SATIB CONSERVATION TRUST
WILDLIFE & COMMUNITIES

"GREEN WITH ENVY"

Electronic Newsletter of the SATIB Conservation Trust

Editor: bcourtenay@satibtrust.com

IN THIS ISSUE

***Autumn Edition** - May 2014*

FINAL VERSION 21/05/2014

As we enter the months of autumn, I must reflect on a few issues in the world of our beautiful wildlife heritage we all enjoy so much!

Wild animals in Africa are under such pressure from illegal poaching (for huge financial rewards), sport hunting, bush meat trade and natural mortality! The one issue I cannot accept is this continual indiscriminate poaching of rhino and now of late, elephants! What right do distant people in Asia have to deny me the privilege of seeing my rhinos and elephants?

What if we, as Africans, began a campaign of poaching "pandas" and "brown bears"? To satisfy demand for let's say "panda" body parts, as I believe these body parts will enhance my longevity! How absurd! What are we humans all about?

Someone who may have possible insight into the future of wildlife in Africa, and he speaks as an authority, as he experienced the massive decline in various species, was Peter Baird, author, conservationist and photographer, circa 1960, some 55 years' ago!

In his book, 'End of the Game' he comments "the game is both the hunt and the hunted, the sport and the trophy! The game is killing the game! There was a time when the hunter killed only for his life and food! 50 years ago man had to be protected from the beasts; today the beasts must somehow be protected from man!" Did he know something? Words from a wise conservationist in deed!

On a happier note, our Trust is proud to announce that we have had a very successful month in May 2014 - 4 vehicles have been donated for various research projects, which have been sourced from our business partners, and a joint sponsorship with Wilderness Foundation on a new Bat Hawk aircraft† purchased for anti-poaching and research work in Niassa National Park ñ Mozambique.

A huge thank you to our business partners - ***DHL Express*** for their continued support, ***Jaguar Land Rover*** for the Defender and Freelander vehicles, ***SATIB Insurance Brokers/Ivory Group*** for their sponsorship of core expenses and ***GWM*** for the 3 additional 4X4 vehicles for research projects! Watch this space for our reports on these vehicles!

Thank you to all our donors, in particular Matt Todd, Anderson Game Lodges, Leanne Henwood and Laura Bell - we are most grateful to you all for your support!

We hope you like our new logo - see page 13!

Yours in conservation

Brian Courtenay
Chairman
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SATIB CONSERVATION TRUST
WILDLIFE & COMMUNITIES

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SATIB Conservation Trust in a registered Non-Profit Organisation, NPO/PBO registration with SARS (930039588).

Registered Trust No. IT 18/2012PMB

IMAGES OF THE SNOW LEOPARD

Adam Riley - Rockjumper Birding Tours

Editors Note: These stunning rare images were kindly made possible by Adam Riley of Rockjumper Birding Tours - they conduct safari's / tours to remote special places so please feel free to contact Adam on:

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The 4,400 square kilometre Hemis National Park is the largest park in the whole of South Asia. It is accessed through the high altitude (3,500m) city of Leh, capital of Ladakh in Jammu-Kashmir State, north west India. Regular flights operate from New Delhi offering phenomenal views flying over the Great Himalayan Range. Ladakh, also known as Little Tibet due to the local influx of Tibetans after the Chinese take-over of Tibet, is situated on the border with Tibet but several hundred kilometers east of the volatile and disputed Pakistani Kashmir boundary. Leh and its surrounds are well worth exploring, in fact essential since its necessary for most people to acclimatize here for at least one full day before beginning their Snow Leopard expedition in nearby Hemis National Park.

Access to Hemis National Park is via a short drive to Zingchen and this scenic route offers the best chance for locating the long legged and large bossed Ladakh Urial also known as Red Sheep. The road comes to an end near the boundary of Hemis and from here it's an easy walk of less than an hour to the base camp in the Rumbak Valley (3,900m). Within the vicinity of camp and its surrounding valleys, 11 Snow Leopard are resident. The huge Argali, another species of wild sheep, also occur here. Wolves can be encountered anywhere in the park.

FOOD FOR THOUGHT..."Take nothing but pictures, leave nothing but footprints, kill nothing but time!"

The Snow Leopard leapt from its cover, bounding across the rocks in great leaps towards the young Blue Sheep. All three sheep took to flight, creating dust trails in their wake. The speed at which the Snow Leopard closed ground on the young sheep was remarkable as it barreled off the rocky outcrop to open ground, clearing a large rock en route.

Within seconds the Snow Leopard was on the hapless sheep. After careful scrutiny of images, it seems that the Blue Sheep lost its footing as it tried to escape but in the process it kicked up a load of gravel and dust, right into the Snow Leopard's face, temporarily blinding the cat. This gave the sheep a vital break and it was able to pull away from the leopard which kept at its heels but was several critical paces behind.

The two adult sheep has gone their separate ways, one heading downhill away from the danger and the other, possibly the younger sheep's mother, scrambling up a steep slope. At this point, our young sheep made a tactical error and instead of fleeing downslope, it tried to follow the upper sheep.

The slope became incredibly steep, almost vertical, and this gave the Snow Leopard its chance to gain ground on its shorter legged target.

