



# OL JOGI

## WILDLIFE CONSERVANCY



CONSERVATION &  
COMMUNITY REPORT  
2019 - 2020



# EDITORIAL

*«We achieve more when we chase the dream  
instead of the competition»*

**Welcome** to our conservation and community report for 2019-2020!

Like for everyone around the world, the past months at Ol Jogi have been full of challenges. Fortunately however, there was nothing like pure wilderness and fresh air to keep a world pandemic at bay. We are blessed to live in this nature haven, and for our wildlife, the world kept unchanged as the sunrises and sunsets rolled out one after the other... The rains were particularly auspicious and generous, which meant Ol Jogi was teeming with dazzles of baby zebras, giraffes and antelopes. More than ever, we gave thanks for living in such pristine wilderness and our conservation work continued despite all. This was made possible thanks to the incredible support of our friends, partners and donors who stood by our side during these difficult months. We can never thank you enough.

We are delighted to share with you the latest news in our various fields of conservation work and look forward to a brighter and more promising year together!

## OL JOGI FACT FILE

<b>Location:</b>	225km north of Nairobi (4 hours), just north of Nanyuki in Laikipia.
<b>Size:</b>	Ol Jogi Ltd. 58,000 acres of which the main Conservancy comprises 46,000 acres and Pyramid Game Reserve 12,000 acres.
<b>Altitude:</b>	1,580-2,234 metres above sea level.
<b>Established:</b>	The Conservancy was established over 60 years ago and Pyramid Game Reserve was made a Rhino Sanctuary in 1980.
<b>Employees:</b>	280 on average throughout the year.
<b>Nursery and Primary Ol Jogi School:</b>	196 Children
<b>Number of rhinos:</b>	74 black rhinos and 36 white rhinos.
<b>Other wildlife:</b>	We host as many as 400 elephants, depending on season. We also host 22 species of ungulates, 5 species of large carnivores and diverse small carnivores, Three species of primates and 310 avian species.
<b>Pyramid Wildlife Census 2019 - 2020:</b>	1,659 up from 1,522 the previous year
<b>Main Conservancy Wildlife Census 2019 - 2020:</b>	4,497 up from 3,958 the previous year
<b>Livestock:</b>	2,350 Ol Jogi herd of cattle + 493 Kaparo's herd of cattle = 2,843

The cover picture of this edition is of a Lilac Breasted Roller bird that was photographed on Ol Jogi. The front cover photo is a curtesy of photographer Scott Sporleder. The back cover photo is a curtesy of our guide Johnnie Cross.





# DEAR DONORS

As Ol Jogi strives to develop a business model that can sustain our conservation initiatives, we are fortunate to benefit from the support of institutions and individuals who share our vision. They understand there is only so much we can do alone. As we strive to improve our conservation work, we are consistently undertaking projects ranging from the maintenance of existing infrastructure to investing in new developments and technological advancements. Our mandate is so diverse, ranging from protection and security to education. Indeed, contrary to popular belief, the conservation of nature and humanitarian welfare issues are not mutually exclusive. If anything, they are essential to the success of one other in order to conserve the habitat and wildlife, we must ensure that our employees stay committed, and that our neighbouring communities regard Ol Jogi as a valuable partner.

*We are incredibly grateful for the support that we have received at Ol Jogi, all the more so during this difficult year.*

For our security, new projects included the renovation and construction of more rangers' stations. These included houses, electrification, drinking water solutions, new ablution blocks and washing facilities. This project is still ongoing until we have ensured that all of our rangers, who put their lives at risk on a daily basis, are comfortable in their accommodation. The training of our National Police Reserve (NPR), which included two tactical refresher courses, a commander's cadre as well as first aid training, was fully supported as well as our intelligence training.

The procurement of various important security equipment was made possible, thanks to our donors. Several heavy-duty towropes and high-lift jacks for all of our security vehicle fleet could be purchased. Our security and rhino monitoring personnel also benefited from new uniforms, GPS units and digital cameras as well as the acquisition of a new Land cruiser with bush-modifications. Moreover, we were able to proceed with the certification of our canine unit by the National Police Service, which included both dogs and their handlers.

Various other projects directly impacting our wildlife were brought to fruition such as the replacement of hundreds of wooden posts in all of our rhino proof wildlife corridors with reinforced concrete posts. We also put in some long-term solutions in seasonal riverbeds where rhinos have escaped in the past.

A new motion detection, infrared CCTV project was developed at remote wildlife corridors. Artificial intelligence will now monitor the video footage for flagged subjects that might compromise our security. Other projects generously supported by donors included the renovation and construction of cheetah enclosures for the orphans and sick cheetahs that we currently have in our custody. Moreover, we were able to acquire materials for the renovation of an Elephant exclusion zone to protect the biodiversity of a portion of the conservancy, and new fence energizers to replace obsolete and dysfunctional models. Ol Jogi was also enabled to support a county anti-rabies campaign in a bid to eradicate rabies from this landscape.

Donors were key in increasing our veterinary capacity and supported us by purchasing important new veterinary equipment for our clinic. Moreover, our clinic has now transitioned to a clean sustainable power source for the first time since its inception. Thanks to solar power and batteries, it can now operate 24/7.

