



SATIB CONSERVATION TRUST
WILDLIFE & COMMUNITIES

"GREEN WITH ENVY"

Electronic Newsletter of the SATIB Conservation Trust

Editor: bcourtenay@satibtrust.com

www.satibtrust.com

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CELEBRATING WORLD LION DAY



Newsletter sponsored in the interests of conservation in Africa as a non-opinionated platform for communication between wildlife professionals offering to share knowledge, ideas, techniques and the public or persons interested in wildlife and conservation.

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Hi All

This is a special edition of Green With Envy!



On August 10 we celebrate one of the most iconic animals, PANTHERA LEO – The African Lion! And Africa is the home of these magnificent animals, but there are some serious threats to Lions in Africa such as loss of habitat, poaching, disease and the ever present trophy hunting! So we at SATIB Conservation Trust (SCT) have decided to forge an alliance with specialist Wildcat NGO, namely Panthera. The conservation of lions is very important in Southern Africa, in many protected areas and national parks, so working with Panthera to conserve these animals is our mission for 2016/17!

I urge our readers to look at the special “Cecil the Lion” wine promotion, to generate much needed funding for lion conservation in Southern Africa, the beneficiaries of this promotion being Panthera and Lion Management Forum of South Africa (LIMF) – see the articles in this special lion newsletter from Panthera and LIMF!

I have tried to include as much interesting material from various lion research projects, interesting lion comment articles, to give our readers, supporters and friends a good idea of the work being done on the conservation of lions in Southern Africa!

Finally, I need to thank a couple of really special friends, Kobie van der Westhuizen and Tertius Boshoff of STELLENRUST WINE ESTATE for their continued support of SATIB Conservation Trust and lion conservation in Africa – 3000 bottles of premier vintage cabernet sauvignon – thank you!

Help us conserve these magnificent animals, and enjoy a glass or two of Africa’s finest – “CECIL CABERNET SAUVIGNON 2010” – celebrating World Lion Day 10 August 2016! See the article on Page 9 of this publication for more information.

If you would like to support our lion conservation work by making a donation, all international donors can do this by direct transfer of funds to our pay pal account via the SATIB Website: www.satibtrust.com

For African donors you have the option of using our local Trust Account:

Bank: ABSA
Account Name: SATIB CONSERVATION TRUST
Acc No. 407-901-3707
Branch Name: ABSA UMHLANGA
Branch Code: 632-005

Yours in conservation,

Brian Courtenay
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WILDLIFE & COMMUNITIES

Dear lion friends,

Panthera may be the leaders in cat conservation; both for their intrinsic value, but also as umbrella species integral to the functioning of the natural systems that support us. But Panthera cannot do so on its own. Throughout the world Panthera partners with other conservation NGO's, individuals, governments; basically with whomever it takes to get the job done. I have known SATIB Conservation Trust's chairman, Brian Courtenay, for many years and I am delighted to announce a lasting partnership between us. Spurred on by the legacy of Cecil, and our mutual interest in addressing challenges to lions in the Hwange region of Zimbabwe, Panthera and SCT will increasingly collaborate on projects within the KAZA region of southern Africa. We aim to implement conservation initiatives to mitigate the illegal and unnecessary killing of lions respectively in the pursuit of illegal bushmeat or in response to human-lion conflict. We will also through the Vusa series of comic books reach out to children in areas adjacent to protected areas to educate tomorrow's lion custodians. Brian and I both know lions and the sense of wildness they bring to the African savanna, and together intend to hear lions roar wherever space for them can be maintained.

Dr Paul Funston
Senior Director: Lion and Cheetah Programs
PANTHERA



EXECUTIVE SUMMARY

Few stories about an individual wild animal have had as much global impact as that of Cecil, the magnificent, black-maned lion that was illegally hunted in Zimbabwe in July 2015. The massive outpouring of grief and anger spurred significant global restrictions on the import of African lion trophies, and it raised the bar for hunters and governments by requiring them to provide scientific evidence of the purported benefits of lion hunting to the species.

