment every now and then, and make sure to use your own eyes to experience the things around you. Fill yourself with peace by being surrounded by nature, and if you get a good photo, well, it is the icing on the cake. I would like to share some tips: study at what time of the day you have the best light to photograph, evaluate which gear is the most suitable to take, the difficulty of the terrain in which you are going to enter to photograph the species in question, prepare your trip or



@Dimorah Graue





@Dinorah Graue

Keel-billed Toucan (*Ramphastos sulfuratus*)



Ghost Glass Frog (*Sachatamia ilex*)







In focus: Fiery-throated Hummingbird (*Panterpe insignis*)  
Unfocused: Magnificent Hummingbird (*Eugenes fulgens*)

photo session as an integral project, and above all, observe and study the behavior of the species you want to photograph.

On the topic of behavior and observation, I think it is important to join an experienced guide who is knowledgeable about the area. These professionals know the best places and they can be the difference between getting a good shot or not getting one. They know the right place and the right time to find whatever you are looking for.

I believe that a picture stands out when it conveys the emotion of the photographer, has a good technique and excellent composition; and finally when you have a good post-production. I believe that a good photo is achieved on site, but gets the final and personal seal of the photographer at the time of editing.

We must always keep in mind that being a photographer goes beyond clicking, being a photographer is to transmit, inspire and create.

**What plans do you have in the future related to wildlife Photography?**

I want to continue photographing the natural beauties of Costa Rica, Mexico and the world. As I told you before, just over a year ago I launched my own sustainable line of clothing and accessories called Kialä; one of the pillars of the brand is to support foundations that are dedicated to protecting the habitats of endangered species, something that I plan to keep doing in the near future.

Personally, I want to be able to travel





Magnificent Hummingbird (leucism) (*Eugenes fulgens*)





King Vulture (*Sarcoramphus papa*)



around the world and continue to marvel at the endemic beauty of each of the places I visit. And of course, I have the desire to write and speak about the love I have for Nature. More recently, I have been invited to give talks to photography students, allowing me to pass on my knowledge and experience as a wildlife photographer. I want to continue this work, because I believe that photography can be a powerful tool that can be used to teach future generations about our planet, and how to take care of it.

In the near future I will probably venture into landscape photography, a task that will take a lot of learning and studying to accomplish. All of this to be able to show the beauty of our world, and therefore, to preserve and protect the species that inhabit it.

**Tell us something about the gears you use?**

I use a Sony Alpha A7 RIV Camera. When it comes to lenses, I use the Sony 200-600mm f/5.6-6.3 telephoto lens for bird photography, and the Sony 90mm f/2.8 macro lens for macro photography. I also use the Sony 24-70 mm lens from Sony.

I have always considered the camera to be an extension of myself, however it is still a tool. The camera is not the one that does the magic, the magic is performed by whoever is behind the viewer. You have to know how to see with your heart and understand that what is essential is invisible to the eyes. The important thing is to take the tools you have at your disposal and to get the most out of them to take pictures that no one else will. You have to go further.



Ring-billed Gull (*Larus delawarensis*)

@Dinorah Graue



Hecale Longwing Butterfly (*Heliconius hecale*)



Saffron Toucanet (*Pteroglossus bailloni*)







Roseate Spoonbill (*Platalea ajaja*)





TRAVELOGUE

# Birdwatching in Rio de Janeiro, Brazil

By Débora Lacerda

Edited By Bruno Ferreto Fiorillo

Fig 1 - Cristo Redentor

TRAVELOGUE





Débora Azevedo Lacerda has a degree in Environmental Management and Landscape Design. From birdwatching, she discovered nature photography in the state of Rio de Janeiro, Brazil.

[instagram.com/debora.al](https://www.instagram.com/debora.al)  
[facebook.com/debora.lacerda](https://www.facebook.com/debora.lacerda)

I have always enjoyed being in contact with nature, enjoying its beauty, and contemplating the richness of fauna and flora, particularly the birds. The camera lenses gave me the pleasure of being able to see all of this up close, which fascinated me. That's how photography came into my life, about seven years ago.

Photographing nature brings me a sense of peace. It is like a meditation, where no other thought fits, only the contemplation of the present moment!

In Rio de Janeiro, the carnival song that says: "Marvelous City, full of a thousand charms...", exactly describes the city from the eyes of the world. Surrounded by sea and mountains and with so many natural beauties, it is considered the capital of Brazilian tourism.

The metropolis has famous touristic attractions all over the world, such as the *Pão de açúcar*, the Maracanã Stadium, the stage for some of the biggest soccer matches in the world; the *Corcovado*, with the *Cristo Redentor* statue (Fig. 1),



Fig 2 - Golden-capped Parakeet (*Aratinga auricapillus*)



Fig 3 - Saffron Finch (*Sicalis flaveola*)







Fig 4 - Great Kiskadee (*Pitangus sulphuratus*)

which is considered one of the seven wonders of the modern world; the *Sambódromo*, where the Carnival, the biggest event of the city, takes place; and not less important, the coastal region with beaches of Ipanema, Leblon, and the famous Copacabana are landmarks of Rio.

For birdwatching, the city provides many options and charming sites. The Tijuca National Park, which is the largest human-replanted forest in the world, is located in the heart of Rio and has a great diversity of birds that can be easily seen at any time of the year. I will list here some other interesting and easily accessible places: *Parque da Lage, Lagoa Rodrigues de Freitas, Parque da Cidade, Bosque da Barra, Pista Claudio Coutinho, Parque da Catacumba, Quinta da Boa Vista* and others.

The Atlantic Forest and the coastal region provide so many options for wildlife observation, that it is difficult to choose. However, despite so many wonders, I believe that birdwatching in Rio de Janeiro still needs to be more publicized and encouraged.

#### **Aterro do Flamengo**

The Flamengo Park, also known as “*Aterro do Flamengo*” is a leisure complex built on successive landfills in Guanabara Bay. It is located on the seafont, between Santos Dumont Airport, in downtown Rio and the beginning of Botafogo Beach (in the southern zone). This is the largest urban park in the world. Founded in 1965, it has 1.3 million m<sup>2</sup>, and it is composed of two distinct areas: the first in the Glória neighborhood, where the Museum of







Modern Art (*Museu de Arte Moderna* - MAM), the Monument to the dead of World War II, the harbor Marina da Glória, the Getúlio Vargas Memorial, the concert hall Vivo Rio, the Glória Beach, and other attractions.

The second area, separated from the first by a breakwater, is in the Flamengo district and has multi-sport courts for playing soccer, volleyball, basketball, tennis, and model airplane tracks and bike paths. It also has a puppet theater, an amphitheater, and a bandstand.

The landscape design was projected by Roberto Burle Marx and comprehends more than 11,000 trees among native and exotic species. There are more than four thousand plants of 50 different species among the palm trees alone. The landscaper chose species that bloom in different seasons, ensuring flowers can be seen throughout the year. The vegetation was arranged in large clusters of the same species to further highlight their bloom.

As I live very close to the park, I usually wade there on Sundays. I take the opportunity to photograph the birds, the flora, and whichever component of that beautiful landscape. There are known 118 bird species, and this number is growing.

Birds benefit from the park, as there is a great abundance of flowers and fruits. Big flocks of parrots, such as parakeets and parrots, pass by, making a lot of noise, and many of them make their nests in trees and even on lamp posts.

In the beautiful garden of MAM, I have had the pleasure of photographing a

couple of Golden-capped Parakeets (*Aratinga auricapillus*; Fig. 2) “dating” high in a tree. Many Saffron Finches (*Sicalis flaveola*; Fig. 3), Great Kiskadees (*Pitangus sulphuratus*; Fig. 4), among other species, can be seen on the lawns and in the surroundings.

Closer to the sea, several species of herons (Fig. 5) and seabirds are noticeable. It is a privilege to have such a beautiful and lively place in the city of Rio de Janeiro, although we know that safety at certain locations is flawed.

### **Guinle Park**

The Guinle Park is placed in the *Laranjeiras neighborhood*, in the Southern Zone of the city. Formerly a farm, it was acquired by a wealthy businessman called Dr. Eduardo Guinle. The reason for the acquirement was the construction of his residence. Today this mansion is known as *Palácio das Laranjeiras*, currently the official residence of the Governor of Rio de Janeiro state. It has an area of approximately 25,000 m<sup>2</sup> that includes projects by landscape architect Roberto Burle Marx. The beautiful lake, many grassy areas, pleasant avenues, and several tropical trees and plants, in addition to the architecture provided by Lúcio Costa, makes the park a true sanctuary of human-nature coexistence

I often visited the *Guinle* during my childhood, as I have always lived nearby. With the arrival of the pandemic, I went back to it to exercise after a long time away, and only then did I rediscover the wonders of the place. From there, I decided to take my camera on these morning walks and, what was my surprise:





Fig 6 - Channel-billed toucan (*Ramphastos vitellinus*)



Fig 7 - Harris's Hawk (*Parabuteo unicinctus*)







Fig 8 - Neotropic cormorant (*Phalacrocorax brasilianus*)



I was delighted to find a nest of Channel-billed Toucan (*Ramphastos vitellinus*; Fig. 6) in a tree. I watched and recorded the care of those parents until their nestling's first flight. From what I could observe over the months, this same tree served as a nest and dormitory for other couples of toucans. This bird is considered vulnerable (VU), according to the International Union for Conservation of Nature (IUCN). Despite this, it can be easily seen in the gardens of the place.