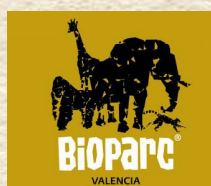


# DONORS (CONTINUED...)

Our generous donors also significantly improved the human welfare of those carrying out our conservation work on a daily basis. We were able to commission a new borehole and its related pipe infrastructure for water distribution. Putting down time to good use, our school, which was closed throughout this year due to the global pandemic, benefited from an incredible transformation. New roofings were installed; new furniture was made from recycled materials; the kitchen was uplifted with fresh air and light as well as with a refreshed storage capacity; a kindergarten section and new library were created; and rainwater capture was finally made possible; to name but a few of the key projects undertaken.

As you can see, the support that we received is both diverse and considerable. Everyone at Ol Jogi, wildlife and humans alike, have benefitted from this kindness and generosity of our friends and supporters. We are so very grateful for it all and it has allowed us to keep our momentum despite the turmoil of this past year. Whilst several friends and guests of Ol Jogi were very generous in their additional support, only the institutions that have a formal donation platform are reflected in the illustrations below. We are grateful for all of the support that we received, no matter how small, as it allows us to strive towards a gold standard for conservation.

Asante sana to you all!







# STAR SAFARI

Astronomy is an extension of our natural world. We cannot have elephants or lions without a planet, and we cannot have a planet without a star. For the past two years, Ol Jogi has partnered with our local astronomers from the Travelling Telescope, Suzie and Chu, to offer our guests the breath-taking experience of a star safari: a guided tour of the African night sky, sharing the wonders of both the latest scientific discoveries of our exploration of the universe, and the rich history of traditional sky knowledge in northern Kenya.

Ol Jogi is an ideal place from which to discover the stars. Africa has some of the darkest skies on planet Earth, and Ol Jogi is situated a long way from any town or city. This has the benefit of allowing us to see how bright a star filled sky can be - and indeed how they used to be everywhere before humans began lighting up the night. Most cities are blighted by the orange glow of artificial light, but here you will witness the real "wild sky". Moreover, as Ol Jogi is on the equator, the heavens of both the Northern and the Southern skies and their different constellations are easily comprehended. The equator is also the best location to view the planets and the Moon as it is where they pass overhead, meaning telescope views are less affected by our atmosphere wobbling the light, resulting in the sharpest views possible.

In addition to offering mesmerizing star safaris to our guests, we have started working together with Suzie and Chu to bring this experience to our Kenyan school children. The team came to visit our school and set up an inflatable planetarium. For three days, projections about the earth, the stars and the universe were shown and our children were lining up eagerly to attend the various sessions. Suzie, Kenya's first woman astronomer, inspired our children as she explained the wonders of the universe to them. It was such a success that we decided to include the neighbouring school children and our staff in these sessions.

The dream is now to bring this experience to all of the Kenyan school children who come to visit our Wildlife Education Center. In addition to giving them the current exposure to wildlife and biodiversity, we also wish to have a facility specifically dedicated to the stars and the universe. There is no doubt that by introducing the wonders of the universe to future generations, the magic and miracle of our wild treasures on Planet Earth will be all the more appreciated and valued. Watch this space as a future generation of astronomers emerge from our wild savannah!



# RESEARCH IN CONSERVATION

The overarching goal of research at Ol Jogi is to improve our understanding of wildlife and human populations in this landscape so that we can focus our conservation efforts based on need. Research is essential in helping us make more informed conservation management decisions.

The spectrum of our current research is very diverse. Naturally, we focus on the health of endangered species as it is of critical importance and might mean the difference between recovering populations or extinction. However, we also look at humans: for example, how they perceive carnivores; and how cattle might be adversely affecting wildlife despite the societal demand for cohabitation. We participate in regional game counts to understand wildlife population sizes and distributions.

Research also allows for science to meet conservation: new applied technologies allow us to understand details that were not previously possible such as DNA meta-barcoding; endocrinology for non-invasive analysis of breeding performance, and molecular and pathological characterization of disease agents.

One of our main goals at Ol Jogi is to increase our black rhino population. Currently, we are not sure if all of our rhinos are undergoing normal reproductive cycles and are therefore able to breed. Non-invasive hormone research, using dung samples from female rhinos, helps us monitor their fertility and make informed recommendations about breeding, such as how best to translocate new males.

Moreover, through our research, we try to establish whether burgeoning populations of elephants and gi-

raffe are extirpating the preferred diet of other browsing species like the black rhino. If so, how do we manage the situation to mitigate the potential negative impact on rhinos, whilst still allowing other species to live and breed here?

Some of our research focuses on specific wildlife health issues. Over the years, we have noticed that blindness has affected several young black rhinos in the region. Investigation by veterinary ophthalmologists found that cataracts often cause this. We wonder how many other rhinos are affected by eye disease but are not diagnosed, particularly in the less intensively monitored populations. We suspect that the issue might be genetic, based on the genetic bottleneck and subsequent inbreeding that ensued given the intense poaching of the 1970s and 1980s. We now have the opportunity to ex-

amine the eyes of a representative sample of Kenya's black rhinos, and develop a simple genetic test for the blindness trait that can be applied to all rhinos. If we discover that some rhinos are carrying the genes for blindness, we might be better informed before animals move between conservancies and potentially 'breed out' this negative trait.



The sum of it is that we continue to learn. Management decisions are made with the goal of allowing animals to thrive but equally, they can have significant negative repercussions if they are not backed by evidence. We try to focus on the research that can be applied practically and which can help us make current decisions. We are thankful to our partners, without whom this work would not take place, and we look forward to identifying more information gaps that we can strive to fill together.