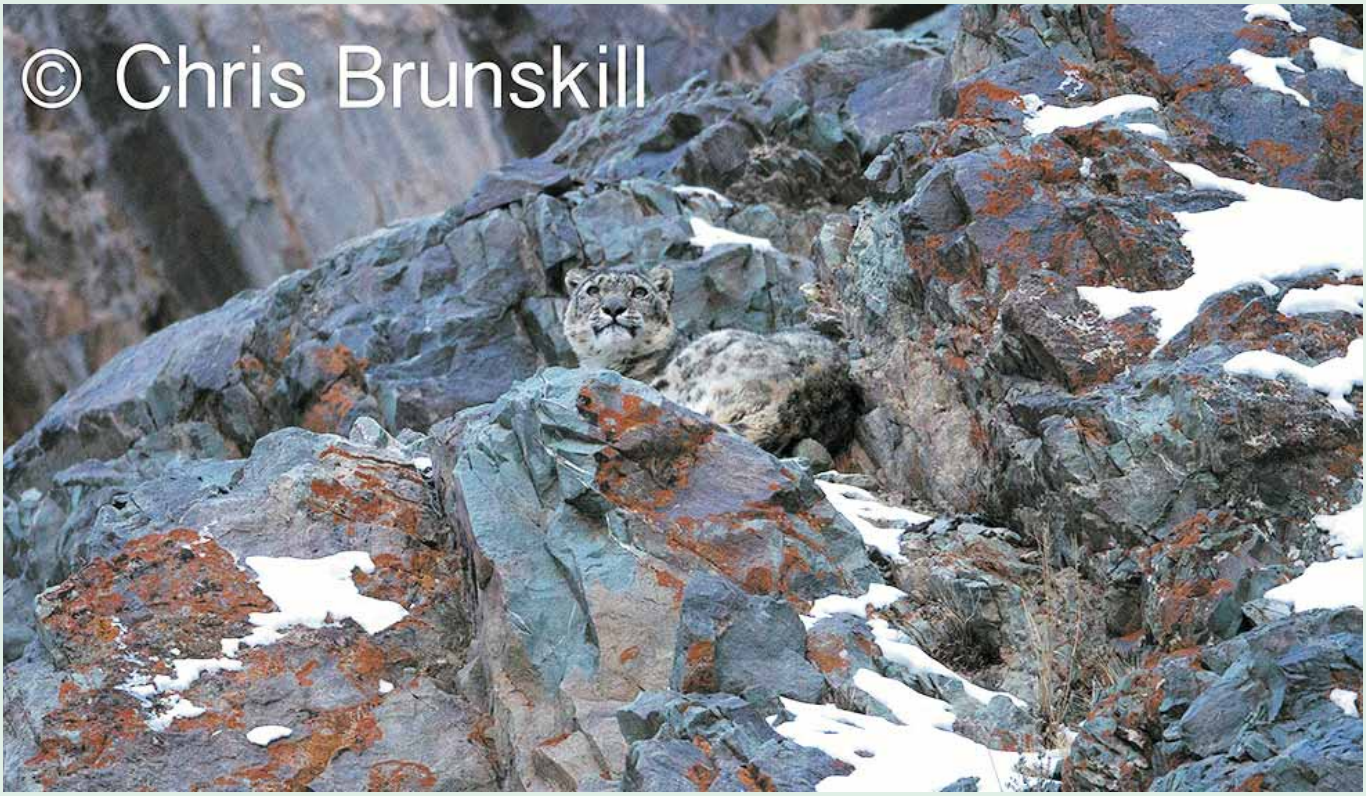
Finally the young sheep realized the leopard was almost upon it and bravely pulled a u-turn, heading back down the slope in the direction from which it had come. Snow Leopards have extremely long tails, up to a meter in length and besides storing fat, the tail is utilized as a 'scarf' in the winter. This tail is also a valuable rudder and balancing device, thus the Snow Leopard was easily able to perform its own abrupt u-turn and track the sheep back down the slope.

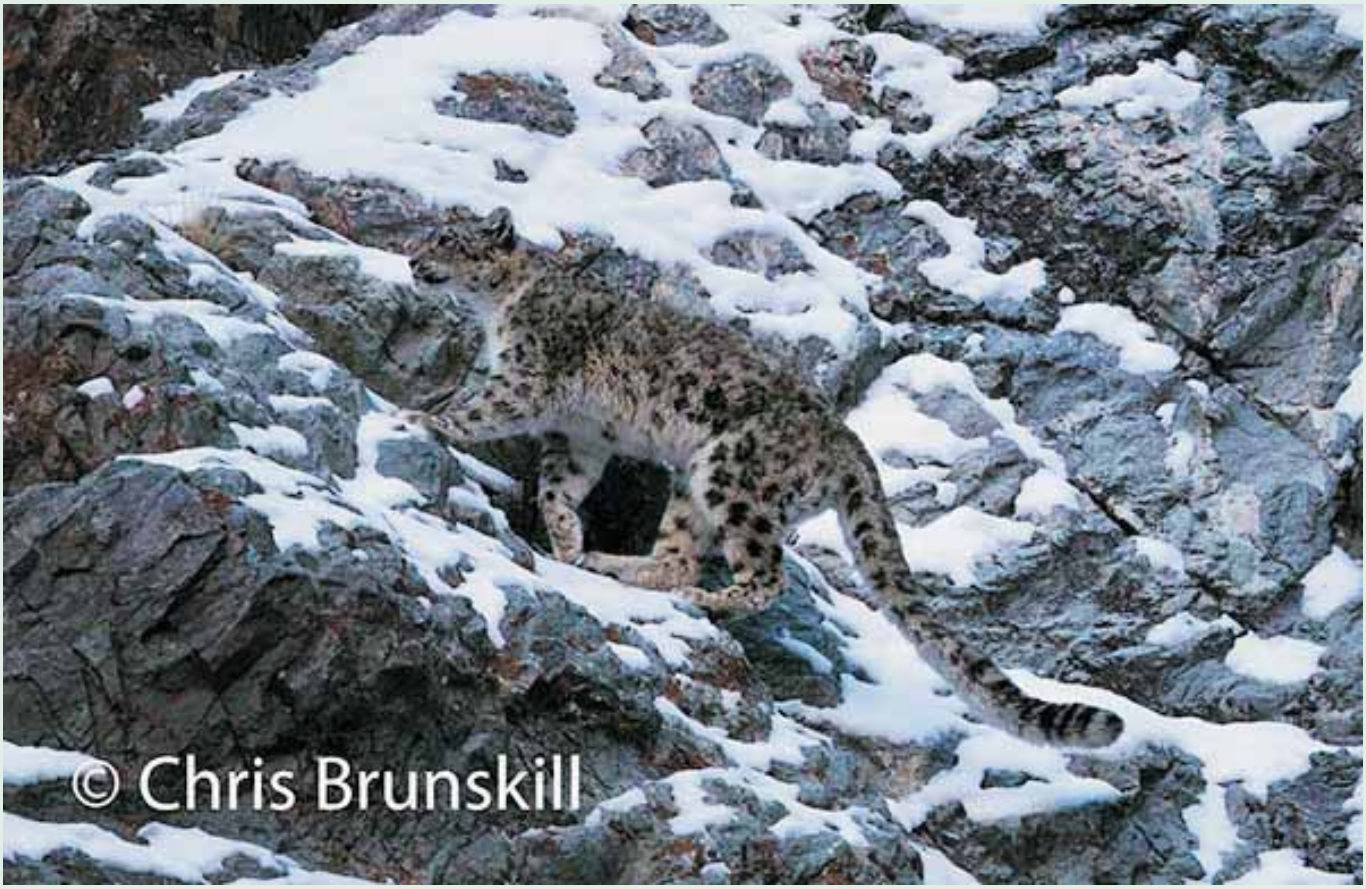
The young sheep cleared a massive jump, but it was the beginning of the end as it could not match the 15m (50ft) jumps that a Snow Leopard can achieve, and within moments the cat was right on its heels.