The Harris Hawk (*Parabuteo unicinctus*; Fig. 7) usually makes its nest in the park's palm trees (I also have many records of these species hunting, feeding their nestlings, or just flying freely), and the Neotropic Cormorant (*Nannopterum brasilianum*; Fig. 8) can be seen enjoying the water and waiting for its feathers get dry. On these wanderings, I made many friends who contemplate nature as much as I do. It is a beautiful and peaceful place that allows being in contact with nature and taking beautiful pictures of the local fauna.

### **Botanical Garden**

The Botanical Garden (Fig. 10) was created in 1808 by Prince Regent D. Joao VI. Its initial objective was to acclimate plants from the East Indies, such as black pepper, cinnamon, nutmeg, vanilla, and others. Simultaneously with this investment, the arboretum area was expanded to serve as a leisure space for the local population. In this way, lakes, waterfalls, and fountains were included.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defined the Botanical Garden



Fig 10 - Botanical Garden



Fig 12- Swallow Tanager (*Tersina viridis*)







Fig 13 - Burnished-buff Tanager (*Stilpnia cayana*)



as a Biosphere Reserve with enormous scientific, historical, cultural, and scenic importance. In fact, this park differs from the others, as its gist is to combine leisure and science in the same place.

The park's flora forms an ecological corridor that connects the Botanical Garden to the Tijuca National Park, allowing wild animals to disperse. For bird watching (Figs. 12-13;18), the Botanical Garden is a true paradise. With almost 200 species identified and cataloged, it is not difficult to observe several of them. It is a safe space that allows observers to enjoy nature and photograph.

I have great affection for this place. Whenever I can, I go there and return home pleased. Nature is exuberant and speaks for itself. Plants of all kinds and shapes, many flowers, and fruits are a real feast for the eyes. Lakes are full of water lilies (Fig. 11), fish, and aquatic birds that look like paintings.

#### **Photographing urban birds**

Apart from their contemplative value, birds have enormous importance for the environmental balance. In the Atlantic Forest, toucans, parakeets, and songbirds are seed dispersers that largely contribute to plant reproduction and survival in urban areas.

I enjoy recording the birds interacting and feeding up close. For this reason, I placed several attractors on the balcony of my apartment. Among them: are potted plants and attractive flowers, a feeder (usually filled with bananas and papayas), a large container with water for bathing,



Fig 15 - Blue Dacnis (*Dacnis cayana*)





Fig 16 - Blue Dacnis (*Dacnis cayana*)





Fig 17 - Bananaquit (*Coereba flaveola*)



and a drinking fountain for the hummingbirds.

A considerable number of species are constantly visiting my balcony, such as the Pale-breasted Thrush (*Turdus leocomelas*; Fig. 14), Blue Dacnis (*Dacnis cayana*; Figs. 15-16), Bananaquit (*Coereba flaveola*; Fig. 17), Great Kiskadee (*Pitangus sulphuratus*; Fig. 4), Plain Parakeet (*Brotogeris tirica*; Fig. 19), Swallow-tailed Hummingbird (*Eupetomena macroura*; Fig. 20), and the Glittering-bellied Emerald (*Chlorostilbon lucidus*; Fig. 21). Many of these birds leave carrying the fruits to their nests, and a few days later, they return bringing upon their young.

Living in a big city like Rio de Janeiro and being in contact with so many species of birds is a great privilege. I feel accomplished when the photos I take catch people's attention. Some thank me and comment that they had never noticed that nature was so "close". I'm glad to be able to share my emotions through photography.

We photographers and bird/nature observers proudly contribute a lot to awareness on biodiversity. We are great allies of researchers and biologists, surveying, and monitoring birds through citizen science. The records posted on databases such as *wikiaves*, *ebird*, allow real-time documentation and provide valuable information for ornithologists around the world.

Birdwatching has been recruiting many followers and stimulating tourism throughout Brazil. In addition to the awareness of nature's conservation, it encourages the proximity between human beings, flora, and fauna. The city of Rio de Janeiro is privileged since it embraces species from different biomes and regions of the country.

I invite everyone to birdwatch in Rio de Janeiro



©Débora Azevedo Lacerda

Fig 18 - Toco Toucan (*Ramphastos toco*)





Fig 19 - Plain Parakeet (*Brotogeris tirica*)





Fig 20 - Swallow-tailed Hummingbird (*Eupetomena macroura*)





Fig 21 - Glittering-bellied Emerald (*Chlorostilbon lucidus*)



THROUGH THE LENS

# The Mexican Sardine Run

By Gustavo Costa



Striped Marlin (*Kajikia audax*)

THROUGH THE LENS

© Gustavo Costa





Gustavo is a professional photographer and scuba diving instructor. Born in Argentina, he moved to the Yucatan Peninsula, Mexico, 15 years ago. His objective is to create evocative images that capture the public's interest in the natural aspects of the planet and thus raise awareness of the importance of its conservation.

[gustavocostaphotography.com](http://gustavocostaphotography.com)  
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In the distance we can clearly see how a group of sea birds flies over an area and several of them diving into the sea. There it is! The captain warns us as he heads the boat in that direction and accelerates to full speed to get there as fast as possible. When we arrive, the scene is boiling over. Small silver fish leap out of the water in a desperate attempt to survive as dark triangular-shaped dorsal fins cut the

surface of the water. To the voice of Go! I jump out of the boat and find myself engulfed by endless bubbles. In a few seconds the bubbles disappear, and I have before me a natural spectacle that leaves me speechless ...

Animal migrations are events that contain nuances of majesty and drama in equal doses. From the fragile



Striped Marlin (*Kajikia audax*)





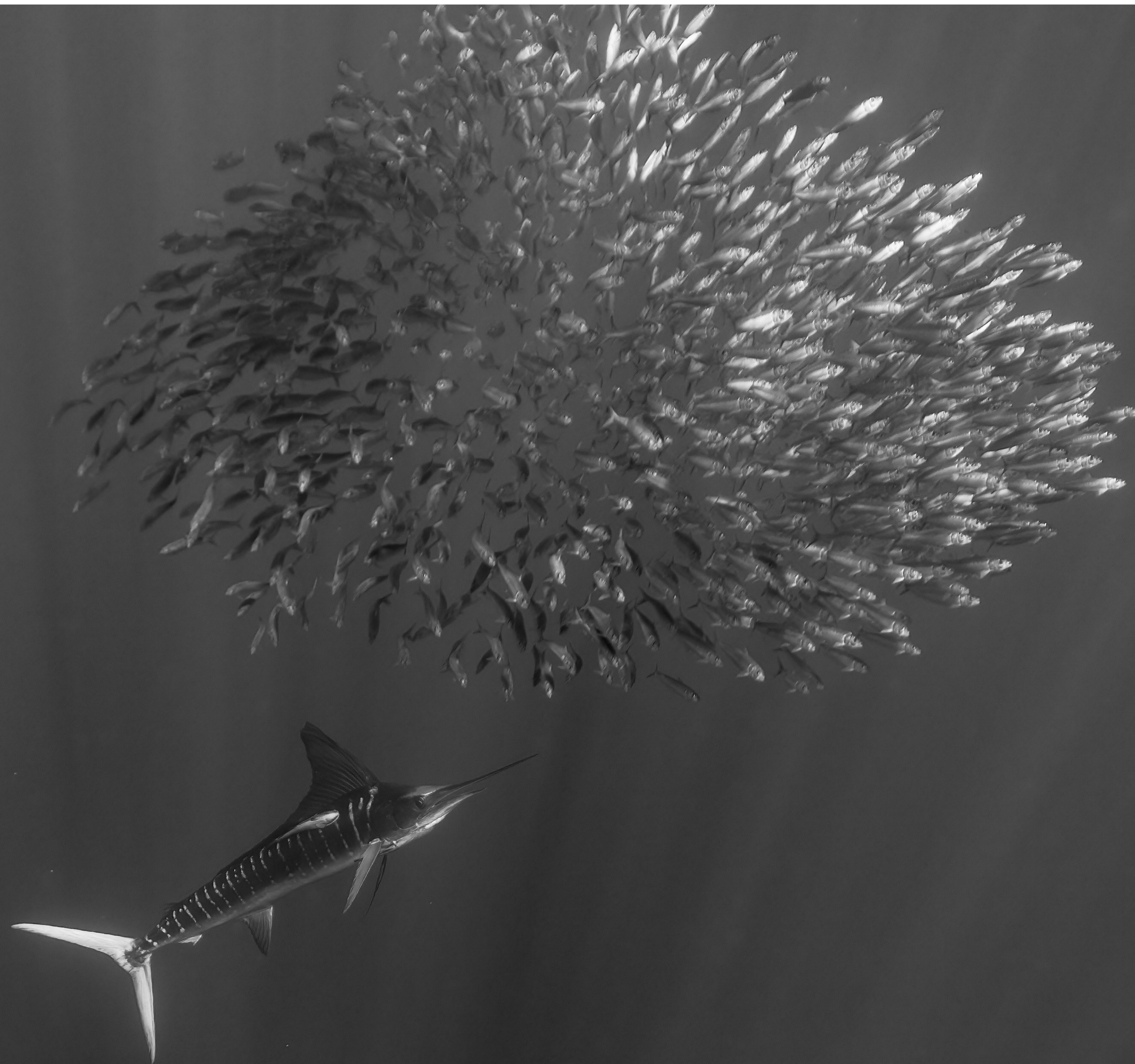
Striped Marlin (*Kajikia audax*)