Research Institution	Study title and description
University of Manchester, UK and Smithsonian Institution, USA	Black rhino endocrine study: Non-invasive reproductive hormone analysis using dung collected from known individuals
Brown University, USA	DNA metabarcoding: analysis of rhino dung: do rhino diets differ inside and outside of an elephant exclusion zone?
Princeton University, USA and Mpala Research Centre, Kenya	Rhino flies and disease transmission: Comparison of parasitic fly species from boma rhinos vs. free ranging rhinos
Smithsonian Institution, USA and Mpala Research Centre, Kenya	Vector-borne skin disease ecology in rhinos: Investigation of a suspected insect-borne infectious skin disease affecting rhinos in Kenya
Lion Landscapes and Kenya Wildlife Service	National Lion Census: Understanding distribution, age, and sex dynamics of the Kenya lion metapopulation
Princeton University, USA and Kenya Wildlife Service	Great Grevy's Rally: Annual Grevy's zebra census, aiming to understand the population distribution and dynamics of the Kenyan metapopulation
University of Manchester, UK and Smithsonian Institution, USA	Investigating eye health and a potential genetic cause of blindness in black rhino: Veterinary ophthalmology and genetics study of a suspected inherited eye disease in black rhino
Smithsonian Institution, USA	Rhino fecal microbiome: Comparing the gut microbial flora of Kenyan rhinos to South African rhinos
University of Manchester, UK	Endocrinology of Grevy's zebra: Non-invasive hormone analysis using dung samples
University of Edinburgh	Health management of working dogs in Kenya: Understanding veterinary and husbandry protocols used to care for working dogs in anti-poaching canine units
Zoological Society of London and Royal Veterinary College, UK	Risk assessment at the livestock-wildlife disease interface: Investigating the potential health risks to rhino from cattle grazing in wildlife conservancies
Helsinki Institute of Sustainability Science, Finland	Human/carnivore relationships: Investigating the perceptions of local people
Max Planck Animal Behavior Institute and University of Konstanz, Germany	Avian ecology: Vulturine guineafowl - understanding social behavior and dispersal of young birds
Wageningen University, Netherlands	Environmental migration in the digital age: How has the digital age affected nomadic pastoralists' grazing decisions and regional security?
Mpala Research Centre, Kenya	Avian ecology: Weaver bird community fluctuations during wet and dry seasons
Twiga Walinzi (Giraffe Guards), San Diego Zoo Global, USA	Population dynamics of reticulated giraffe: Understanding prevalence and distribution of the endangered reticulated giraffe in Kenya





# WILDLIFE FOCUS

## STRIPED HYENA

According to the IUCN Red List for endangered species, striped hyenas (*Hyaena hyaena*) are “near threatened with an estimated global population of less than 10,000 mature individuals. Declining prey-base, human-wildlife conflict, habitat loss, and incidental persecution contribute towards a projected continued population decline of 10% over the next three generations”. We have a thriving striped hyena population at Ol Jogi and we are fortunate to see them regularly, but the threats that exist outside of protected areas such as ours are certainly cause for concern.

The striped hyena has a very large, albeit now patchy distribution, extending from north Africa including the Sahel, including much of east and northeast Africa, extending south to central Tanzania. They also occur through the Middle East and Arabian Peninsula, Central Asia, and the Indian subcontinent. They may have recently expanded into Nepal.

Given that they are primarily nocturnal, solitary and often occur in rugged landscapes, estimating populations of striped hyenas is difficult at best. Those who are

not readily familiar with the two species quite easily mistake them for aardwolves, and sometimes they are mistaken for spotted hyenas. The three species differ in diet and physical appearance as well as their social behavior. The photos included illustrate the physical differences between the three species.



Spotted Hyena



***Maintenance of a healthy biodiverse ecosystem with abundant natural prey is highly conducive to the survival of striped hyenas.***

In 2006, a study in the Laikipia district of Kenya (where Ol Jogi is situated) estimated a minimum regional density of 0.03 adults per km<sup>2</sup>. Whilst we don't have an accurate estimate for the population at Ol Jogi, this study suggests that we would have in the range of 8 individuals only. We can say with absolute confidence that our population is considerably higher than this and if we were to offer a rough estimate, we would suggest that we have in the range of 30-40 hyenas based on observations in the areas in which we have seen them over the years.

Unfortunately, striped hyenas are very susceptible to accidental or targeted poisoning and this has been a major driver for their population decline. Human-carnivore conflict continues to pose a significant threat to many predator species in Africa: it is a thorny issue that inspires social and political tension in countries like Kenya where wildlife-induced costs are yet to be efficiently compensated. Frustrated communities often take the matter into their own hands and this might include indiscriminate poisoning of carcasses to alleviate the threat. For example: a lion kills a cow in the local community. The community is more often than not frustrated by the lack or slow response of the government with regard to compensation. The community poisons the carcass in the hope that the lions will eat it and therefore cease to be a threat. In the interim, the vultures, jackals, hyenas, leopards, and a multitude of other scavenging carnivore species also die as a result. Striped hyenas are incidental victims of this persecution as they will readily and opportunistically scavenge from a carcass.

Although the primary threat to striped hyenas in Kenya is almost certainly indiscriminate poisoning, there are

places in the world where skins are illegally traded and in some countries they are hunted for body parts as traditional medicine.