Extending a paw, the Snow Leopard seemed to ankle-tap the sheep and as it rolled, the cat leapt onto sheep and immediately latched onto its throat. This take at such high speed and on a steep slope meant gravity took its affect and the cat and sheep tumbled over and over each other until the Snow Leopard took control of the situation. The Snow Leopards' thick pelts have long been highly sought-after artifacts by the people who share its Central Asian range, providing amazing insulation in the cold, but another reason their pelts are so thick must be to protect the leopard when it takes rough tumbles across its rugged, rocky environment.

Only when it was certain the sheep was dead did our predator finally release its fatal grip and rest alongside its upcoming meal for several minutes catching its breath after such an extreme effort. For the first time in minutes, the Snow Leopard became aware of us again, ensuring we had not moved and were posing no threat on the opposite slope.

Editors Note: My good friend Chris Brunskill – Professional photographer and tour guide, sent me these images of Snow Leopards which he took whilst on an expedition to Northern India/Rumbak Valley. Chris conducts personal, either one-on-one safaris, or small group safaris, to India, South America and to East Africa. Please contact Chris on email: ***christianbrunskill@hotmail.com***





FROM THE EDITOR'S DESK…

I recently advertised for sale on Gumtree (similar to eBay) a 600mm Canon Lens.
To my surprise this was purchased by a certain conservationist, Nelis Wolmarans in Rwanda! In discussion with Nelis, who is an avid photographer (in my opinion a very good photographer),he explained that he is photographing gorillas in Virungas National Park.
A friendship has developed and Nelis has very kindly sent me an update on the gorilla status in this particular park, the article detailed hereunder.
Nelis has agreed to be a correspondent for Green with Envy, and we look forward to receiving further stunning images from him!

Nelis' update is as follows :

MOUNTAIN GORILLAS OF THE VIRUNGAS

First discovered in 1902 by Capt. Oscar von Beringe. 43 Mountain Gorillas were captured and killed in the twenty years that followed, all in the name in scientific research. Then in 1921, an American naturalist Carl Akeley came to the Virungas to partake in the hunt. He himself shot 4 individuals and afterwards felt great remorse for his actions and turned out to be one of the biggest advocates towards the saving of this amazing species. Akeley had the Virungas declared a National Park in 1925. This would be the first National Park in Africa, established 1 year before the Kruger National Park in South Africa, established in 1926.

In 1966, a young American woman, Dian Fossey came to the Virungas on request of Dr. Louis Leakey to start an intensive study on the Mountain Gorillas. Turmoil and civil unrest in the DRC, then called Zaire, forced Dian to flee across the border into Rwanda. In 1967 she settled in a very picturesque area between the two volcanoes, Bisoke and Karisimbi from which she derived the name Karesoki, which was to be the name for her research center.

Dian faced great resistance and difficulties in her struggles to ensure the survival of this species. Thanks to her relentlessness in her pursuit and dedication to what she believed in, we are privileged enough to today still be able to go up and view these magnificent animals in their natural habitat. Their numbers have risen from a very concerning 250 to the official figure of 880 today. Dian was also responsible for the startup of The Mountain Gorilla Veterinary Project, now known as Gorilla Doctors. Dian was concerned that the species will not see the turn of the century and had therefor put in a request for a fulltime veterinarian but unfortunately due to her untimely death on Boxing Day in 1985, she never saw this dream materialize only 6 months later. Dian is buried up in the forest at the Karesoki Research Center, next to her favorite young Silverback DIGIT, who was killed and beheaded by poachers at the age of 12 years. Some argue that Dian never recovered from the brutality and subsequent loss of Digits' murder. It was, however, Digits death that prompted Dian to change her view on giving the world access to the secret world of the Mountain Gorillas and their day to day struggle for survival.
The Mountain Gorillas are found in the 3 National Parks that make up the Virunga Massive.. These are the Virunga NP in the DRC, the Mugahinga NP in Uganda and the Volcanoes NP in Rwanda. A Separate island forest called Bwindi NP also in Uganda, makes up for almost 50% of the current Mountain Gorilla population of 400 out of the 880 individuals.

Fortunately for the Mountain Gorillas, the Governments of these three countries have come to realize the value of this natural asset that they have and the important role, which they play towards the development of tourism in their individual countries. Therefore, much more is done to ensure the wellbeing and survival of the Mountain Gorillas in the form of more regular snaring patrols, fulltime armed guards with each Gorilla family and better working relationships between the Governments and NGO's who's main focus is the survival of the species such as the Gorilla Doctors, the Karesoki Research Centre, Dian Fossey Gorilla Fund International and IGCP (International Gorilla Conservation Project).

No Mountain Gorillas have ever survived in captivity anywhere in the world and it is therefore much more critical for the species to be able to survive in their natural habitat. A very dense human population has encroached upon and taken over much of the land which was previously part the national park which is home to the Mountain Gorillas. The loss of their natural habitat has therefore pushed these animals higher up the slopes of the volcanoes where they are forced to endure the harsh elements at a much higher altitude than they would have previously. Fortunately, a recent study has shown that the Virungas can naturally sustain at least double the current Mountain Gorilla population and plans are underway to reclaim some of the lost land back and thus extend the park and therewith the home range of the Mountain Gorillas.

When spending time with these animals, you get to understand just how closely related they are to us humans, the gentle and protective care they give to their young, the playful behavior of the juveniles and the more boisterous behavior of the teenagers or sub-adults.

After a gestation period of only nine months, an infant weighing half the weight of a healthy human baby at approximately 1.5kgs is born. For the first two to three years, the infant will hardly leave its mother's sight. Females will start reproducing at eight years. When the young males reach eight years of age, they are referred to as Blackbacks. Two years later these males will develop a white/silver coating across their backs and from here on will be referred to as Silverbacks and considered as adults. A fully grown Silverback will weigh anything from 200 to 230 kgs of solid muscle and is more than ten times stronger than a big adult man.