More importantly, this tragedy focused worldwide attention on the plight of the African lion, which is now known to be racing toward local extinction throughout much of the continent. Contrary to popular belief, trophy hunting is a small factor in the fate of the African lion—a relatively minor battle in the larger war on lions that has caused their populations to plunge by more than 43% in the past two decades to just around 20,000. In the same period, populations in West, Central and East Africa are collectively estimated to have declined by 60%. The loss of lion habitat to agricultural expansion is the underlying factor that gives rise to all major threats to lions. Having lost at least 75% of their original habitat over the past 100 years, lions now occupy only about 8% of their historical range and are reported to have already vanished from 12 African countries. As Africa's human population grows exponentially—from 1.2 billion currently to 2.47 billion in 2050—more land is needed to house people and produce the required food to sustain them.

Cultivated land area in sub-Saharan Africa is expected to increase by 21% and livestock by 73% within this same period. As human occupation of African savannas expands, interactions between lions and humans become more frequent. Lion prey species compete with livestock grazing in protected Areas (PAs). Close contact with domestic herds can lead to lions killing livestock, which in turn provokes retaliatory killing of lions by herders and ranchers. This is one of the top three threats in West, Central, East and parts of Southern Africa.² Outside official PAs, retaliatory and preemptive killing is considered the primary threat to lions. Human encroachment also leads to illegal bushmeat hunting, a second severe threat to both lions and their prey. While bushmeat was once obtained primarily for subsistence in rural communities, today it is also sold commercially within African urban markets and internationally to markets in the United States and Europe.

As bushmeat hunting expands from the forests to the savannas, vast areas have been emptied of large wildlife, especially the medium to large ungulates such as wildebeest, zebra, buffalo and impala on which lions subsist. Even the largest PAs are affected by bushmeat poaching, including the Serengeti where tens of thousands of wildebeest are killed in snares each year.⁴ In addition to a depleted prey base, lions are often caught and killed in the snares poachers indiscriminately set for the lions' prey. In Mozambique's Niassa National Reserve, snares are the biggest threat to lions, causing 52% of mortalities. New threats are emerging, including a growing trade in lion bones and other body parts. In addition to local African use of these products for ceremonies and rituals, lions are being poached as a substitute for tiger bones in Asia.



THE CECIL EFFECT

There are many reasons why Cecil's story resonates with the media and public: the fact that the lion was named and well-known to researchers and tourists in Hwange National Park; the fact that he was a radio-collared animal; that he was killed for "fun" by a wealthy American; the tearful announcement of his death by a popular U.S. TV host; and the viral spread of photographs and commentary on social media. While the hunter was not ultimately charged with a crime, these factors galvanized a fateful moment into a global movement to avenge Cecil's death. Since that day, numerous governments, corporations, advocacy groups, and science-based organizations have taken action.



Several Western nations moved to tighten restrictions on the import of lion trophies. France and the Netherlands banned lion trophy imports outright, while the United Kingdom issued a sharp warning to the hunting industry and governments in countries permitting lion hunting to improve their performance or face a ban on trophy imports. Australia had banned lion trophy imports earlier in the year, reportedly in response to lobbying against canned hunting.

Major airlines, including Delta, United and American Airlines, announced that they would stop carrying hunting trophies from lion, leopard, elephant, rhinoceros and buffalo, joining British Airways and Virgin Atlantic, which already had bans in place on the carriage of hunting trophies. In January 2016, following the publication of a devastating study showing that most African lion populations were declining sharply, the U.S. Fish and Wildlife Service granted endangered status for the West and Central African lions, and threatened status for East and Southern African lions under the Endangered Species Act. U.S.

Fish and Wildlife Service Director Dan Ashe stated that the listing would raise the bar significantly for African lion trophies by requiring documentation proving that the hunts had been conducted in a sustainable manner. In addition, source countries would need to show that their programs actually enhance and protect wild populations. This represents an ambitious standard rarely achieved without concerted effort and ongoing verification.

Only a few cases meet these criteria. It is important to note that well before Cecil's death, some African countries that allow lion hunting had begun taking action, heeding the scientific consensus that poorly managed hunting is unsustainable. In recent years, Mozambique, Tanzania, Zambia and Zimbabwe have enacted significant reforms on lion hunting practices, including reducing their quotas for lions. At times, both Zambia and Zimbabwe have suspended lion hunting for multi-year periods to allow populations to recover. The positive actions of these countries and the Cecil Effect notwithstanding, lions in much of Africa are in freefall.