Whilst we don't focus our conservation specifically towards striped hyenas, the maintenance of a healthy biodiverse ecosystem with abundant natural prey is highly conducive to their survival. Our temperate, bordering on semi-arid climate and thorny Acacia woodland, is very suitable for them. We have also often seen them at altitudes of ~2,000 meters (+/-7,000 feet) in the hills on the eastern side of Ol Jogi. The abundance of striped hyenas in Ol Jogi is another stark example of how the focus on keystone, umbrella species like the rhino, provides a secure environment where other species can thrive.



Aardwolf





# RHINO NEWS

## RHINO CONSERVATION IS ALWAYS FULL OF SURPRISES AND NEVER LEAVES YOU WITH A DULL MOMENT

Since our last report, our conservation manager attended the IUCN SSC African Rhino Specialist Group (AfRSG) meeting in Namibia. The status of African rhino conservation, and of particular importance to Kenya, the Tsavo East National Park disaster of 2018 were discussed. That year, all of the 11 rhinos died in a Kenya Wildlife Service translocation. This demonstrated a 100% mortalities and was a rhino conservation tragedy.

The AfRSG was hence invited to scrutinize the inquest report and thereafter submitted recommendations to the Rhino Steering Committee (RSC) of Kenya on which our conservation manager also sits. The most tangible output perhaps, was the development of new immobilization and translocation protocols for Kenya. Fortunately, these have now been adopted and implemented at a national level, in the hope that Kenya won't face such a tragic recurrence ever again.

## VETERINARY MEDICINE WORKSHOP

Together with the Smithsonian, Mpala Ranch and the Kenya Wildlife Service, we facilitated a Rhino Veterinary Medicine Workshop at Mpala and Ol Jogi. Professionals were invited from all over the world to lecture, share ideas and practically demonstrate best practice in modern rhino medicine. The workshop was a tremendous success and added to a layer of veterinary capacity building.

More recently, our conservation manager in his capacity as Chair of the Association of Private and Community Land Rhino Sanctuaries (APLRS), organized







a Laikipia Rhino Range Expansion Theory of Change Workshop with the help of Save the Rhino International and facilitated by the Bently Foundation. The workshop was endorsed by the RSC and was attended by Kenya Wildlife Service. After more than a decade of rhino poaching oppression throughout Africa, Kenya's small victories have amounted to the need to secure more space for rhinos with the capacity to protect them. Many rhino conservancies in Kenya have reached or exceeded ecological or social carrying capacity and it is our collective responsibility to secure more space to ensure they breed optimally. The workshop was attended by local stakeholders and experts with considerable rhino range expansion experience. Several tangible outputs were commissioned from the workshop and we trust they will make a positive impact to Kenya's rhino conservation.

## RHINO POPULATION

Moreover, 2019 and 2020 have been tremendous years in terms of our rhino population. We succeeded in passing the 100 number milestone. Currently, we have 110 rhinos; 74 Black and 36 White Rhinos. In 2020 alone, we had 13 births (12 Black and 1 White) and 2 natural deaths (1 Black and 1 White).

The incredible birthing rate of our Black Rhinos in particular made up for the two tragic losses of calves we experienced in 2019, both due to natural causes. The first was "Hectala's" first calf, which was killed and eaten by lions. This is quite common particularly when young rhinos have their first calf and they are relatively inexperienced as mothers. The second was absolutely heartbreaking for us as our "MeiMei" died after being sick for the best part of 1.5 years with a condition that we were unable to diagnose.

## MEIMEI

Rescued at four days of age due to blindness, MeiMei initially thrived in the rhino bomas, but since early 2018, she had been undergoing treatment for chronic health problems. In order to understand and treat her illness we consulted with local vets, the Kenya Wildlife Service, and an international team of rhino veterinary experts. Sadly, despite the best efforts of vets and round-the-clock care from her dedicated keepers, her condition deteriorated and she passed away peacefully on August 6, 2019.

Reaching a diagnosis was not straightforward because, despite increasing numbers of calves under human care in sub-Saharan Africa due to the poaching crisis, very little is known about diseases affecting rhino orphans. After her death, we worked together with some of the world's leading zoo and wildlife pathologists to study her tissues. The hope was to try to find the underlying cause of her chronic ill health, so as to be able to help other young rhinos if they have similar issues in future.

The test results supported a final diagnosis of malabsorption syndrome. Malabsorption syndrome is a chronic intestinal tract disorder that is occasionally seen in domestic horses and has some similarities to Crohn's disease in humans. We believe that an initial





# RHINO NEWS (CONTINUED...)

bout of gastrointestinal illness in early 2018 permanently and irreversibly damaged MeiMei's gut lining, resulting in an inability to properly absorb nutrients from her diet. This led to chronic metabolic problems. Her suppressed immunity meant that she was unable to ever fully recover despite appropriate treatments. While this syndrome has never been formally described in a rhino calf before, following discussions with other rhino vets, we believe that there may have been other cases that could not be diagnosed without the extensive histopathological testing we were able to perform for MeiMei.

An ambassador for black rhinos in life, MeiMei continues to teach us about her species after her death.

Looking to the future, her case will be used to educate wildlife professionals caring for young rhinos to help recognise and manage this syndrome in other rhino orphans.

Despite these losses, we must persevere and continue to strategically conserve the remaining populations of rhinos on Ol Jogi and more importantly continue to grow them. Whilst Kenya has been quite successful at slowing the threat from poachers through actionable intelligence, the threat remains. As we crossed the 100 rhino threshold in 2020, we endeavor to continue our efforts in ensuring the future sustainability of this species.