Striped Marlin (*Kajikia audax*)





Striped Marlin (*Kajikia audax*)

monarch butterflies that fly thousands of kilometers in North America to the immense herds of wildebeest that roam the African savannah, we have plenty of examples on the planet of diverse species that undertake long, and dangerous days of march driven by an ineffable impulse that forces them to obey the mandates of the life cycle. In the ocean there are also these impressive manifestations of the natural world and one of them is the one that we can witness from October to December every year in Magdalena Bay, Mexico.

Our tour begins in the city of La Paz, capital of the state of Baja California Sur. From there we cross the peninsula from east to west to arrive at Puerto San Carlos, a small town located on the coast of Magdalena Bay, the gateway to the immense Pacific Ocean. Since its origins its inhabitants have been dedicated to fishing, but relatively recently they have begun to understand the value of nature observation tourism. This is because from August to January in this sector of the Pacific the sardines approach the bay forming huge balls, which in turn attracts their main predators, including sea lions, whales, dolphins and the species that we came to document, the striped marlins.

We left the port very early, with the first rays of the sun. Approximately 60 nautical miles await us to reach the area where these formidable fish gather to hunt.

Striped marlin (*Kajikia audax*) is a species of marlin found in the tropical and temperate zone of the Indo-Pacific oceans. It is a fish that can weigh more than 200 kg and reach a maximum length









© Gustavo Costa

Striped Marlin (*Kajikia audax*)



© Gustavo Costa

Striped Marlin (*Kajikia audax*)





Striped Marlin (*Kajikia audax*)



of 4.2 meters. The striped marlin is a predator that hunts during the day in the first 100 meters from the surface, and it is exactly what they are doing when I fall into the water.

The underwater scene is presented before my eyes in a frantic and dramatic way. A few meters away, I am able to count more than thirty marlins that chase and corner the sardines and in successive and fast attacks they launch themselves over the ball trying to catch their victims, who are forced to get closer and closer to the surface. This, in turn, puts them at the mercy of seabirds that fly over the action attacking them from above.

The strength of sardines lies in their large number and in staying together, the ball of fishes moves as if it were a single individual. If a sardine is separated by just a short distance from the rest, it means the end. The strength of marlins is their extraordinary speed. They are one of the fastest fish on the planet, reaching speeds of up to 70 kilometers per hour. This characteristic becomes noticeable when they are thrown in furious accelerations on the ball of fishes. These frenzied casts start and end in seconds, and they're so fast it's nearly impossible to catch them with the naked eye. Not all attempts are successful, but the vast majority end with a member of the ball and countless scales floating in the water. While the marlins are the stars of the action, they are not the only ones interested in feeding on the defenseless sardines. On several occasions the sea lions join the feast, first chasing the marlins away and then hunting comfortably, although the two species are often seen attacking the balls simultaneously. Slowly the ball of sardines gets smaller and smaller, and the surviving fish sometimes seek refuge under the divers who are observing the scene floating on the surface, allowing these impressive predators to be admired or



© Gustavo Costa

Common Bottlenose Dolphin (*Tursiops truncatus*)





Striped Marlin (*Kajikia audax*)





Humpback Whale (*Megaptera novaeangliae*)





© Gustavo Costa

California Sea Lion (*Zalophus californianus*)

photographed sometimes from inches away.

At first glance it seems that the action develops randomly, and I could even say chaotically, but when I stop to observe in more detail, I can realize that there is a kind of choreography or turns procedure among the marlins, by which the vast majority of individuals stay below and around the ball, while two or three individuals attack it. Once these individuals achieve their objective, they take the place of raiders and others take the place of attackers. It is a wonderful mechanism of cooperation between the marlins that leaves me completely amazed.

The action is extremely dynamic, the marlins and sea lions run after the sardine ball, which rarely remains static enduring the siege. So, the game consists of jumping into the water, swimming next to the fishes for a few minutes and, when they move away or the forces leave us, get back into the boat. The captain in turn moves the boat closer to the action to re-enter the water and so on. It is a physically demanding activity, which requires considerable physical condition to keep up with the action.

Eventually the action ceases. The marlins disappear and the sea lions scatter, probably in search of larger balls, leaving only a blue calm dotted with millions of scales from the devoured fish at the site of the battle.

There are days when several of these events can be observed, while on others the marlins remain on the bottom of the ocean without being seen. However, this

sector of the Pacific Ocean offers the possibility of observing other fascinating marine species, such as dolphins, sea turtles, mobules or the great inhabitants of the ocean, whales. Several species cross these waters, including Blue, Bryde, and Gray, but Humpback Whales are the most commonly observed. Humpback whales (*Megaptera novaeangliae*) arrive ashore in Baja Sur California in mid-October. They come here after a long migration from the northern Pacific Ocean, to find mates, give birth and raise their young. It is not uncommon to see females traveling south in the company of their calves born the previous year, or groups of males fighting and slapping their massive bodies against each other to attract the attention of a lone female.

Entering the water to swim with the whales is prohibited in Mexico, but on several occasions the situation occurs that the diver is in the water observing other species and the whales appear, which generally swim by. For those of us who have had this fortune, these few seconds are wonderful, unforgettable and extremely emotional. It is in these rare circumstances that one can correctly size its enormous size. Watching them pass and swim away with their graceful movements is a spectacular experience - one is left floating in the middle of the blue moved to tears and with a feeling of infinite gratitude towards Mother Nature.

At the end of a good day of exploration, you arrive at port exhausted, but with a soul brimming with energy and happiness for having swam in one of the richest and most diverse marine environments that Mexico has to offer.





Humpback Whale (*Megaptera novaeangliae*)





Pacific White-sided Dolphin (*Lagenorhynchus obliquidens*)





Striped Marlin (*Kajikia audax*)



TIPS AND TRICKS

# Photographing Wildlife at Night

By Emmanuel Commiso

Achala Toad (*Rhinella achalensis*)

TIPS AND TRICKS

© Emmanuel Commiso





Argentine and park ranger by profession. He is lucky enough to visit different protected areas and live in them thanks to his work. About ten years ago he used photography as a way of connecting with nature. Night fauna photography was a rediscovery of his passion for animals. Since then, he works with artificial light in search of new visions.

[instagram.com/emmanuelcomisso](https://www.instagram.com/emmanuelcomisso)  
[facebook.com/emmanuel.comisso](https://www.facebook.com/emmanuel.comisso)

When I prepare my photos, more than half of the work is in the before. Hard work is already starting from concepción. First of all, I try to seek inspiration, usually in the most prestigious contests. From there, I look for photographers that their work attracts me, and I start to get ideas of what they do. Perhaps the technique used, the animal they work with, the compositional ideas, in short, it may be

several things that lead me to see their profiles. But they are always the point of inspiration. Then I begin to study the species which I will portray and which I will try to apply the techniques that inspire me.