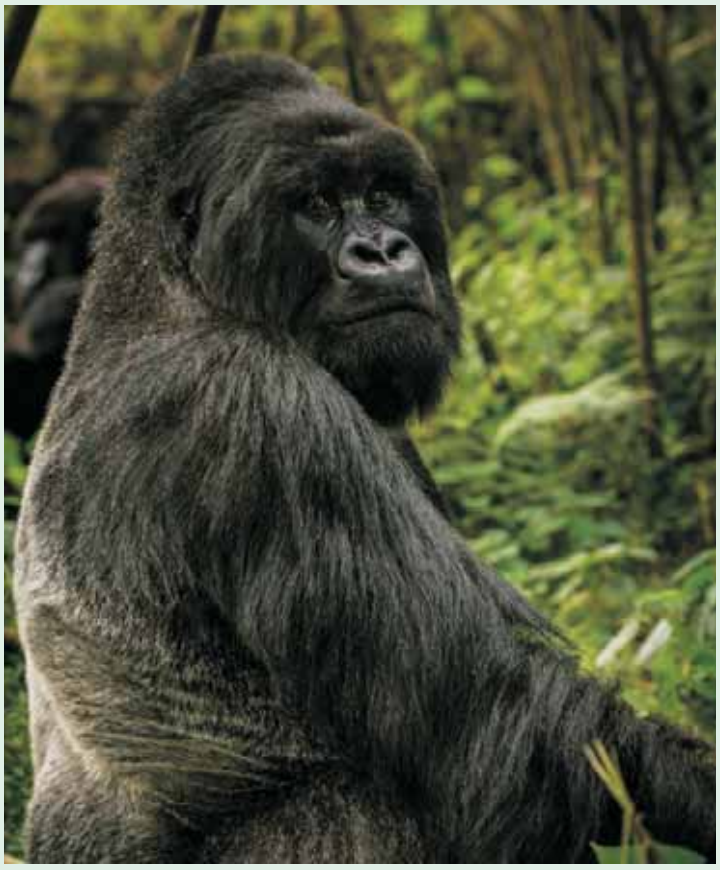
"A life changing experience", is probably the most commonly used term when tourists are asked about their Gorilla treks. To anyone able to do so, visiting the Mountain Gorillas in their natural habitat is an absolute must! Truly the Safari of a lifetime!

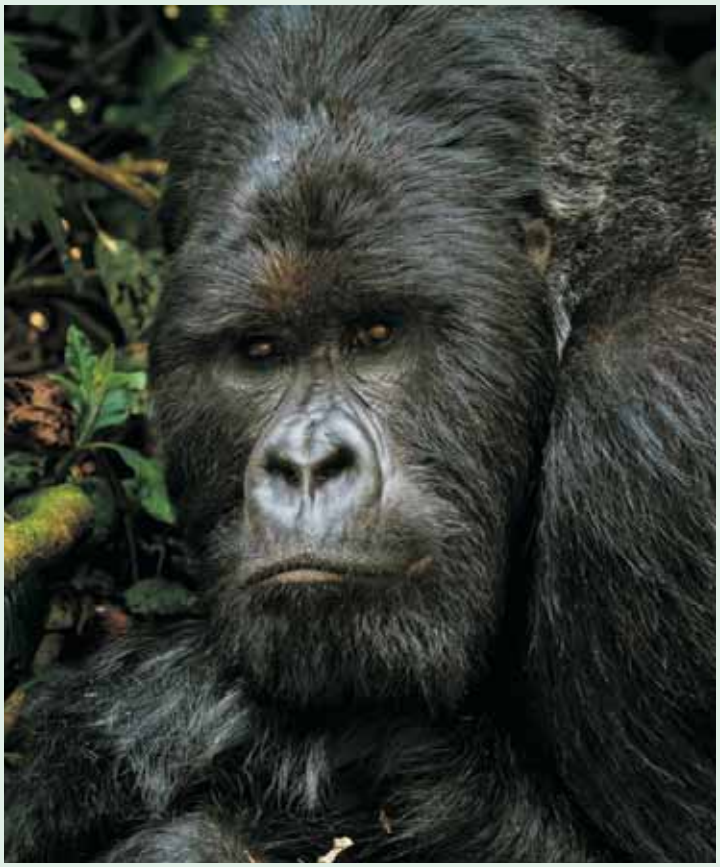
Thank you Nelis for this interesting article – it is great!

Should anyone want to contact Nelis, or has questions, please feel free to contact him on email NELIS nelisjwolmarans@hotmail.com

Kind Regards

BRIAN COURTENAY
CHAIRMAN – SATIB TRUST





PRESS RELEASE - May 2014

SATIB Conservation Trust, working in collaboration with Wilderness Foundation, donates a Bat Hawk aircraft for elephant anti-poaching.

SATIB Conservation Trust, working in collaboration with Wilderness Foundation on their Forever Wild Elephant Conservation Initiative, have donated a 6 cylinder Jaribu Bat Hawk Light Sports Aircraft, to the Lugenda Wildlife Reserve, which forms part of the greater Niassa National Reserve in Mozambique.

Elephant poaching in this reserve is at an all time high, with an average of 2 elephant being lost each day due to poaching. Matthew Norval, Conservation Director at the Wilderness Foundation confirms that the acquisition of the Bat Hawk will assist with anti-poaching and wildlife conservation in the Lugenda Wildlife Reserve, and that the plane will be deployed in the next few weeks.

The funds for this donation were made possible by SATIB Conservation Trust (SA) and the Wilderness Conservancy in the USA.

The Niassa National Reserve and the Lugenda Wildlife Reserve

The Niassa National Reserve situated in northern Mozambique was founded in 1954 while Mozambique was still Portuguese East Africa, but did not receive effective protection until the end of the Mozambican Civil War in 1992. Since then, the Mozambican government has taken steps to protect the ecology and associated wildlife of this magnificent reserve which is divided into seventeen management units: nine hunting blocks, six photo-tourism blocks (of which Lugenda Wildlife Reserve is one) and two zones of high biodiversity value. Niassa covers an area of 42 000 km≤ (10 000 000 acres) making it one of the largest protected areas in Africa (twice the size of Kruger National Park and comparable to the total area of Wales or Denmark).

The faunal component of the reserve is significant with approximately 12 000 Elephants, 14 000 Sable, 1 000 Lion, 350 wild Dog as well as some unique sub species including Niassa Wildebeest, Crawshays Zebra, Johnstons Impala and a number of small mammals. The number of bird species recorded is in excess of 400.

The Lugenda River cuts through the reserve over a distance of about 400km and along with the Inselbergs is a significant and prominent feature of the reserve. The Ruvuma River represents the northern boundary of the reserve and is the border between Mozambique and Tanzania.

SATIB CONSERVATION TRUST
WILDLIFE & COMMUNITIES

CONSERVATION IN ACTION

Learning by doing!