POPULATION STATUS

While no credible historic estimate of the number of Africa's lions exists, the continent must once have been home to hundreds of thousands of individuals, distributed everywhere except the Sahara Desert and the equatorial rainforests of the Congo Basin. European colonization triggered a widespread decline, which has continued to escalate as human populations have grown.

This decline has accelerated in recent years. Over the past two decades, the African lion population is thought to have decreased by 43%, with approximately 20,000 remaining. Only four Southern African countries have bucked this trend: Botswana, Namibia, South Africa and Zimbabwe. Together, these four nations are home to an estimated 24-33% of Africa's lions. Here, lion numbers have increased by 12%. But much of this gain, especially in South Africa, is the result of reintroductions into fenced, intensively managed and relatively well-funded reserves—a scenario not replicable for most of the remaining lion range. The gains in Southern Africa obscure the rates of decline elsewhere. For example, lion populations in West, Central and East Africa are collectively estimated to have declined by 60% in the same period.

Lions now occupy only about 8% of their historical range (which once spanned an area of over 13 million km²) and are reported to have already vanished from 12 African countries, with possible recent disappearance in another four countries. Moreover, little is known about the lions of Angola, Central African Republic, Somalia and South Sudan where civil conflict and poorly funded or maintained PAs are suspected to have driven steep declines. African lions are classified as Vulnerable on the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species. However, the lions of West Africa are considered Critically Endangered, having lost nearly 99% of their historical range and with just 400 individuals (including large cubs and sub-adults—fewer than 250 are adults). Of these 400, 350 are in a single subpopulation, W-Arly-Pendjari (WAP) complex, which spans Benin, Burkina Faso and Niger. West African, Central African and Asiatic lions are genetically similar and likely comprise a separate subspecies (*Panthera leo leo*) from the East and Southern African lion (*Panthera leo melanochaita*). Only six countries unequivocally harbour more than 1,000 wild lions: Tanzania and Kenya in East Africa, and Botswana, Mozambique, South Africa, and Zimbabwe in Southern Africa.

A seventh country, Zambia, perhaps has 1000 lions, or close to that number. The largest subpopulations are: Selous-Niassa (Tanzania/Mozambique), Ruaha-Rungwa (Tanzania), Great Limpopo (Mozambique/South Africa/Zimbabwe), Okavango-Chobe-Hwange (Botswana/Zimbabwe), and Serengeti-Mara (Tanzania/Kenya).

There are thought to be ten lion strongholds, defined as a population containing at least 500 adults: Ruaha-Rungwa, Serengeti-Mara, Tsavo-Mkomazi (Kenya/Tanzania), Selous (Tanzania), Luangwa (Zambia), Kgalagadi (Botswana, South Africa), Okavango-Hwange (Zimbabwe / Botswana), Mid-Zambezi (Mozambique/Zambia/Zimbabwe), Niassa (Mozambique), and Great Limpopo (Mozambique, South Africa, Zimbabwe).



WILDAID

WILDCRU
Wildlife Conservation Research Unit



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THE QUALITY STREET THEOREM, SAVING LIONS NOT SELLING TOFFEES

Article by: Brent Staplekamp

I hope the title to this article grabbed your interest and got you asking “what has confectionary got to do with lion conservation?”

Well, increasingly conservationists are realising that if we are to succeed in our efforts we need to break free from the straight-jackets of our age-old paradigms like “Fortress conservation” and look to other disciplines to help us. I failed my O-level maths (Twice) so I am the last person to think that I’d be looking to economic theory to save lions, but here we are!

After the killing of Cecil and the subsequent backlash against trophy hunting, I had a very unpleasant attack from a professional hunter who said that if lion hunting was banned it was because of me and if that happens, I would personally be responsible for the eventual extinction of the species! Of course the thought that I’d be responsible for the extinction of our oldest companion shook me a little but it was that aggression from the hunter that made me wonder, “why was the hunting industry so defensive and protective of lion hunting?” To answer that I looked into their marketing.

I found, on the very site of my attacker, that a lion hunt was offered as follows:

Lion/Buffalo 18 day hunt at \$3000/day = \$54,000

Lion/Double buffalo 20 days at \$3400/day = \$68,000



If you as a hunter want to shoot a lion, you book one of these hunts and pay the daily rate for the full duration of that hunt even if you shoot your lion on day one!