Generally, I photograph species close to my environment since it will take time for me to learn their movements and if I

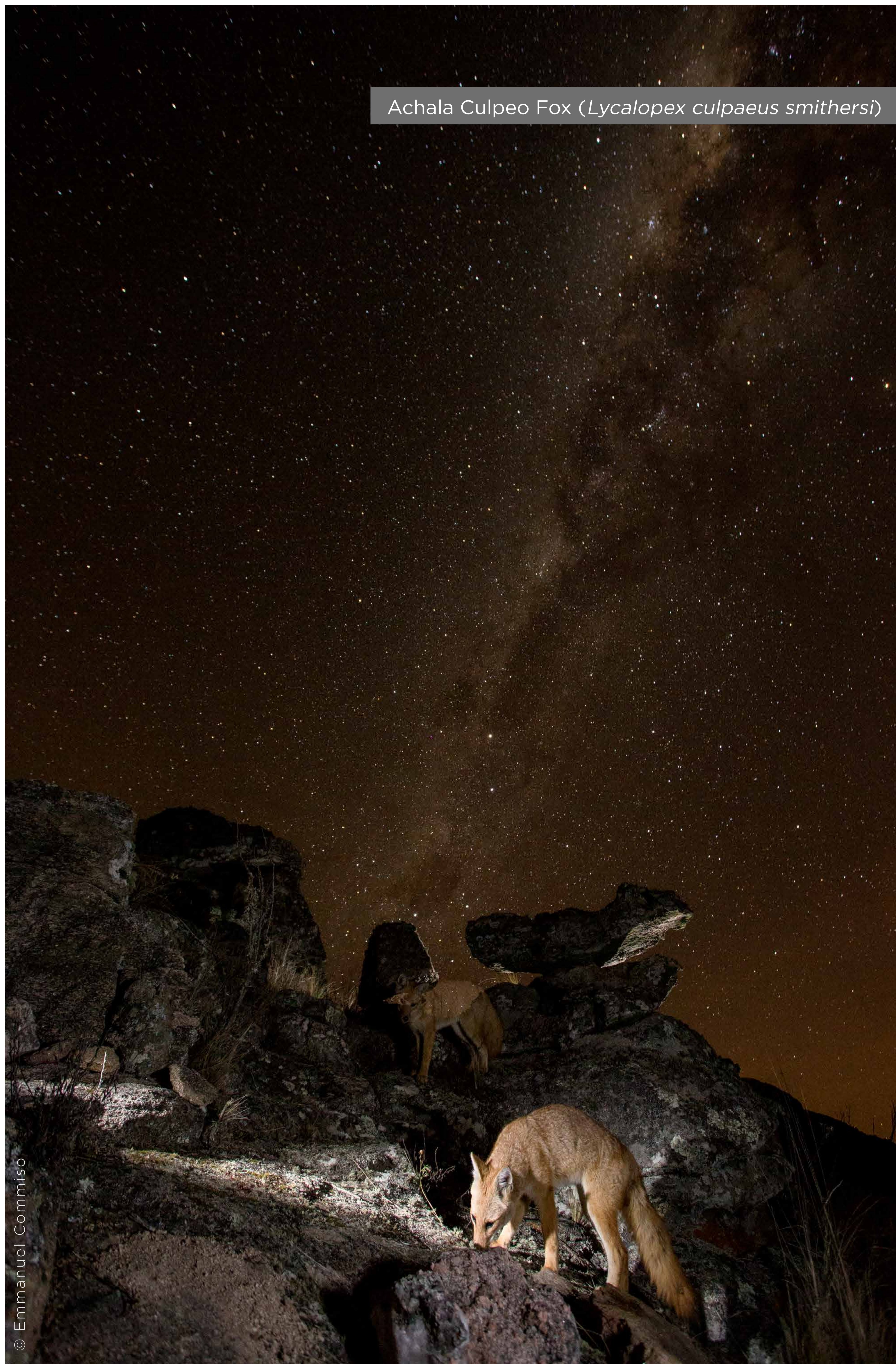
Achala Culpeo Fox (*Lycalopex culpaeus smithersi*)











© Emmanuel Comiso

were in another place, I would not be able to carry out all the work, especially the observation time.

While I am getting to know the species, and particularly the individual, I am leaving photographic elements, bait cameras and “human” things in the place where the scene will be, so that the animal can get used to the smells and shapes. If the animal eats a lot of some species of plant, I try to include this one in the scene (they usually end up being the innkeeper).

I also try to be careful if the animal has to be fattened, since I do not want it to stop fulfilling its ecological role.

Little by little the animal gets used to moving between the photographic equipment, making my final work easier.

All movements I follow with a camera trap, which gives me all the information on where it moves, what scares it the most and what are its preferences.

Once the animal becomes familiar with the camera site, it moves confidently and is followed to the place I begin to design the lighting.

If I use continuous light, I must wait several days for the animal to trust it. On occasions it has happened to me that they do not come any closer to the place, leaving the photo without effect; This happened to me with mice, who seem that if they appear in a place with light, they lose visibility in the dark areas and are exposed to predators, so they decide not to approach any more.

An important point in this type of photography is the first encounter with the flash. Here too some animals are scared and decide not to return. Others are scared, but when they perceive that nothing dangerous is happening, they return and end up getting used to it. And finally, there are those who do not have problems with flashes, I have even seen some that smell them while they are firing.

I do this process of adapting to flashes very gradually, the animal may not return, and my project will be ruined by rushing. As an example, if I use a perch on birds, I first let the bird perch, without shooting anything. This way he trusts the innkeeper first. Once he uses the innkeeper assiduously, I shoot a flash while he is perched and wait for his reaction, and so I gradually include flashing shots until it is not afraid of them at all. When the animal trusts the perch totally and the flashes does not scare it, it is when you can flash several at the same time and do it while the bird is arriving in flight.

If the animal trusts a lot, this is where I like to work the most. First, I take the photo I had in mind; I look for the light I wanted. The one scene I had in mind is not always simple, things happen that I did not expect, but I am polishing the details day by day to arrive at the final image. I remember taking photos of a fox in winter and that they did not come out because the camera lens froze (this happened in the Pampas of Achala where the temperature usually drops to 20 below zero C.) So, I had to manage to protect the teams from the cold and rely a little on luck so that the animal arrived







early at night before everything froze.

For flash lighting, I usually have some light schemes that I like the best and I repeat them often. If the photo seeks to simply portray the species, I use two flashes at 45 degrees and one against. Thus, the result highlights the animal without looking for other points of illumination.

I also usually do against lights, for which I place two flashes with snoots behind, one illuminates the front of the animal (generally highlights whiskers if the animal has them) and the other points to the rear, seeking to “cut” the profile of the tail.

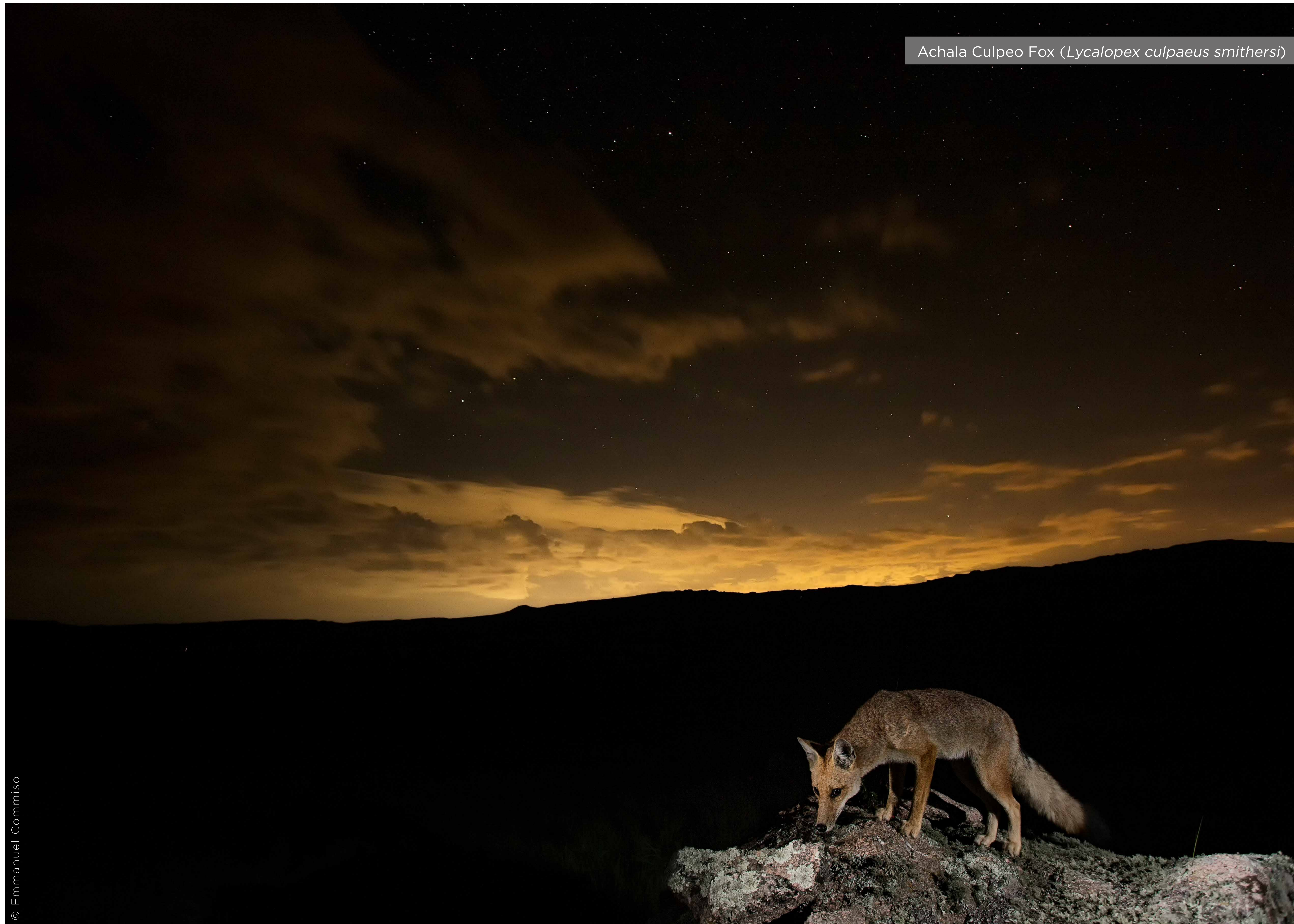
Generally, these photos that only aim to show the animal as fully as possible, I do them first, in that search for confidence with the photographic team.