OUR MISSION

To understand the fundamental drivers of conflict between communities and wildlife and to be creative in developing and implementing sustainable solutions.

OUR VISION

An Africa where communities and wildlife live together in harmony as an integrated ecosystem.

"SATIB Conservation Trust, our 'Conservation in Action' program, works in many countries in Africa to protect wildlife and wilderness areas in partnership with local communities".

Brian Courtenay - Chairman
SATIB Conservation Trust

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Lion Conservation

In 2013 VFWT in collaboration with Oxford WildCRU Hwange Lion Research project, initiated a survey of the lion population in Zambezi and Kazuma National Parks and the surrounding safari areas. VFWT conducted spoor transects of different land use types to gain a better idea of prey and predator population num-bers. In addition two satellite col-lars were fitted onto adult female lions to monitor their spatial movements. Both females were part of a larger pride of lions in which we will be continuing to monitor.

Rhino Conservation

In September, VFWT was able to work together with the Dambari Wildlife Trust to assist Zimbabwe Parks and Wildlife Management Authority in their efforts to con-serve the rhino population remain-ing in Matopos National Park. VFWT wildlife veterinarian Dr. Chris Foggin, and Wildlife Manag-er, Roger Parry immobilized black and white rhino to ear notch new individuals. Ear notching helps anit-poaching patrols identify indi-vidual animals in their work on the ground tracking each animal. The team also dehorned each animal that was immobilized as per the National Parks strategy to curb poaching in the area. Dehorning rhino can help deter poachers who would potentially get a lower payout for the low amount of rhino horn if it were sold illegally on the black market

Disease Surveillance

VFWT have been collecting samples of tissue, blood and hair from a range of different species. In the last six months VFWT has ex-panded its efforts to test cattle for a range of diseases including, bo-vine tuberculosis in different areas throughout Zimbabwe. This dis-ease can be carried by wildlife such as buffalo and when cattle and buffalo come into close proximity the disease can be transferred. During recent vaccination campaigns of cats and dogs, VFWT has also collected samples from dogs to test for diseases such as ehr-lichia and distemper which also have spillover effects into wildlife species. VFWT continues to run disease research on crocodile dis-eases to determine how the diseases are circulating.

Laboratory

Over the last few years VFWT have been working hard to build and equip our wildlife laboratory. This year we are very happy to announce that we had our first annual inspection and registration of the lab by the Zimbabwe Veterinary Council. The lab is now of-ficially open! The plans are to provide services in vet-erinary histology, pathology, basic serological testing, and our work with DNA technology in PCR disease diagnostics. We would also like to thank International Wildlife Health Institute and their supporters from Jorgensen Labs and Rocky Mountain Microscope for kindly donating our new isoflorane anesthesia ma-chine and dissecting microscope and flying the equip-ment all the way to our facilities!

Project Update

The KGALAGADI LION PROJECT has now been in action for ten months and we are well and truly settled in. Although we spend most nights or days working in a different part of the park with different lions, under different circumstances and there is just so much space that the park still sometimes feels like a completely unfamiliar and somewhat alien landscape. We have now covered 18 000 kilometres of driving through the park in search of lions and this is still only a snapshot of this magnificently wild place.

These months have not been without their challenges, between having to replace our research vehicle and continuously being in a state of jetlag from swopping between a nocturnal and diurnal life, regardless the project is well and truly on its way. By the time you read this newsletter we would have spent well over 100 days/nights in the field searching, tracking and most of all waiting for lions. We spend a lot of time waiting for a lion to stop doing what it seems they do best, sleeping… It is mostly when this favoured of activities ends that our work really begins and the data starts rolling in.

During our hours and days and nights under the Kalahari sun, moon and stars, we haven't just been trying to stay awake while the lions sleep. So, to give you an idea of what we have achieved thus far, we will provide you with some figures of our findings over the past ten months. This data is the crux of the project and has come to mean a lot to us as aspiring researchers and is the measuring stick we use to

guide our decisions and at times, measure our success. It is this information that will ultimately be used to determine the state of the lion population.

We have now identified 144 individual lions using photographic evidence and whisker spot pattern verification derived from direct observations as well as public and staff photographic submissions. We consider this a great success but, this is still only the start. It is only now that we start seeing associations between individuals, movement patters, and birth and mortality rates. The effort it has taken to sight the now 264 individual lions over 91 sighting events can be broken down to approximately 2.56 lions sighted per observation day at an average distance of 65 kilometres travelled per lion sighted.

Spatially, the identified population are known form 27 individuals in the northern Nossob River, 40 in the southern Nossob River, 43 in the Auob River and 18 individuals from the dunes (more than 10 kilometres from the riverbeds). As has been found by previous lion research in the park and as we are starting to see, these creatures move immense distances between the riverbeds and dunes. We have followed a pride for 17 kilometres through the dunes in search of food and have followed spoor exceeding 20 kilometres of a male patrolling his territory.

With regards to the biased gender ratio of the population we are noting a bias towards males particularly in sub-adult (2-4 years old) and juvenile (1-2 years old) age classes. But, it is still early days and as you have seen, much can change as we gather more data over time.

Lion in Body Condition 1

Lion in Body Condition 3

Lion in Body Condition 5

Looking back at previous newsletters you may note that there has been some change in these figures mentioned above. We have been having improved success rates in terms of lions sighted per day and per kilometre. The more effort; the more data; the bigger the picture. This really is very rewarding.

Another aspect of our research is ascribing body condition indices to individuals when we see them. We may use this later to determine whether there is any relationship between body condition and the noted gender skew. We may also find whether there are seasonal changes in condition in relation to prey movement across the park and in different areas in the park. Body condition indices are ascribed on a scale of 1 to 5. For example a lion in poor body condition (e.g. ribs and backbone protruding, poor muscle tone, poor coat condition etc.) receives a score of "1" and a lion in excellent body condition receives a score of "5" (see pictures on previous page). At this point in our data collection the average lion body condition of all known individuals seems to be good (averaging 3.7). Overall lion body condition seems to vary little between the various river systems and seems to be slightly better in lions found in the dunes. The individuals observed to have a poor body condition have mostly been old lions.