Why do we train? Is it so that we can become more efficient or productive? Both of the aforementioned are true but most of our training with respect to our conservation at Ol Jogi is so that our rangers and wildlife can stay alive! Perhaps consider this for a moment...



There is a frightening statistic concerning the number of ranger fatalities in the protection of Africa's wildlife. Rhino protection, in particular, is dangerous work. The very animals that we strive to protect are dangerous, and the poaching syndicates perhaps more so. Unfortunately, the current conservation context does not provide the resources that wildlife requires to live and need to "get on with it". Managing wildlife for conservation involves a complex mosaic of evolving considerations.

Our conservation of rhinos at Ol Jogi can be broadly split into two categories: biological management and security management. We have intensive physical monitoring of our rhino population, involving daily visual identification of every individual rhino by rangers traveling on foot, that provides the basis for informed management decisions. Our rangers must be trained to recognize key signs of incursion by would-be criminals, such as tracks and signs of illegal campsites, and behavioural indicators as demonstrated by the rhinos themselves, such as social interactions between individuals or prolonged periods of inactivity. Interpreta-

tion of these signs allows us to be strategic and efficient with our resources in order to ensure that the rhinos are adequately protected. If we give the rhinos both the resources they require to survive and the security to do so safely, they get on with it quite well!

The training we facilitated was comprehensive and diverse. It included both the biological and security elements of our work.

## BIOLOGICAL TRAINING

Our Central Operations Room (CoR) operatives were sent for a five-day course to learn about the "Kifaru" National Rhino database. Adding data to "Kifaru" is a legal requirement for rhino sanctuaries in Kenya. The database contains records of our conservation effort including individual information about each rhino, ranger patrol patterns, births, deaths, interventions, and translocations. This is then shared with Kenya's National Rhino Office who use the information to guide meta-population management decisions.

Our rhino monitoring rangers were sent for general security training, including training on navigation and the use of GPS data, radio etiquette and efficient communications, discipline, parade, and general fitness. Selected individuals were also sent to train as accredited rhino monitors; this comprises an understanding of body condition scores for different ages and sexes of rhino, age scoring, unique identification features, and identification of preferred vegetation species in the rhino's diet.

***Training  
with respect to our conservation at  
Ol Jogi is vital to keep our rangers  
and wildlife alive!***



# TRAINING (CONTINUED...)

Selected rangers were also trained on the use of smart-phone cyber-tracker technology for the national lion census. Similarly, others were trained on the use of GPS-enabled digital cameras for the Great Grevy's Zebra Census. Ol Jogi has the single largest population of the critically endangered Grevy's Zebra anywhere on the planet, with an estimated population of 500 individuals that represent approximately 18% of the global population. Our monitoring rangers were also trained in the collection of rhino dung samples for an on-going rhino endocrinology research project. The aim of this project is to extract the hormone progesterone from the dung of 17 known breeding female rhinos twice per week for one year. Hormone levels in the dung are used to determine their "reproductive status" (e.g. pregnant, ovulatory, post-ovulatory, non-cycling). This helps us to build a more complete picture of our rhinos' lives than we are able to gain from ranger observations alone: for example, if nutritional stress is causing sub-optimal fertility, or if neonatal calves are lost to predation before they are seen by a rhino monitor.

Our conservation manager co-facilitated a "Rhino Veterinary Medicine Workshop". We invited veterinarians from the US and South Africa together with those who

work for the Kenya Wildlife Service. The idea was to have veterinary experts lecture about best practice and modern techniques that are being used around the world in a multitude of key focal areas. Physical demonstrations were organized in the field and the exercise was successful both in terms of learning and also as a way of building relationships. We hope that some learned about the constraints under which we work and others learned about new techniques that have been developed. It acted as a mutual capacity building opportunity.

## SECURITY TRAINING

Our entire rhino monitoring team, together with the commanders of our Rhino Protection Unit (RPU) were re-trained on crime scene response. As we strive to identify and fill all of the gaps in our rhino conservation asset-base, it is of paramount importance that our staff have the ability to identify, protect, collect and utilize forensic evidence. Successful prosecutions based on such evidence are a critical factor in the prevention of rhino poaching.

Our head of department for our conservation-working dogs attended a workshop facilitated by "Save the Rhi-





no” and “Frankfurt Zoological Society”. The workshop was organized to train on best practice, sharing ideas and techniques, and to allow handlers to learn from others’ experience in the management of working dogs for conservation.



Six of our RPU members attended a five-day intensive First Aid Training. The course focused on the types of injuries expected in this environment, including snake bite, trauma, and resuscitation techniques that can be used to keep people alive in the field until they can be attended by a doctor.

Our intelligence source handlers continue to undergo critical training that enables them to stay safe whilst gathering credible information from community sources. With this intelligence, our security team can stop poaching before it happens. It is a pro-active method that allows us to mitigate both human and wildlife fatalities.

We also held Commanders Cadres for all RPU commanders that included:

- functions of command, timelines, briefings, administration of patrols in and out of the field,
- police NPR legal updates, map reading and the use of GPS,
- attack tactics process, medical, and tactical planning,

- joint operations center brief, K9 tactics, thermal imagery use, report writing and helicopter support.

In conclusion, whilst it is apparent that we have invested considerably to enhance our human capacity in 2019, it should be recognized that training isn’t to be undertaken as a “one off”, as new techniques are developed, technologies become available, and poachers evolve. We need to adapt and are consistently learning as science meets conservation. Whilst some learning helps us to better manage our rhinos, other training are absolutely vital for “life or death” situations. We aim to give Ol Jogi’s men and women every opportunity to stay safe – and the more one trains, the better one becomes.