Then the stage of searching for the desired photo begins. I like to think that this moment is where I start to put part of myself. I consider this stage more personal, since now I will leave what any photographer can do (technically speaking), to try to do something that comes out of me (creatively speaking). Depending on the photo I want, it will be the path to take.

I really enjoy taking wide-angle photography of animals, taking advantage of this degree of confidence that they have gained in the photographic equipment.

In addition, it is usually common to see animals photographed with long

Achala Culpeo Fox (*Lycalopex culpaeus smithersi*)



© Emmanuel Cormiso







White-eared Opossum (*Didelphis albiventris*)



© Emmanuel Comiso

telephoto lenses that cause those incredible blurs and the subjects gain a lot of prominence. But it is very rare to see them within their environments, perhaps because it is difficult for animals to gain prominence in these scenes. So, it's a very interesting challenge for me. If I want to include very large stages, I will need to illuminate a lot as well, for which I resort to taking long exposures and making everything light up naturally. This is nice since if there is a portion of the sky, stars can also be included. If the environment is a closed forest I illuminate it with flashes, but it requires very fine work to achieve a light that is coherent, given its direction and hardness.

The problem with long exposures is that the subject normally moves, so when I do this, I make sure that the place where the animal will be is in a space that does not receive natural light (I call this space, "negative"), then, I expose for the environment and in this exhibition, I must have a black space, where no light enters. In that space, is where the animal should be.

Now yes, I place the flashes to "fill in" that negative space with their light. Here, as I said, you have to be cautious, since the flashlight must simulate natural light, having coherence in its temperature and direction (something not easy to do).

I try several times until I achieve what I want and once I have achieved it, it only remains to wait for the animal.

Regarding the way the camera shoots, I always prefer to take photos with barriers. I have a homemade barrier that has given



me great results. Of course, it is not a big deal, and it is not good for making quick movements, but it is enough for the photos that I like.

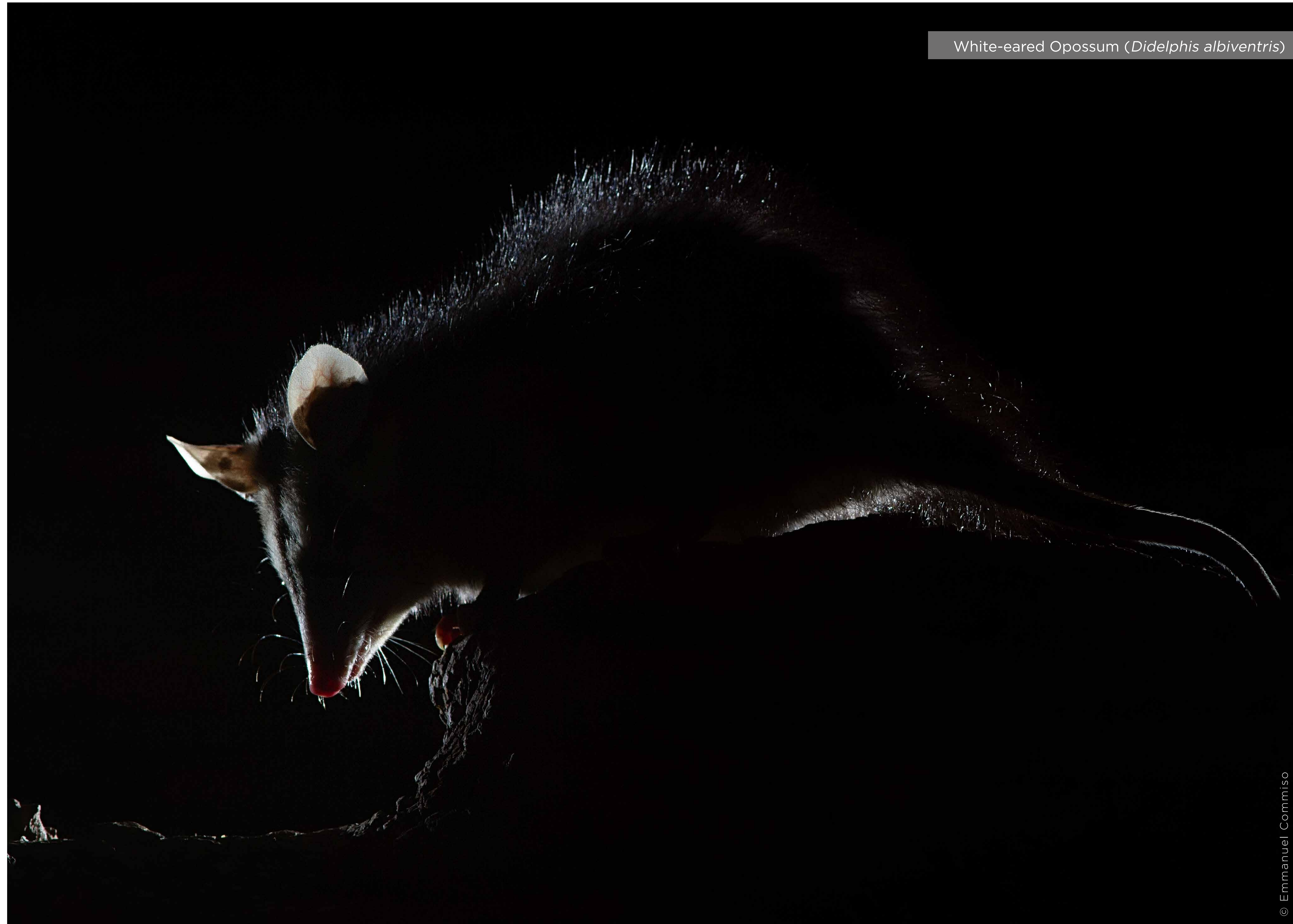
The difference between being present or not in the photo is abysmal. Animals move much calmer in my opinion, and that tranquility results in more photos per session. Yes, it is necessary to be very precise in the construction of the scene. By not being there if something fails, that failure will appear in all the photos, and no one wants to lose photos, the animal may perform an action or something unpublished and losing that moment would be unfortunate.

So, I put everything together very carefully. I check and analyze that the long exposure is not going to affect the “negative” part since if this happens the animal will end up being transparent. The flashes must also be very carefully made, if they introduce light into the naturally illuminated areas, they will lead to burning those areas.

Finally, before I leave the place and leave everything on, I take a photo of myself as an animal and inspect it. It is like a closure that everything is correct.

I have taken photos from hides and it also has great advantages, the good thing is that if something is going wrong, I can repair it right there. But clearly the animal becomes more reluctant to approach. On the other hand, it requires more patience, which is not enough for me, and even worse, it requires more time (the time you are going to be in the hide) and I don't have it.

White-eared Opossum (*Didelphis albiventris*)











Scissor-tailed Nightjar (*Hydropsalis torquata*)

Finally, there is an option that I use often which is to shoot the camera remotely. This would be through a remote control. They have a long range, and the results are very good, as you can capture action. Sometimes I capture photos from a feeder in my house while I do my chores, I have the remote control in my pocket. When I see that the animal begins to appear I prepare for the capture. If the animal does not come close, I continue with my other works. Once you have taken that photo you wanted (assuming you have achieved it), the job doesn't end there. It is that having the animal already confident and having worked so much, I like to get the most out of it.

Then the search begins for different, weird things, the ones that would technically be wrong.

I often find very interesting results that boost new ideas.

And so now, I am putting together a series photographs of the species that I am working on - showing the animals in different ways and little by little they make me grow in my way of seeing photography and its different creative aspects.









Mrinmay Sebastian  
Nature and Colors





Anthurium - Watercolor



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**Mrinmay Sebastian is a self-taught Indian artist who hails from Cochin, Kerala. She is currently residing in Dubai, UAE.**

**She is both a poet and artist who have always had a passion for capturing moments on her canvas.**

**[instagram.com/mrinmaysebastian/](https://www.instagram.com/mrinmaysebastian/)  
[mrinscreation.com](http://mrinscreation.com)**

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Since school and college days, she had won many awards for her paintings. It is with passion and practice over the years that she is able to offer her expression in the form of her creative works. Colours excite Mrinmay and through her work, she wishes to share excitement, energy,

warmth and happiness around her.

Mrinmay is also a great admirer of nature. From small she grew up seeing her parents nurturing plants even though they lived in a rented house in Chennai. Later when her parents built

© Mrinmay Sebastian

*Mrinmay C Sebastian*







an own house they had their own small farm where they grew vegetables and flowering plants. Mrinmay adored flowers. She expressed her love through her paintings. She really missed the beauty of nature of her native place, God's own land, Kerala. And each time she visited Kerala she relished and treasured the natural beauty . She expressed her admiration through her paintings and poems.