Determining Lion Diet

In determining lion diet we use a combination of methods including; stable isotope analysis of lion whiskers, scat (faeces) analysis, GPS cluster analysis and direct observations. Thus far we have observed 56 lion feeding "events" between June 2013 and January 2014 using these methods. Most contributions to lion feeding events have been derived from lion scat. Thus far gemsbok has been the most commonly consumed species followed by wildebeest. Other species on the menu include steenbok, springbok, porcupine, hartebeest and even a little jackal.
Using scats (faeces) to determine the prey species consumed is the type of job one would normally turn ones nose up at, but this is a critical method in identifying lion diet. Scat analysis importantly identifies smaller prey items such as steenbok and porcupine which is typically hard to identify using one of the other observation techniques.

Lion scat is collected when encountered from across the park and is identified using shape, diameter, colour, ingested hair and lion spoor. Collected scat is sun dried and then soaked in water overnight to soften. The scat is then washed through a sieve to collect undigested material such as hair, hoof and bone samples of the prey species consumed. Hair samples extracted from scats are assessed under a microscope and compared to a reference library of prey hair to identify the prey species consumed.

GPS fixes of lion localities from GPS/VHF collars are used to identify concentrations of GPS co-ordinates (cluster points). Where lions remain in the same place for more than four hours, at night we to these clusters of points and searched for lion scat or evidence of a kill.

Scat is collected when encountered in the field

It is soaked overnight to soften and then washed

A sample is taken from the scat contents and sterilized

A 'strip test' is done to reveal the hairs scale pattern

Hairs are then mounted in wax and a cross section is taken

The strip test and cross sections are observed under a microscope for identification

The Lions

We can now identify 144 individual lions using photographic evidence and whisker spot patterns. We have noticed an increase of lion activity in the riverbeds during the hot summer months. Lions will possibly drink more frequently during summer. Much of the game has moved into the riverbeds to forage on the fresh growth. Even so, it seems as though the lions are still mostly moving into the dunes to hunt. The summer months are tough as there is limited game in the dunes and a number of lions are showing signs of a poorer body condition.

CURRO – HILLCREST CHRISTIAN ACADEMY – CHILDREN CARING FOR OUR RHINO'S

It was a wonderful and truly inspiring evening spent with Mrs Carey Roberts and her pupils of "Curro" Academy. 650 works of art from future and potential Michael Angelo's! I was absolutely amazed at the talent of these pupils, in producing what they saw and visualized on the plight of our rhinos. I found the concept even more creative – sell the artists' work back to the parents, which raised a mind-blowing R10 000! Truly an unbelievable and creative way to raise funds.

In discussion, Carey commented as follows :

Curro HCA

"SAVE THE RHINO" ART EXHIBITION!

Curro HCA pupils from Grade 1 to Grade 8 produced a Rhino Art Masterpiece. The pupils used a wide range of techniques and mediums. Emphasis was placed on using recycled materials to create beautiful art. The message to the learners was that amazing art can be made from products that we throw away. These projects could also be done in rural areas to educate young children about Rhinos.

The Art was displayed in a special "Save the Rhino" Exhibition. Over 700 Rhino masterpieces were exhibited. A huge 3 dimensional mothers and baby Rhino were the centrepiece of the exhibition, these was made from reused wood and recycled bottle tops. The Junior Primary pupils also made a magnificent "Save the Rhino" mural out of bottle tops, corks and coffee pods.

The exhibition had a glittering school opening with the Choir, Drama and Marimba teams preforming. A culmination of the performance was an ensemble of all the groups performing to the hit Michael Jackson song "What about us"; the words were changed to "What about the Rhino's".

Parents were asked to purchase their children's work and a massive R10 000 was raised. The money raised will go directly to the EWT Rhino fund.

SATIB Conservation Trust appreciates the donation of R10 000, and as a Trustee of Endangered Wildlife Trust (EWT), who have established the Rhino Project, the money will be donated to EWT to further assist them in their conservation of rhinos!

When a Martial Eagle comes gliding in and lands on top of a leafy Jackal Berry, the auditory alarm calls start up right away. It is the vervet monkeys who spot the Martial and start with their loud cauw calls while leaping around in a tree some distance away and staring with aggressive stance at the eagle. The squirrels having been warned by the monkeys then start up their own noisy display; a monotonous mantra accompanied by tail flicking and staring in the direction of the eagle. A group of gueniefowl join in the cacophony, rushing around and chirping loudly like panic stricken chickens. The eagle has been spotted and his location successfully communicated across multi species, the likely hood of a successful kill now is very remote.

Can it be possible that these animals that are all preyed upon by Martial Eagles can communicate specifics with each other? Or is it simply the sharp repetitive nature of alarm calls that indicates the presence of danger to other animals? Certainly the squirrels were able to locate the martial by following the direction the monkeys were staring in and then scanning for the danger. They may not have known what they were specifically looking for.

Monkeys have been widely studied with regards to their semantics or communication skills. They have been known use different alarm calls for leopard, python and martial eagle that then evoke a different response for each. While the python alarm would cause the monkeys to stand bipedal and search the ground, a martial alarm would result in monkeys diving for cover and scanning the skies. Leopard sightings have monkeys scaling trees and scampering onto smaller branches out of the leopards reach. With all predator sighting the monkeys will locate the predator by watching the individual that is alarm calling.

Dwarf mongoose are thought to share these sophisticated semantics and have an auditory alarm call for "predator on the ground" and a different one for "predator in the sky". However then, when the dwarf mongoose do dash for cover, they will no doubt disturb the hornbills foraging alongside them, who will scatter more from a general disturbance than specific warning.

Herd animals like zebra and wildebeest that often graze side by side, undoubtedly warn each other of the presence of predators. This is likely a response to a combination of the alarm calls and the stance the animal takes when sighting a predator. Members of impala herds who have sighted the predator will stop eating and all face the intruder with their head held high and body alert and legs somewhat spread out. Giraffe are often an indicator of predators. Their smallish ears are pale at the back and when they are staring intently at a predator they act like a beacon.

It does make you wonder how much of the other means of communication can be inter-specific? Not all communication is audio or visual, much of it is by smell; using urine and dung as well as various scent glands in many animals.

Can a lion glean any information from a hyena pasting and is it even of any interest since the lion has nothing to gain from this information? Is the urine a rhino bull sprays when he patrols his territory for rhino interpretation only?

Middens are dung heaps widely used by rhino, impala and steenbuck (among others). They serve as communication posts too and mark territories to other animals of the same species. Many animals have been known to use the middens of other species, being as diverse and intriguing as impala dung and civet scats in a rhino midden.

While it seems most animal communication is species specific and aimed only at those that can make use of it, there does seem to be some overlap to animals of other species that inadvertently helps with their survival.