That encourages you to take full advantage of the time spent in Africa and you fill your days shooting “lesser species”. The lion hunt needs baits and when you shoot your buffalo it’s body will be used as such, but to cover more ground, you’ll be told you need more baits and so you shoot a zebra and a kudu and a hippo. Each of these is added to the bill. I looked at the price list for these lesser species and here are a few examples:

Buffalo \$6000, Kudu \$2000, Caracal \$1000, Bushpig \$650, Genet \$400, and Dove \$2.

It dawned on me that the hunting operator makes his money on daily rates and selling these lesser species, and he can only do that if he offers you a lion. You don’t need to offer a kudu and an impala as incentives to sell a lion hunt, they sell themselves! But you need to offer a lion as the incentive to sell a kudu and an impala hunt at \$3000/day!

I thought of an easier more digestible example of this economic theory and that is.... Quality Streets!

Ostensibly Quality streets are a box of toffees! 12 different flavours according to Wikipedia, but a box of toffees none the less. They are expensive and that begs the question, “Why do we pay more for this box of toffees than the next brand? The answer lies in the incentives! “The large purple one with the nut” and the “green triangles!” The lion and the buffalo, “if you will?”



The clever marketing people realized that if they were to sell toffees at a higher price than their competitors they would have to offer you an incentive. They just add a few good ones at a ratio of about 2.5% and their tins of toffees sell like the proverbial "hotcakes!" South Africa (the country) has seen a huge increase in the number of private game farms where animals are bred and raised for trophy hunting. These areas are fenced and the animals are selectively bred for their trophy quality with blood-lines brought in from as far as East Africa and even protein supplements build into their diets for speedy growth. Neighbouring countries can't compete with the size of the trophies or the lower prices and so they have to offer something else. They offer a more "Authentic African safari" with the dangerous "Big 5" and unfenced areas but, they still need to "move" those toffees and so they add lion to the box.

I have been at the very centre of the debate around the pros and cons of trophy hunting over the last year and I think we all get the sense that it's days are numbered. We could argue about that until the cows come home but instead I think we could best serve conservation by planning for that day and finding a sustainable alternative. Huge areas of Africa today exist as wilderness only because they are currently defined as hunting areas and bring in an income that argues for their continued existence as wildlife habitat. There is a very real threat that these lands could quickly turn to other sources of revenue generation, that may not be wildlife friendly, if they cease to bring in an income. So if we are looking for an alternative to trophy hunting then we need to fill that niche. There is good news though, and that is the template is already in placethe Quality street theorem!



I propose, along with a growing number of people worldwide, that we use the African lion as the flagship that represents the needs of all the other species that come below it in the food chain. It is a unique species in terms of its evolutionary history with us and has undeniably shaped our collective human culture. It is a key-stone species in that it's removal from a system, like the wolf in Yellowstone, would start the unravelling of the intricate fibres of whole ecosystems. It is a flagship species in that it attracts attention and interest like few others and finally it is an umbrella species. An umbrella species is one that's position in a system represents or covers the needs of others below it. If we have a stable lion population we will, by the very nature of its position, have a stable prey population and stable landscapes that incorporate humans and their cultures.

Let's aim to make the African Lion the first **World Heritage Species**. Let's give them the protection that they need because if we lose them we will have lost our oldest companion. We will have lost the most recognisable species across our diverse human cultures and we will have lost our most efficient means of inspiring the passions, the interests and the funding needed to save Africa's wild landscapes upon which we all depend.

Without the Lion we are selling overpriced toffees!
Happy Lion Day!
Brent Stapelkamp - brent.conflictcats@gmail.com



FINDING CARNIVORE CORRIDORS IN THE KALAHARI

Article by: Dr. Laila Bahaa-El-Din



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Lions are wide-ranging animals that need large areas of land in order to survive and reproduce. Botswana has a large network of protected areas, and this has resulted in a stronghold for lions. However, genetic diversity within these lion populations is important for their long-term viability. To maintain such diversity, lions need to move between areas in order to find mates and reproduce. Areas between protected areas are often dominated by people and their livestock, and so when a lion leaves a protected area to find a new territory and mates, it often comes into contact with this livestock. Livestock is tempting for a hungry lion, particularly if there is no wild prey around, as is often the case outside of protected areas. Lions therefore get themselves into trouble by hunting livestock, and are often killed in retaliation. This means that lions, in many cases, do not make it across human landscapes to get to another protected area and spread their genes.