After 12th grade,,to encourage her artistic skills her cousin in collaboration with the Director of ITI, Madhavarm , Bro. Tomy awarded her 1st project to make 500 hand-painted greeting cards for Christmas .That vacation she visited Kerala and due to bandh, on reaching Aluva, Mrinmay,her Mom and brother visited her Aunt at St. Xavier's College. Seeing the college on a riverbank, excited Mrinmay and she along with family's approval decided to continue her graduation there. Those three years gave Mrinmay an opportunity to discover various skills. She was a very active leader, artist, supporter for sports and cultural groups. Thus St .Xavier's college was a fabulous platform where Mrinmay's talents blossomed.

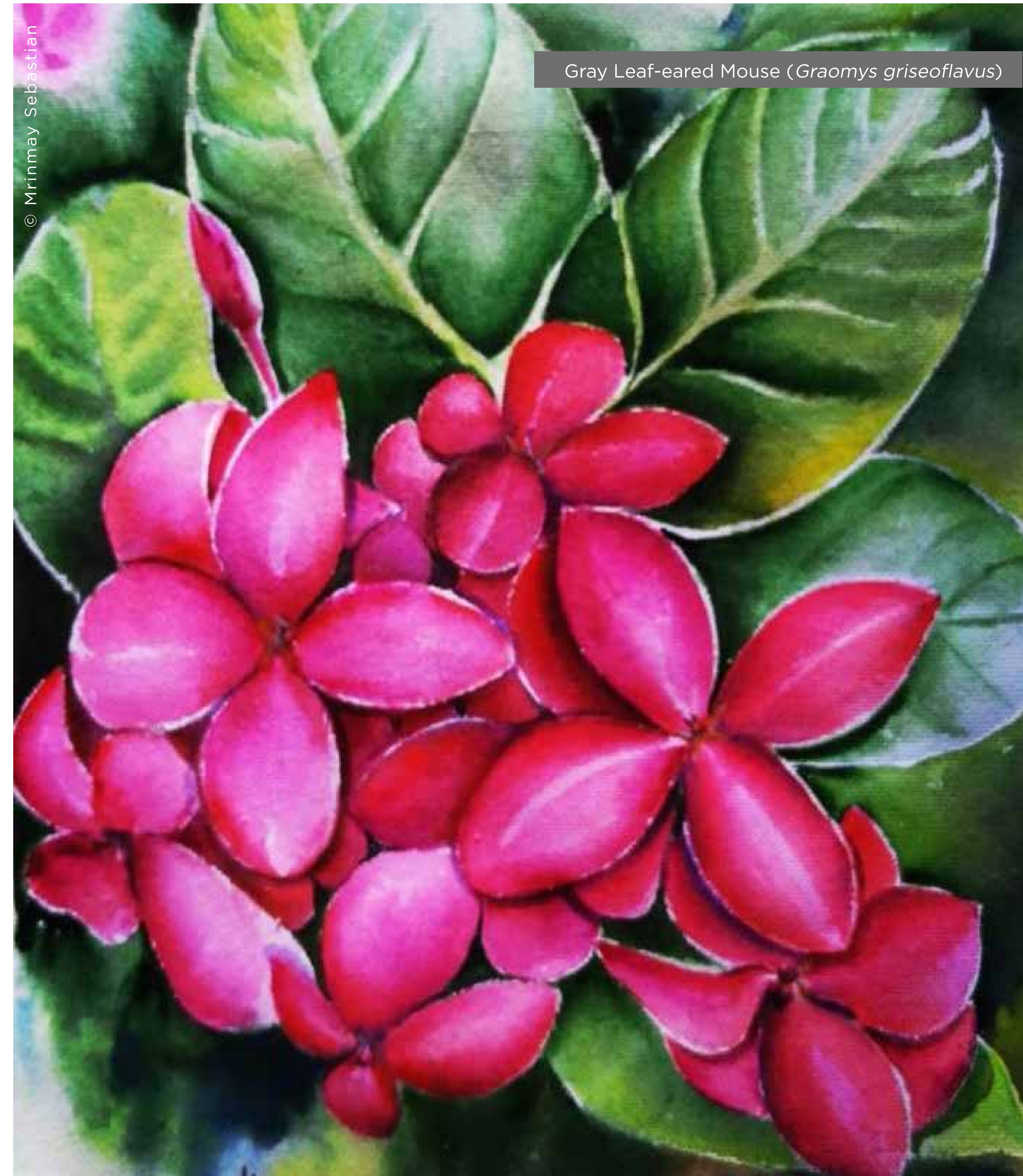
Mrinmay began her career as a marketing personal while doing her last year of graduation. She passed her graduation with 1st class in 1997 and also managed to secure a job with Kuwait Airways. She worked 10 years with Kuwait Airways and moved on in career with many prestigious establishments like Blubook, Frankfinn Air hostess training institution, Joyalukkas and DLF. It was in 2012 that Mrinmay came to Dubai. After many years of

service, she decided to take a break and explore her creative side.

Mrinmay's artistic journey began by exploring different mediums and she found Watercolour as her greatest companion. It is the unique qualities of watercolor like transparency ,spontaneity and the ability to carry and use the medium where ever one's heart desire - is what attracted Mrinmay to that addictive and healing medium.Now she works on spreading the magic of Watercolours.

Last seven years Mrinmay was mainly focused on watercolor. In September 2015 she was appointed as the Country Head of International Watercolour Society - UAE. In December she was also nominated as the Board Member of Advisory Committee 2015 till 2020 for the International Watercolour Society - Globe. Recognizing her contribution towards the Watercolour International Watercolour Society invited her to Turkey International Golden Brush Festival as a special guest.She promoted the watercolour medium through various activities like Workshops, Plein Air, Watercolor meet ups, Exhibitions, Masterclasses, National and International Festivals.

December 2015 Mrinmay was appointed as the gallery Manager of Cartoon Art Gallery. There she worked to promote both cartoon and watercolors. Remembering how she longed for an opportunity to associate with a gallery and exhibit she with the support of the gallery owner, Mr. Melvin Mathew gave a platform to identify and nurture budding talents in the region. Very soon ,Cartoon Art Gallery became a popular gallery



Gray Leaf-eared Mouse (*Graomys griseoflavus*)

© Mrinmay Sebastian



Morning dew kissed glory-watercolor



Flamingos Tales -Watercolor





for various creative events. It was also announced as the headquarters for International watercolor Society of UAE. It was also a “Second Home “for Mrinmay.

Mrinmay has exhibited her works in India, UAE and other International Exhibitions in various Countries such as Hungary, Albania, Vietnam, Indonesia, Prague, Nepal, India, France ,Switzerland,Bangladesh etc. Her works have found many happy homes. She also helped the local watercolorists to participate in many International events.

Mrinmay worked as Gallery Manager of the Cartoon Art Gallery till Feb 2020. She was happy to organize many Art events both for Professionals and Kids and amateurs and was also invited to be a Judge for many Art events across UAE.. Mrinmay’s paintings found many happy homes and palace with many dignitaries.

In Feb 2018 she organised the 1st International Watercolor Festival of UAE under the Patronage of Sheikh Mohammed Bin Faisal Al Qassimi. 50 Countries participated and they also created the longest watercolor painting of UAE. She has hosted many exhibitions, organized many prestigious events and masterclass of many Masters including Celebrity Artist Alvaro Castagnet, Atanur Dogan, Amit Kapoor ,Prfull Sawant ,Konstantin Strehov, Nader Mohabsin. Mrinmay also provided her service as Art Consultant, Curator, Watercolor workshops and demonstrations, Art Event organizer etc.