By: Dr Kate Evans
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For over ten years I had the privilege of living in the Okavango Delta in Botswana, often cited as one of the few remaining wildernesses in the world. My adventures started in 1997 in a very simple camp working on foot to try and understand the affects of the flood on the dynamics of the territorial hippo. Living in the bush and carrying out research on foot was a steep learning curve for a young girl fresh out of university with a lot f theory but very little bush experience. Thankfully my training in the school cadets set me up well orienteering and camping skills, so I managed to survive and thrived off this simply lifestyle immersed in nature. The experience was phenomenal and set me up for 10 years researching the elephants of the Delta, spending most days out in the middle of nowhere not seeing another soul. As much as I loved it and it gave me the opportunity to understand elephants, there was a niggling feeling that I was missing the bigger picture that this oasis was exactly that, and beyond its boundary s was a world threatening the survival of the African elephants. Elephants for Africa needed to become just that and use our knowledge and expertise to address the conservation needs of elephants and the socioeconomic needs of communities living alongside wildlife to build a world of human-wildlife coexistence to secure the future of Africa s iconic elephant.
(During my time in the Delta, the pressure on elephants was increasing, reports were coming in of poaching and the illegal ivory trade rearing its ugly head throughout the continent, it would take a few more years before the international press started waking up to the tragedy and the international community to realise the enormity of the issues and the potential for the extinction of the elephant in our life time.

During my time in the Delta, Elephants for Africa hosted an Elefun weekend for young community members from Gumare, a village that borders the Delta. It was one of the most rewarding experiences I have ever had the privilege to be involved with. These kids were full of aspirations and hopes for their futures and in Botswana this is so often linked to their wildlife. Many came with a fear of the unknown, having only ever experienced wildlife in a conflict situation and here they were able to experience wildlife in a wild and peaceful setting putting many of those fears to bed. They also got the opportunity to meet people working in ecotourism and conservation, someone to aspire to be.

Since leaving the Delta in 2012 and relocating to the Makgadikgadi National park and the banks of the Boteti River, we are living on the harsh frontline of conservation. As pressure mounts on Botswana s borders with increasing incidents of elephant poaching and the bush meat trade rife throughout the country, the frontline of conservation are the communities themselves, they have a very clear and deep understanding of the land and all that is going on it and will be the first to know of any illegal activities. Valuing natural resources means people protect them as they benefit from them. In 2012 we launched the Conservation Leadership Program for Youth in Botswana in partnership with the Chicago Zoological Society. Working with experts in the field of environmental education, local educators and partners we are developing citizen science monitoring programs that will better equip local youth to prevent conflict with elephants in the communities, while helping youth develop skills needed for future employment in environmental jobs. Ultimately, our goal is to build a citizenry that values live elephants as a natural resource and increase local capacity for innovation to deal with human-wildlife conflict, thereby increasing food security and sustainability of liveilhoods for the communities living alongside wildlife and secureing a world for elephants.

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EDITOR'S NOTE:

My association with Saba Douglas-Hamilton (Pope) goes back a few years. Saba as a presenter on the famous and popular TV documentary "Big Cat Diaries" has worked, through Satib Insurance Brokers, for specialist insurance coverage needed by the production company "BBC Wildlife – UK", and we have assisted her and BBC in providing such insurance covers.
For the past couple of years, Saba has been raising a family, but she is now back presenting Big Cat Diaries.

Here is her wonderful story of a typical day in her life:

"Our children are called Selkie, Luna and Mayian (the latter two of whom are twins). Selkie is named after the seal-spirits of Scotland, Luna is Italian for "moon", and Mayian is a Samburu word for "blessing", which happily touches on the many different tribal influences in our lives! The surname is Douglas-Hamilton Pope.

Before I had children I was a wildlife filmmaker specialising in big cats, elephants, great apes, polar bears, anything that roamed free in wild places that were difficult to get to. The harder the better, in fact. The icy wastes of the Arctic, the leaf-littered Central African rainforest, savannah, desert, ocean - in each I set my reverent feet and thanked the Universe for all creatures great and small. But my life flipped 180 degrees when our kids were born. I dedicated myself to being the kind of mammal I'd often filmed - an attentive mother in her den, patient, gentle, ferociously defensive, and head over heels in love with her "cubs". Giving birth changed everything, and I nested happily for five years with my husband, Frank Pope, in our ramshackle house on the outskirts of Nairobi, immersed in a bubble of love. Yet all that time, the call of the wild howled like a hungry wolf in my heart, and I yearned to be exploring an unfolding horizon, amongst diverse sentient beings. So when the family business needed a stand-in manager at our safari camp, Elephant Watch, on the banks of the slow-flowing, mud-red Ewaso Nyiro river in Samburu National Reserve, Kenya, I leapt at the opportunity, stuffing the kids and their unbelievable amounts of luggage into the car, and racing North.

Samburu is part of a vast frontier, just north of Mt Kenya, that slides from cool cedar-forests down an impressive escarpment into hot, arid acacia woodland, jagged mountains, and on into the lava-spewed deserts bordering Ethiopia. Our safari camp is on one of the main rivers to the south, hidden amongst trees in a tall, sparkling acacia forest - an habitat that we share with a host of delightful wild creatures; crocodiles, genet cats, ground squirrels, dik dik, porcupines, monitor lizards, hornbills, civet cats, mongooses, leopards and elephants among others. Eight kilometres downstream is the Save the Elephants research camp, founded by my father in 1997, where Frank works closely with the STE field team as their Chief Operations Officer. Focussing on long-distance movement and daily monitoring of the Samburu population of about nine hundred elephants that roam through the wild north of Kenya, our team have come to know each individual elephant by name.

Elephants are easily identified by looking at the outline of their ears and the shape of their tusks. It really doesn't take long to get the hang of it. As their faces start to click into focus, one finds that the other family members quickly fall into place too. It's a satisfying feeling. We name them by categories like the Winds, the Storms, or the First Ladies. Their complex social interactions and intelligent curiosity have resulted in seventeen years of minutely recorded behavioural data that has opened up the secret lives of the Samburu elephants in the most extraordinary way.

This last month, a BBC film crew joined us to make an observational documentary about life in the bush with our small family, working side by side with Samburu nomads at both Save the Elephants and Elephant Watch Camp. A typical morning starts with the low chat of Verreaux eagle owls on their favourite perch by the Mess tent, or vervet monkeys alarming at the low-slung presence of a cat. Dancing acacia leaves scatter the early morning light as we drink our tea, and the river sighs by in a soft rush. Then the children arrive, clamouring at the door "Maaaama! Fungua 'lango [open the door]! Taka chai [want tea]". Just two and a half years old, the twins baby-talk Kiswahili better than English - it's often much easier to keep on speaking Kiswahili if one wants to be properly understood. Selkie, their older sister, fluent in both, leaps into bed for a cuddle.