Much of our training in 2019 was made possible through generous donations. The investment into people is an integral part of conservation and the two are not mutually exclusive. We are grateful to those who made this possible and though they don’t know it, so are our rhinos.







# VETERINARY CLINIC

The Ol Jogi veterinary clinic was built in 1995 and was ahead of its time. Its geographic location was ideal and it was fully stocked with state-of-the-art equipment. For many years, Ol Jogi employed veterinarians to manage the veterinary clinic in conjunction with the Kenya Wildlife Service. More recently however, a series of unfortunate circumstances left the clinic without supervision for a number of years and outsourcing veterinary capacity became the norm.

Veterinary medicine is evolving at an exponential rate. New research, technology, equipment and best practice are becoming available and the Ol Jogi veterinary clinic was suddenly outdated. Whilst the structure, design and the underlying capital remained with exceptional potential, the drugs and equipment became obsolete and the facility all but stopped acting as a functional clinic. It required an injection of energy, capital and a veterinarian to guide this process.

In 2018, Ol Jogi partnered with the Smithsonian as a part of their Global Health Program. The Smithsonian facilitated two veterinary fellows on a contractual basis to undertake various veterinary research projects.

Ol Jogi provided a part of the platform from which to launch this initiative. The program was to be a collaborative partnership between the Smithsonian, the Kenya Wildlife Service, Mpala Research Center and Ol Jogi. We suddenly had a veterinarian to spearhead various pertinent veterinary and conservation research initiatives but also a qualified person to guide the process of renovating our clinic.

With the professional shortfall temporarily resolved, we then required the resources to fully exploit the opportunity. Several generous donors came to our aid and we were able to source a significant amount of important equipment for our clinic. To name but a few, we purchased a modern and state-of-the-art portable digital x-ray as well as Wi-Fi & Bluetooth enabled microscope with camera, different weighing scales, and installed solar power and batteries to enable self-sufficient 24/7 power.

Suddenly, the Ol Jogi veterinary clinic had come to life. The Kenya Wildlife Service veterinarians brought wildlife patients to our clinic, samples were collected, scrutinized, diagnosed and stored as a part of a bio-bank.



Rhino dung endocrine samples were collected and delivered every week and latterly hormones were extracted for analysis. And we suddenly had a consistent flow of wildlife orphans being treated and cared for in our wildlife rescue center. Our conservation working dogs were subjected to routine health checks and all the while, pertinent conservation research concepts were developed.

In October 2019, as a part of a collaborative “Advanced Rhino Veterinary Medicine Workshop” our veterinary clinic became the platform for a large animal pathology demonstration that involved more than 20 vets and students. The veterinary delegates visited our rhino bomas (rhino hospital) where we demonstrated a functional model for rhino treatment rehabilitation that can be used as a prototype for further initiatives elsewhere in Kenya.

One of the most striking cases we had was the rescue, treatment, and ongoing care of a mother cheetah with a severely fractured leg and her three dependent, emaciated and sick cubs. The treatment was revolutionary in Kenya as it brought together professionals from various medical fields for an orthopedic surgical procedure to save the cheetah. Ol Jogi’s veterinary clinic was transformed into a bustling emergency room



as the veterinary and medical teams worked together to repair her shattered leg and to save the dying cubs. A new anesthetic regime was used including a nerve block and a propofol infusion, previously undocumented in the treatment of a wild cheetah in situ. A titanium plate was used to repair the ulna and allow the bones to realign and heal.

Today, Ol Jogi continues to strive to achieve a “gold-standard” clinic comparable to any modern veterinary clinic in the developed world. Our focus is driven by the mind-set that, “just because we are in Africa and in a logistically remote location, it doesn’t mean our wildlife doesn’t deserve the very best veterinary care available”. We recognize that we have a long way to go but we should celebrate the fact that our clinic is leaps and bounds ahead of where it was a year ago. It is once again a facility that can provide a service for the wildlife of Kenya. We would like to thank all of our donors, partners, experts and veterinaries, national as well as international, without whom this would not have been possible. Our special acknowledgements go to the Kenya Wildlife Service for allowing exemplary collaboration for the welfare of our wildlife.




Radiographs before and after





# HONEYBEES

The most common subspecies of honeybees in Africa is the *Apis Mellifera Scatullata*, which is found in the plains and lowlands of all East, Central and South Africa. Kenya, due to its great variety in ecosystems and climate is home to several subspecies of honeybees. Each of them has developed behaviour enabling survival in its specific environment.



The honeybee found in the savannah is *Apis Mellifera Scatullata*, renowned for being aggressive and for its great tendency to migrate. It has a high reproduction rate around the rainy season when massive flowering occurs. Its defensive attitude is most certainly due to the number of many honey predators found in the savannah; only the curliest bees will be fit for survival! The *Apis Mellifera Monticola* is known as the mountain bee. It is bigger and more peaceful than its cousin, the *Apis Mellifera Scatullata*, found on Mt Kenya, Mt. Meru and Mt Elgon. In Ol Jogi, where the altitude is around 1700m, A.M. *Scatullata* is the most common subspecies of honeybees. However, due to the proximity of Mt Kenya, interbreeding between them and *A. M. Monticola* may occur.