Covid 19 was a very tough period for a lot of them in the UAE Art scene. Cartoon



© Mrinmay Sebastian





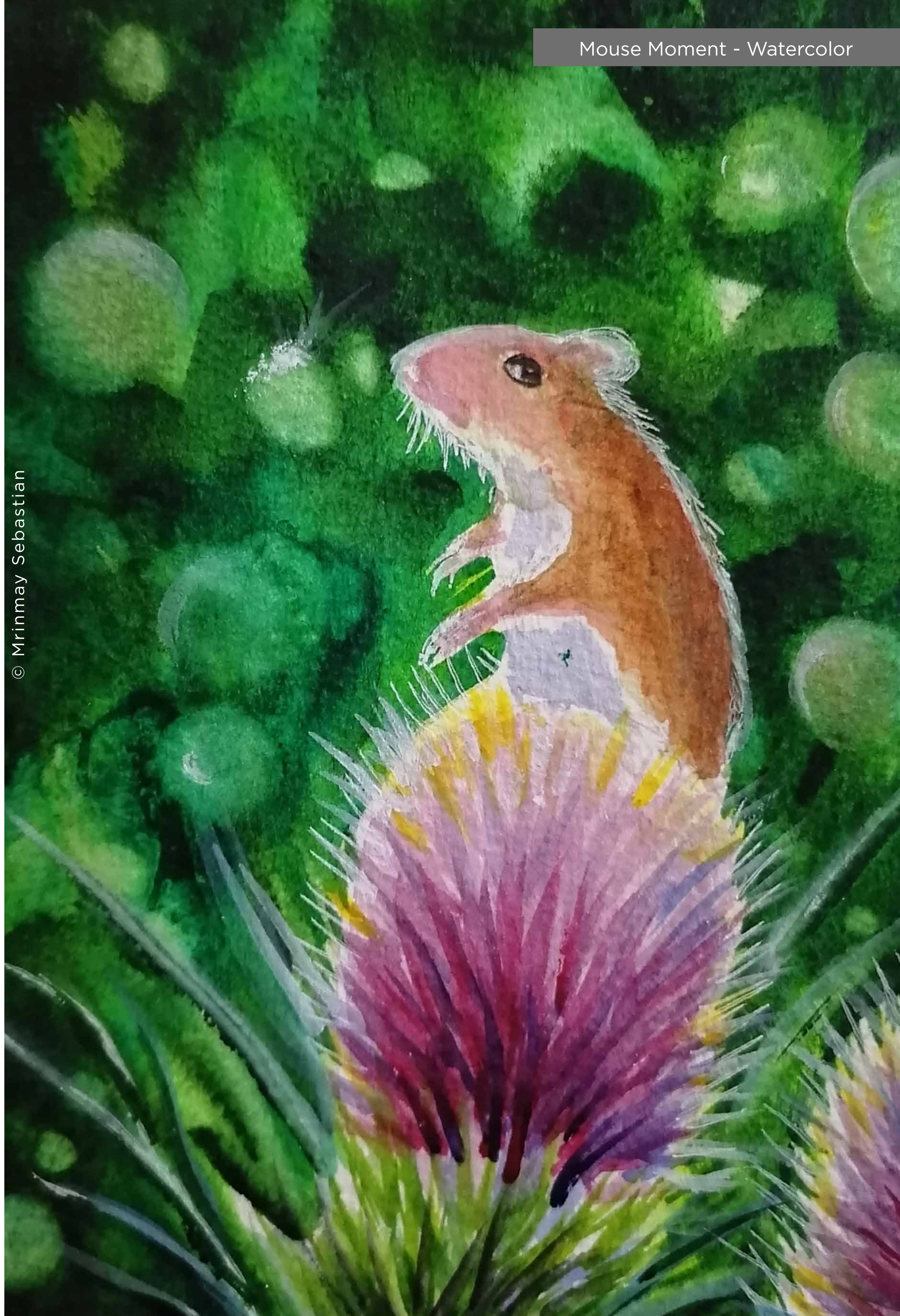
*Mrinmay C Sebastian*



The sparrow on a crabapple tree - Watercolor



Mouse Moment - Watercolor





Art Gallery closed. Mrinmay did many freelance jobs to support her family, during which she also managed to create many interesting works. She also got an opportunity to work with a US based author Kathleen Gronefled to illustrate two of her books for children. She was also appointed as the Brand Ambassador for UAE for the Artistic Paints from Russia, Nevskaya Palitra.

In August 2021 considering her contribution towards UAE Art scene, she was awarded the Golden Visa and a designation- Creative and Innovation Specialist.

Mrinmay is married to a loving husband, Edward Jose who is a Graphic Designer and her strength. She has two lovely daughters, Fionaa and Shannon who are also very talented. With the support of her family and friends Mrinmay made her debut in Malayalam Cinema- *NOBODY*.

Despite her hectic schedule, she still continues to paint her favorite subject NATURE. She believes that nature is the most inspiring subject for any Artist. Her favorite subjects are flowers, birds, animals, fish, landscape etc. She believes by painting nature - we move towards nature, inspire people around her to love and embrace NATURE. Holding her passion close to her heart Mrinmay has journeyed through life spreading colours and happiness around her.