The concept of wildlife corridors is now widely applied. These corridors should provide some level of safe passage to wildlife moving between protected areas. The project we introduce to you here, which is in its infancy, aims to identify and secure such corridors in central and southern Botswana. The first step of identifying the corridors requires that we assess the current level at which lions, and indeed other large carnivores, are moving between the protected areas of the region, including the Kgalagadi Transfrontier Park, the Central Kalahari Game Reserve, and the Magkadikgadi Pans National Park. We do this non-invasively by finding scats for each of the species across the region, and with the use of genetic testing, assess the level of connectivity between the individuals. The models we can use for this are very powerful, and can help us identify where the blocks are. With this information, we can take action on the ground, advising policy-makers on land use changes, securing areas of high wildlife movement, and overcoming blocks. In this way, we aim to ensure the long-term viability of wildlife populations through a widely connected landscape.

Of course, we are talking about vast landscapes in which we need to collect scats for all the large carnivores, a difficult and perhaps even impossible task for us mere humans. That is why we have enlisted the help of Kali, a Belgian Malinois dog with a great sense of smell, and a desire to help us find samples in the field. Together, we will search the landscape, and find the precious data that will help us fulfil our aims, and safeguard lions and other wildlife.

For further information, please contact Dr. Laila Bahaa-El-Din on lailab.sp@gmail.com



KALI - A Belgian Malinois dog used to find scat samples.



HELP US CONSERVE WILD LIONS BY REMEMBERING CECIL

Stellenrust Wine Estate proudly presents Cecil Cabernet Sauvignon 2010, which is being launched to ensure the legacy of one magnificent lion, funds raised will be used in conservation efforts for wild African lions (*Panthera leo*) across Southern Africa. We are seeking support from people who care about our natural heritage by purchasing this superior vintage Cabernet Sauvignon. This wine has been generously donated by Stellenrust Wine Estate. SATIB Conservation Trust (www.satibtrust.com) supported by its primary beneficiary, Panthera, will use all proceeds to fund approved lion conservation projects in Southern Africa, which are backed by sound scientific research.

STELLENRUST - CECIL CABERNET SAUVIGNON 2010

General information from the wine master: Tertius Boshoff

The tribute to Cecil is one of very few Cabernet Sauvignon's still made of grapes harvested from bush vine and honours the majestic King of the lions from the heart of the king of the Grapes, Cabernet Sauvignon, in Stellenbosh.

In the vineyards:

Grapes for this wine are harvested from extremely old bushvine. The soil type is a combination of red clay and decomposed granite and the vineyards follow an east to west planting pattern. Bush vine is a very traditional way of growing grapes in South Africa where the grapes mature and ripen in the shade of the bush. Very few Cabernet Sauvignon vineyards are still grown as bush vine as it reduces yield but also slows the ripening of the grapes.

In the cellar:

Grapes are picked between 25 and 26 balling. It is destemmed, crushed and allowed skin contact through cold maceration for 2 days. Thereafter wild yeast fermentation takes place in open concrete tanks. The cap is manually punched down every 2-6 hours over a period of slow fermentation. After fermentation has finished an additional 2 days post-fermentation skin maceration is allowed. Normal skin contact time is just over two weeks. The wine is then preserved and matured for 24-36 months in small new French oak barrels.

Tastings notes:

This wine blackcurrent, berry and black cherry flavour with an undertone of mint and mocha, well rounded with elegant tannins. Bottle maturation will be rewarding.

Technical Analysis:

Alcohol: 14% pH: 3.50 Total Acidity: 6.2g/l RS: 2.8g/L

Ratings:

Platter Wine Magazine scored the 2009 Cabernet Sauvignon 93/100 points.

How to order:

To order and by doing so, make a donation to SATIB Conservation Trust who support efforts in lion conservation, contact Brian Courtenay – Chairman of SCT, by email: elephant@satib.co.za. Cases of wine will be delivered by DHL Worldwide couriers, all orders in excess of two cases will be dispatched directly from Stellenrust Wine Estate. A case of Cecil Cab Sauvignon consists of 6 bottles (750ml). This offer is limited, while stocks last! All local donations are tax deductible, and a section 18A invoice will be provided to the donor.

An indication of cost of this wine (we recommend you request a quotation from SCT – see “how to order”)

For all local SA residents – the donation of R1500.00 per case, plus transport costs.