After breakfast I jump into the Land Rover to join the film crew. A female elephant is sick - Cherie, from the First Ladies. She has a five month old calf. She keeps stretching out her back legs or leaning uncomfortably forward, as if trying to ease pain in her stomach. Apparently she's been like this for weeks. Her calf tries to suckle but she brushes it off the nipple with her leg. At this age he relies almost entirely on her milk. I notice her deeply sunken temples, and the sharp pinch around her cheekbones. Signs of dehydration. This is serious. We wait and watch for days, finding her mostly alone with her calf, now unable to keep up with the herd. She takes to resting on raised edges of roads or sloping river banks which make it easier to get to her feet. I sense her determination to live for the calf. But she's dying, and without milk the calf starts losing condition.

We call the Kenya Wildlife Service vet, but he feels that Cherie is too far gone so survive being tranquillised. He asks us to keep on monitoring her. Night falls and Cherie finally collapses. The calf nudges her emaciated body with its head, encouraging her to rise, then lays its trunk softly across her hip and leans in close for comfort. They stay like that for a long time. It's so quiet. So dignified. There is clearly so much love in this deeply private moment. For the first time in my life I pray that an elephant will die. But she is hardier than I imagined. The night passes, and another long day goes by. I've barely slept a wink. Somehow she just keeps on getting up and walking away.

Elephants have a strong sense of their own mortality. So does she know that she is dying? Is she struggling on because her calf is so young? Would she otherwise have given up a long time ago? In these terrible days of poaching, it is most unusual to be watching a natural death and I am deeply aware of the sad privilege. I just wish I could ease her pain. The poor vet is faced with a hard moral choice. She has lost her milk and the calf is rapidly deteriorating, so does he save the mother or the calf? Convinced that there's no hope for Cherie, he requests permission to euthanise her before the calf becomes too weak to survive. But the go-ahead must come from way up the KWS ladder, so we have no choice but to wait.

Gazing up at the star-scape later in the evening, taking the second watch, I wonder if she has noticed the intense beauty of the night. Perhaps it will be her last in this shimmering, moon-lit landscape. The calf eats leaves and grasses nearby, but I see that he has trouble controlling his little trunk and much of the food drops to the ground. He must be so hungry. She rests a long, long time, then suddenly gets up and stands ghostlike on the edge of the riverbank. Gathering her courage she launches into a long-legged stride, disappearing into a thicket with the calf. I lose them completely in the darkness. Depressed, tired, and dreading every possible outcome of the morrow, I drive back home, the rough familiarity of the Land Rover providing some comfort. If she dies tonight, I think, we will make every effort to rescue the calf and give it a second chance at life. That, my beautiful Cherie, I promise.

In bed, I listen to the frogs down by the river. A Scop's owl calls, cicadas sing, and a lion's roar echoes off the far side of the river bank. Our room is simple, humble even. We only have the most basic things we need. But, here, where each hour is marked by a fresh croaking, burbling chorus of animal life, I feel like the richest person in the world - bejewelled by the sounds of the night, perfumed by the purest air, clothed in the softest darkness hung with stars - doing what I love.

We find Cherie back with her family the next morning, eating the branches of a Commiphora. The Samburu tell me they use its roots as medicine for stomach ailments. It seems to be the one thing she likes, but she eats it only at night. Biodynamic bio-medicine? She certainly seems a little stronger. The vet feels there is no way he can now justify putting her down, not when she clearly has such a will to live. Against all odds, she just might pull through. But the calf is suffering. Surrounded by family it feels secure, and is comforted by the presence of its mother. It's making a valiant effort to eat and drink, but I fear that without milk it will die. There is nothing the vet can do. He heads back to HQ, a two hour drive away. Keep on monitoring, he says. But I have to leave Samburu. The BBC film crew depart and I head back home, desperate to see my children. It's up to the Save the Elephants field team now.

Cherie rests for most of the day, and the team take it in turns to keep watch. The calf is increasingly listless. He eats continuously, shoving leaves and soft grasses into his mouth to sate his gnawing hunger. At dusk, Cherie crosses the river and collapses into an erosion gully. Acting on intuition, David Daballen, head of field operations, steps out of his car and gently touches her eyes. She's dead. At last. The calf flings his little trunk across her body then steps his front legs up onto her stomach. He rocks to and fro. David decides to keep guard overnight so as to try to capture the calf the following morning. But as the night deepens, a pride of lions start to roar nearby, shattering the tranquillity. They circle closer. David knows the team must act now or it will be too late.

Three times they capture the calf and three times he breaks free, bigger than expected, strong as an ox and ferocious with grief. Vast black storm clouds block out the moon and suddenly the heavens open. Hit by the deluge, the team race between Salvadora trees in a last heroic effort to catch the calf, slipping in the mud, acutely aware of lions around the corner. Panting with effort, wet to the bone, and shivering with exhaustion, the team give up. The calf spins around and runs off into the night.

Early next morning David finds him again, close to his family and two large musth males. It's an awkward context for a rescue, complicated by the presence of the bulls. The David Sheldrick Wildlife Trust vet and aircraft are scrambled into action in Nairobi. The calf's family show a keen interest in him, touching his back and smelling him to catch up on the dramas of the night. David waits for a gap then gently eases his vehicle between them, isolating the calf from the other elephants. This time round, with enough people on hand, the capture is successful. Within a few hours, the calf is secure in the aeroplane heading towards Nairobi, sedated and on a drip. When he arrives at the orphanage he guzzles down four bottles of milk within minutes. This is a baby that wants to live.

A few hours later, I go to visit him at the orphanage with the children. He's surrounded by other little elephants, making friends but still a wild as can be, charging the keepers. "Sokotei", I think - the local name for Salvadora - in honour of his courageous escape from his would-be rescuers as a wild storm sent his mothers soul up into the Universe. Yes, that's the right name. I know he is missing her madly, but he's strong and has a fighting chance. If only he can make it through these first few weeks.

Back at home the kids dive under the duvet and pretend to be baby ice-bears, mewling for my attention. I think of the snug snow-caves mother polar bears dig out for their cubs in winter, and of the deep, instinctual, tenderness with which she cares for them. How lucky we are, I think, to have health, love, and family. Long may it last. Then I slide into the snow cave, and join the game."