When comes the spring - Watercolor

© Mrinmay Sebastian

© Natalia Suárez





Animals  
2013





Mirinmay  
19





YOUR GALLERY



Souvick Mukherjee  
Stump-tailed Macaque (*Macaca arctoides*)  
India





YOUR GALLERY



Chintan Gohel  
Caracal (*Caracal caracal*)  
Kenya





YOUR GALLERY



Subhash K.S  
Grey Heron (*Ardea cinerea*)  
Dubai

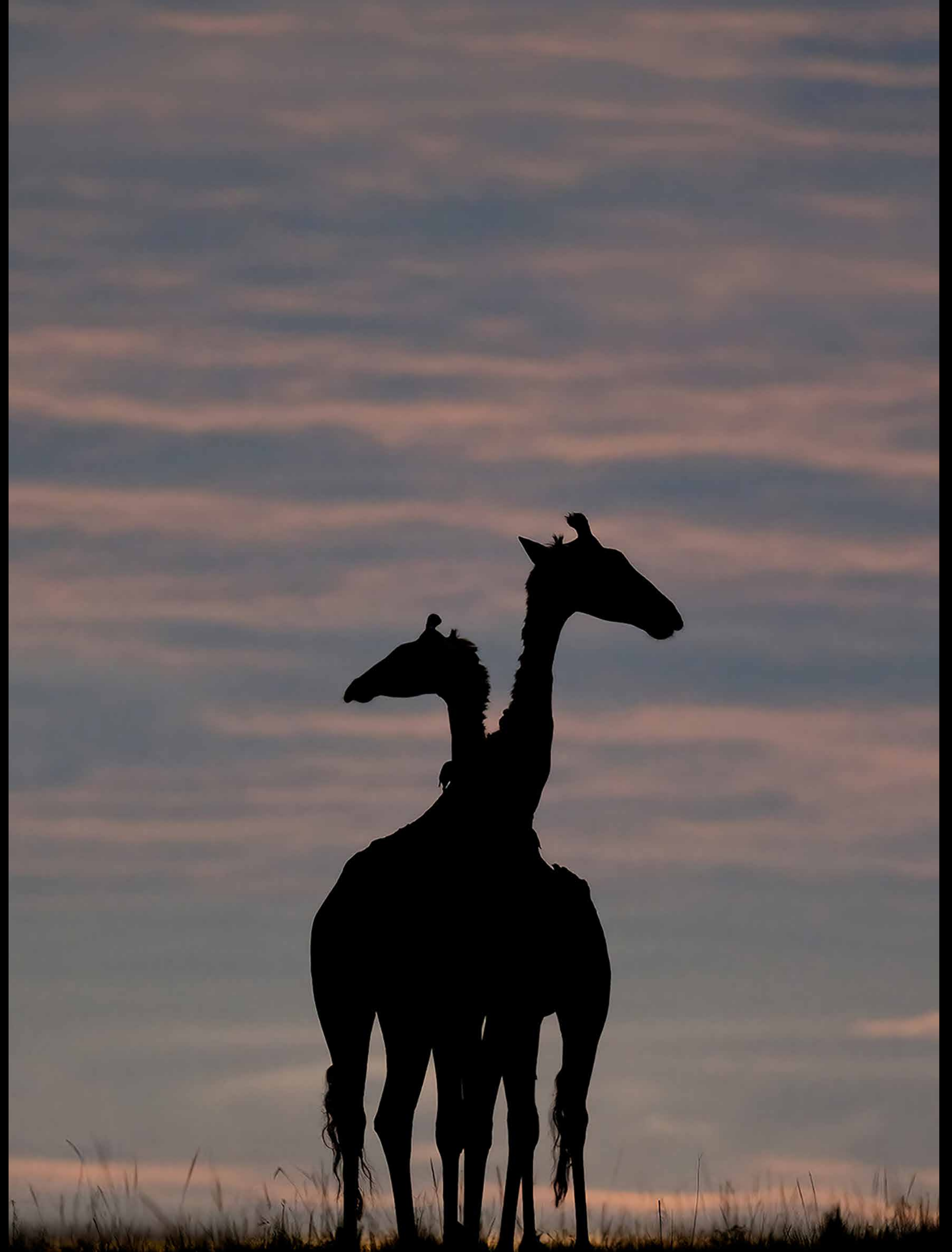




YOUR GALLERY



Biby George  
Leopard (*Panthera pardus*)  
Kenya



YOUR GALLERY



Biby George  
Giraffe (*Giraffa*)  
Kenya





YOUR GALLERY



Harikumar G.K.  
Black Swan (*Cygnus atratus*)  
Dubai





YOUR GALLERY



Chintan Gohel

Martial Eagle (*Polemaetus bellicosus*)  
Kenya





YOUR GALLERY



Arjun A S  
Arabian Sand Gazelle (*Gazella marica*)  
Dubai



YOUR GALLERY



Shijin C M  
Peafowl (*Pavo cristatus*)  
India





YOUR GALLERY



Sajeevkumar

Indian Pitta (*Pitta brachyura*)  
India





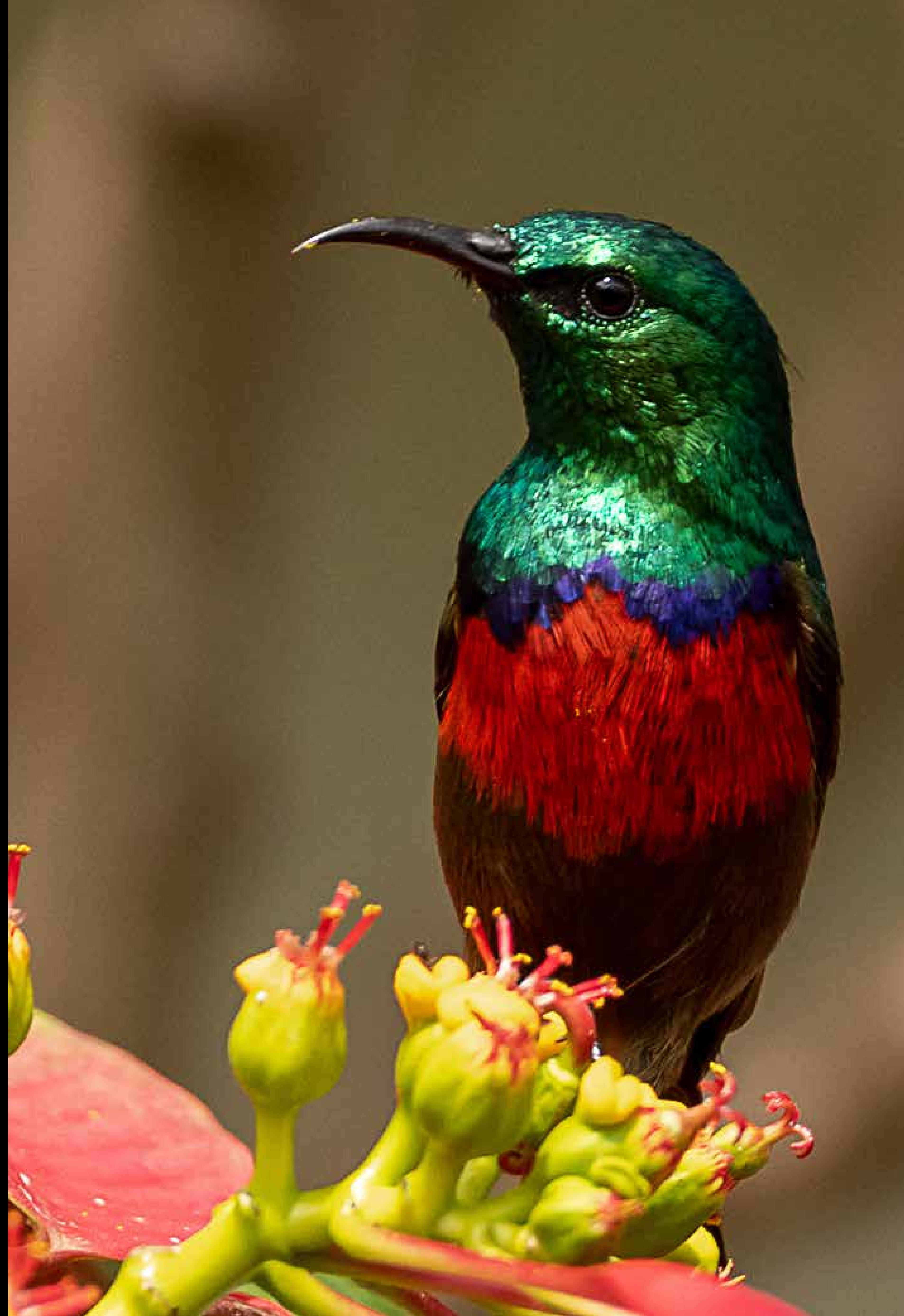
YOUR GALLERY



Dr. K. M. ANAND

Asian Green Bee-eater (*Merops orientalis*)  
Kerala, India





YOUR GALLERY



Kalika Shah  
Northern Double-collared Sunbird (*Cinnyris reichenowi*)  
India



YOUR GALLERY



Sandip Samani  
Rüppell's vulture (*Gyps rueppelli*)  
Kenya





YOUR GALLERY



Harikumar G.K.  
Black Swan (*Cygnus atratus*)  
Dubai





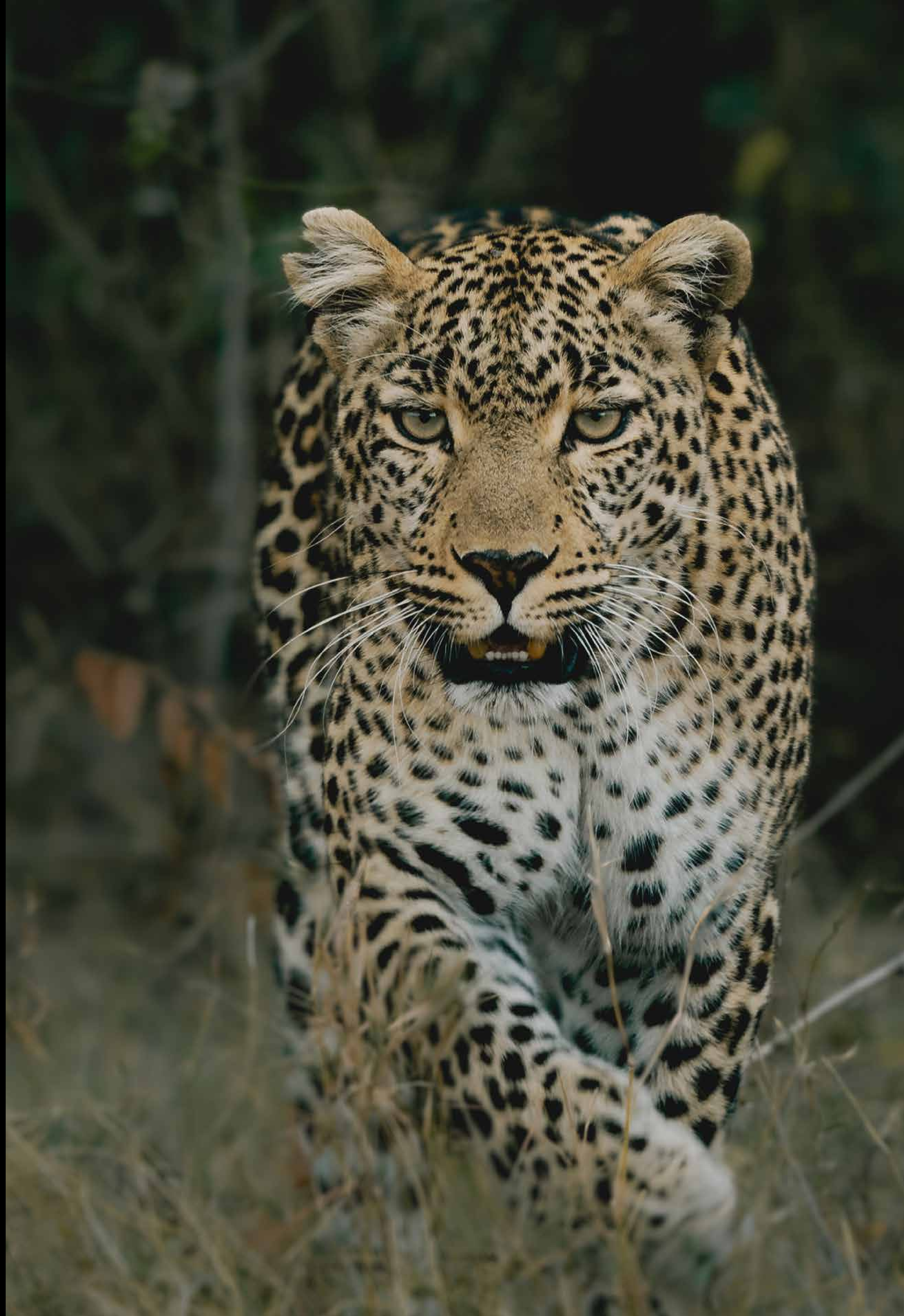
YOUR GALLERY



EXPLORERS

Sandip Samani  
Lion (*Panthera leo*)  
Kenya





YOUR GALLERY



Sibin Nelson  
Leopard (*Panthera pardus*)  
Kenya



YOUR GALLERY



Sibin Nelson  
Little Owl (*Athene noctua*)  
Dubai





YOUR GALLERY



EXPLORERS

Chandra  
Mute swan (*Cygnus olor*)  
Dubai



# PRI

EXPLORERS

UPCOMING  
FEATURES



© Donna Brok

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## FLORIDA WADING BIRDS

with Donna Brok

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© Bruno Ferreto Fiorillo

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## BRAZIL'S CERRADO

By Bruno Ferreto Fiorillo

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© Barry Van Dusen

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## WILDLIFE ARTIST

By Barry Van Dusen

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