On Ol Jogi, the most commonly used hive is the log hive. It is a basic bush beekeeping method which consists of using an empty log placed horizontally. This log hive is the simplest hive structure that exists, but unfortunately has serious shortfalls for the wellbeing of the bees. Harvesting honey from this type of hive is the least bee friendly as there is no built in structure to protect the queen. In addition, it also represents a fire hazard, as the beehive has to be entirely smoked out for any honey collection to take place. The Langstrogh hive

is the one found most commonly throughout the world and makes honey harvesting much more sustainable. This Langstrogh hive, developed in the 19th century by the American apiarist Lorenzo Langstrogh, presents the advantage of a bigger breeding chamber and hence gives more space for the queen to lay her eggs and develop her colony. Moreover, the chamber containing the honey is within a separated structure, so that harvesting can be done whilst minimally disturbing the colony.

## Did you know . .

- Honeybees are but one species among thousands of different bees within the superfamily Apoidea.
- There are an estimated 20,000 species of bees existing throughout the world, from which only eight species of honeybee are recognized, with a total of 43 subspecies.
- Honeybees are unique in their societal life cycle and storage of large food reserves as most bees are solitary, nest individually, and do not store surplus food.
- The most commonly domesticated honeybee specie in the world is the *Apis Mellifera*. It seems to have originated in eastern tropical Africa and spread from there to Europe and eastwards into Asia. Behaviour, colour, and anatomy can be quite different from one subspecies to another.

Bees are social creatures; surviving only within a colony. Bee colonies do two things: they produce honey and breed. Breeding is important because the more bees there are, the healthier and stronger a colony becomes. Honey is important because it feeds the colony and





keeps the bees alive. When a colony breeds beyond the space available in the hive, they raise another queen and they split. This split is called a swarm. A swarm of bees could be described as a colony in search of a home.

There has been a long tradition of beekeeping among the staff members at Ol Jogi, who would do this as a side activity in addition to their everyday responsibility. You will find well-disguised hives hanging in trees and small bushes around staff housing. Bees can even be found living with the staff and their families around the camp, with colonies settled in the ceiling or in a cosy corner of the chimney. The period of harvesting as well as the amount collected by each beekeeper varies across Ol Jogi. Each person has their own way of dealing with the harvesting and processing of the honeycomb. But there is something that all the brave beekeepers of Ol Jogi have in common: none of them seem to use any protection gear and everybody smokes the hives in order to calm the bees with elephant poo! Moreover, they all struggle with the other honey lovers of the bush... as termites, baboons and honey badgers are a constant hazard and a challenge to keep away from the hives.

In Ol Jogi, bees are usually happy around Mainhouse as the gardens are watered throughout the dry season, providing a continuous supply of nectar and flowers to keep them going all year round. 2020 had excellent rains so our bees produced plenty of honey and were able to breed in good numbers. Many swarms were created all over Laikipia, including in Ol Jogi. Across the conservancy, the number of swarms looking for new homes were so numerous that it nearly became a hazard for the wellbeing of our staff.

In May 2020, a group of volunteer beekeepers from the staff organized themselves to form a swarm catching and bee relocating team. They all felt responsible not

to let the bees down, as they are such an important part of the ecosystem. The management of Ol Jogi supported this initiative providing empty hives. They were also provided with a smoker and very basic protection gear. The workshop of Ol Jogi collaborated by making and designing the stands for the hives, which have a water trap for ants and two straps of iron locked at the top to make it impossible for baboons or honey badgers to open the hives.

Given these successful first steps, we decided to go a step further and started professionalising our beekeeping. An official beekeeping department was created in July, and honey-processing material was purchased. Our aim is to transition all our bee hives to Langstrogh hives as those are the most sustainable and bee friendly. We have given ourselves a year to phase out all of the log hives as they also represent a fire hazard during the honey harvesting. We hope to get official certification in the year to come to sell our honey in our boutique, the revenue of which will be reinvested in our beekeeping department.



Our Volunteer and Founding Beekeeping Team





# EDUCATION

## TRANSFORMING OUR SCHOOL

Even though 2020 will have been a lost school year for Ol Jogi's children, as well as for all the children in Kenya, it will also be remembered as a year during which we made a considerable qualitative jump in terms of improving our infrastructure as well as our teaching methodology. It has been a most fruitful year in terms of conducting important structural renovations that would not have been possible otherwise, as well as transitioning our teaching approach towards the Montessori methodology.

Starting March 2020, we had to close down our school like every other school in the country, private or public alike. Initially, we had no idea how long the lockdown would be but seized the opportunity to push forward to complete important structural renovations that were urgently needed.

Indeed, the Ol Jogi School has existed since the creation of the conservancy over 40 years ago. The current buildings were constructed in the early 80's as solid timber structures. In recent years however, bats had chosen to nestle under the roofs as their new abode. Their feces and urine proved to be a serious health hazard. A complete renovation of the school roofs was the only durable solution as the bats resisted all the other

attempts made to deter them from returning while the same applied for the dispensary.

The scope of the project was initially only to change the external roofing structure, however, a couple of weeks into the works, we realised that the scope and scale of the project had to be considerably increased. The bats had been much more prevalent than was thought, and all the fake ceilings in the classrooms had to be removed. This impacted the timeline as well as the initially planned budget. By March 2020, all of the external roofing works were completed. The second phase of the works, the inner transformation works (cementing dividing walls between each class, removing all of the fake roofs, cleaning the timber impregnated with the bat waste, creating new bat proof ventilation grids) were going to be quite challenging to organise as school was ongoing and we needed the classrooms.