Worldwide distribution – a donation of US\$120.00 per case plus all taxes/duties (where applicable) and courier costs.

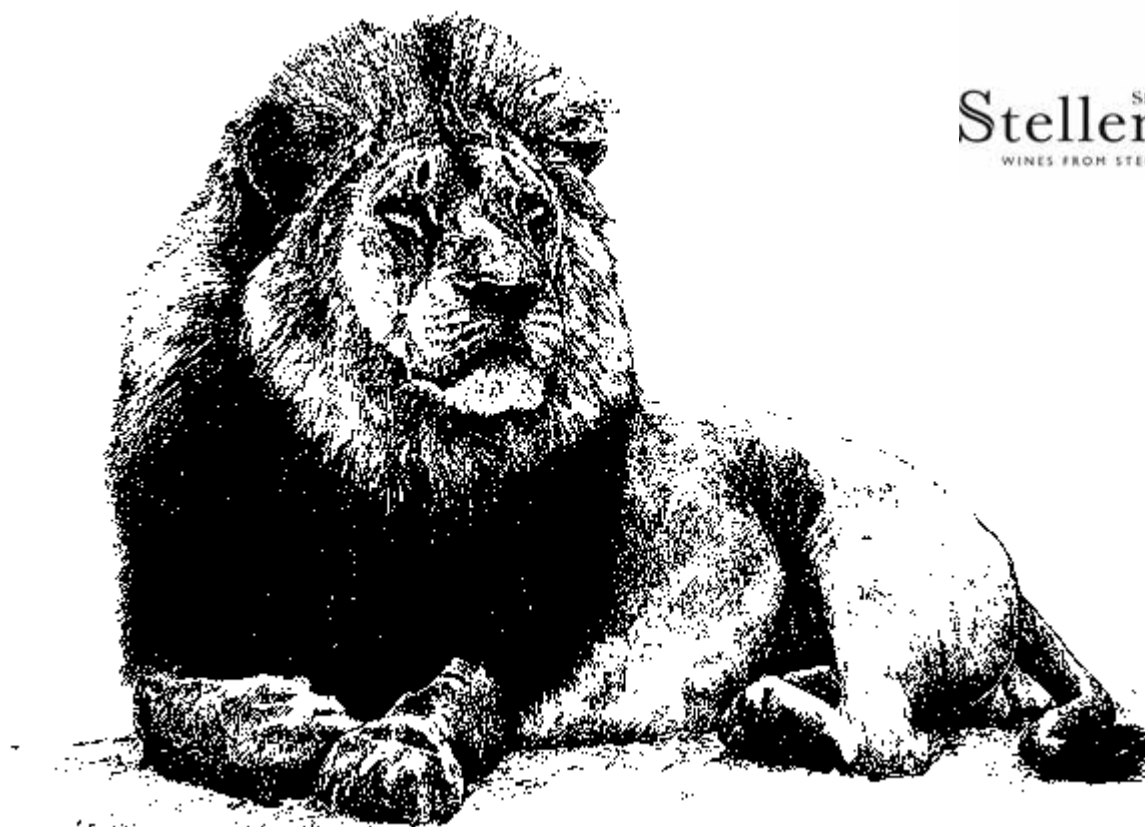
For a quotation, please email us at bcourtenay@satibtrust.com

Thank you for considering supporting lion conservation in Southern Africa.





These two original drawings by well known South African artists. The charcoal drawing of Cecil lying down and a pastel drawing of Cecil's portrait. Large format originals - to be auctioned to raise funds for lion conservation in Southern Africa - proceeds to go to Panthera. For offers, please contact Brian Courtenay at bcourtenay@satibtrust.com





LION MANAGEMENT FORUM (LiMF) OF SOUTH AFRICA



In 2010 a small group of people got together on Phinda Private Game Reserve to discuss the unique challenges associated with the management of free-roaming lions in small protected areas in South Africa. The Lion Management Forum (LiMF) was born. Since this first meeting of 16 people, the LiMF group has expanded to over 70 members and includes managers, veterinarians, researchers and government officials. Since the beginning, LiMF has been committed to a holistic approach that seeks to restore ecological processes, and if not possible, mimic the outcomes of such processes when developing management strategies.