Global pandemic then hit and schools were shut down. As Ol Jogi went into lockdown itself, the entire contracting team stayed on site to push through the works in order to make the most of the empty classes. The school became an intense building site, with works taking place simultaneously in every classroom. All the timber that was being disposed of was recycled and





*Even though 2020 will have been a lost school year, it was the most fruitful year in terms of conducting important structural renovations that would not have been possible otherwise.*

turned into furniture for the kindergarten classes. We recycled the old roofing sheets to create a new home for the bats so as to ensure their migration. By the end of May, all of the roofs of the two main school blocks, as well as the Ol Jogi Dispensary, had been entirely renovated and cleaned. Both institutions now have brand new gutters that has created the opportunity to channel rain water into storage tanks.

Today, the Ol Jogi School is transformed, in addition to being beautiful, it feels brand new. The bat problem is thoroughly solved as they have left for their new home. The removal of the fake ceilings has revealed the unique workmanship of the original timber structure, the classrooms are airy, well ventilated and very spacious. Children now are keener than ever to get to their classes, and teachers feel enchanted with this new working environment.

In terms of community building, this project was really built on a collective engagement bringing the Ol Jogi Management, the parents, students and teachers together. In order to reduce costs, everyone volunteered where they could to make ends meet. We had mothers and children helping out with the cleaning, and fathers helping out on the roofs and moving materials around,

during weekends and holidays. The Headmistress and the teachers were constantly on the grounds monitoring the works, as well as our workshop team who ultimately were responsible for making sure the desired quality of work was delivered as promised.

All of these important works were made possible thanks to our generous and most supportive guests. We can't thank you enough for having empowered us to turn a disastrous situation into an opportunity to do





# EDUCATION (CONTINUED...)

all of these much needed renovation works. In addition to the bigger structural changes, our guests supported us also in conducting additional works. Our biggest classroom was transformed into a library. A computer lab was created with Wi-Fi capacity, our kitchen and food storage room received an entire facelift, new ventilation towers were added, making it a hospitable working area even in the hottest hours of the day. Our dining hall was turned into two big classrooms that can be adjoined into a big assembly hall as needed. In addition, we were able to buy five water storage tanks to store rainwater from our new roofs. Finally, all the old timber collected from the renovated roof structure were recycled to make new furniture for our kindergarten. Our donor funding even enabled us to renovate a small storage building that we turned into an additional kindergarten class. A playground made from our own recycled tires was created for the smaller children and we were even able to install toddler toilet facilities for them.

Moreover, from a content point of view, our school was able to take its first steps in adopting a Montessori teaching methodology thanks to our nascent

partnership with the Montessori Learning Center (MOC) in Nairobi. Our teachers were able to follow a one-month online training session in the summer of 2020, followed by in situ training of a week in October by the headmistress herself of the MLC. Our friends at the MLC have been an incredibly generous source of support, both in material for our children but also in guiding us and supporting us in this transition of our teaching methodology. Both teachers and children are delighted by this new approach as it really seeks to develop a child's autonomy and capacity for self-development. We hope that 2021 will be the year of consolidating this methodology throughout all of our classes.

All in all, the down time of 2020 was put to the best possible use. As our school officially opened on the 4th of January 2021, all of our children rushed enthusiastically to eagerly start learning in their beautiful new school. A big heartfelt ASANTE SANA to all of our generous donors without whom none of this would have been possible. Thank you for making such an impact on these children's lives and helping us make 2020 a productive year.







# IN REMEMBRANCE



Samuel Kipkemai was born in 1968 in Nandi county, the West of Kenya. He arrived in Ol Jogi when he was 18 years old while his father was already working in Ol Jogi as a lorry driver. Samuel, who would usually be called Suge, started as a casual worker and was part of the team who dug the big dam. Upon completion of the dam project, he joined the staff team of Mainhouse. Very hardworking, Suge was progressively promoted until he became in charge of the entire infrastructure for the pools and jacuzzies of Mainhouse. But Suge was not only that; when all the staff were on their lunch break, you could be sure that Suge would be somewhere, fixing a broken tile or stepping in for one of the other staff to ensure presence and a job well done. For those who were up in the first hours of sunlight, or the last ones to turn the lights off at night, we knew Suge would always be found doing his rounds. He would always be checking his and others' workstations.

Suge was an exceptional professional who took pride in carrying out the smallest of tasks. An example for us all, it was a real joy to work with him.

Incredibly honest and full of integrity, Suge was also a great community mobiliser. As the football coach of Ol Jogi, he loved organising football matches for the children, the staff or the rangers. Throughout the years, he participated in many of Ol Jogi's tournaments of darts, football and volleyball and was keen to see Ol Jogi continue its involvement in the local sports world. One of his last wishes was to see the Ol Jogi sports team have an official sports uniform.

Many months after his unexpected passing away, not a day goes by without us remembering him fondly.

More tragically still for his eight

children, his wife Sara Chebet, who had also worked for many years in our Mainhouse kitchen, passed away a couple of months after him. The entire Ol Jogi community

remembers them and trusts Suge's legacy will continue through their children.







**Ol Jogi Limited**

P.O. Box 259 – 10400, Nanyuki, Kenya  
Tel: 062 2038000 | Mobile: 0722 512 823  
[www.oljogi.org](http://www.oljogi.org) | [www.oljogihome.com](http://www.oljogihome.com)  
[info@oljogi.org](mailto:info@oljogi.org)

Published annually by Ol Jogi for our friends in the community, the local administration and our conservation partners.