LiMF is first and foremost a forum for members to share their experiences and to discuss solutions to some of the unique challenges associated with lion management on small fenced areas. Subjects of discussion have included over-population, disease control, genetics and human-wildlife conflict. There have been six more formal gatherings since the original meeting at Phinda and countless email exchanges between members.

While LiMF is primarily a forum for discussion and sharing, we have also published a collective peer-reviewed scientific paper outlining the issues surrounding lion management in South Africa and some possible solutions. (<http://reference.sabinet.co.za/document/EJC143727>). We are working on another publication regarding the use of contraceptives. Members have also contributed scientific data to numerous other peer-reviewed publications over the years.

Recently the Department of Environmental Affairs (DEA) in South Africa developed a Biodiversity Management Plan (BMP) for lions in South Africa. LiMF members were actively involved in the development of this document which was published in 2015 (https://www.greengazette.co.za/notices/national-environmental-management-biodiversity-act-10-2004-biodiversity-management-plan-for-the-african-lion-panthera-leo_20151202-GGN-39468-01190) and LiMF will be involved in the implementation in an advisory role.

LiMF registered a research project in 2015 with Rhodes University for a period of three years led by PhD student Orla McEvoy. She is addressing some of the issues surrounding the challenges

of small reserve management and to develop sound management programs for our wild lion populations (link to Orla article in newsletter here).

LiMF is in the process of registering as a charitable trust. This will formalize membership and allow us to receive charitable donations to fund LiMF activities which have so far been largely member-funded. NB LiMF focuses on the management of free-roaming lions and does not include captive lion breeders in its membership. Free-roaming lions are those where most or all of the vital rates of lions are not actively managed by people.

SCT Editorial Comment:

SCT is actually supporting LiMF and we have embarked on a fund raising initiative (see Cecil the lion wine promotion in this newsletter).

Our Chairman, Brian Courtenay, is on the board of LiMF as a trustee to help launch this conservation and research initiative.



We are proud supporters
of SATIB Conservation Trust



READING BETWEEN THE LIONS

Article by: Orla McEvoy - mcevoyor@tcd.ie



Halfway through this three-year project, our research has accumulated a growing database of approximately 392 lions, free-ranging across 24 South African reserves and protected areas. Bringing together findings from 37 reserves with wild lion populations in total, this research represents a united movement to support best-practice lion management strategies across small (<1,000 km²) reserves. In order to address key management concerns outlined by the Lion Management Forum of South Africa, we are currently investigating lion social behaviour and vital rates across participating reserves. This will support the development of holistic and evidence-based management plans for conserving our wild lion populations within small reserves. Over the past number of months, I have been lucky enough to spend time across 29 of these striking wildlife havens, travelling over 20,000km. This has allowed me to get to know both the resident lions and the dedicated wildlife staff at each reserve.

Lion Monitoring ~ This research has initiated a monitoring scheme for lions, focussing on their social and feeding behaviour across participating reserves which vary in the number of resident prides and male coalitions, along with lion management plans in place. Many small reserves have a single pride and few nomadic lions, nomadic meaning lions which roam without protected territories. In these circumstances, with reduced need to protect their territory or cubs from other unknown lions, lion individuals can become more independent in nature, subsequently affecting their feeding patterns. With this monitoring we are seeking the best ways to maintain or mimic natural lion social dynamics, along with predator-prey consequences, on small reserves.

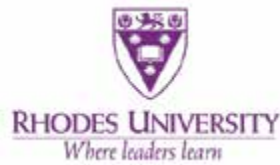
This data collection entails finding the lion(s) from a vehicle and then recording the identity of each lion individual sighted together, along with behavioural and physiological notes. Behavioural notes recorded include general activity along with interactions between the lions such as grooming, playing or mating. Each lion's body condition is also rated based on the extent of fat and muscle layer visible, and the visible condition of the coat. Particular information regarding prey animal is also recorded when the lions have made a kill. The reserve staff have assisted hugely in having reliable identification records, such as ID kits, for many of the lion individuals. In cases where the identity of the lions cannot be known, an age and gender breakdown of the individuals is recorded and a photograph taken if possible. Available resources at reserves, such as GPS or telemetry collars, have helped with locating the lions in certain circumstances, while also providing information on lion movements and territories.

Wild lions are currently being monitored as such across many participating reserves varying in size from 60km² to over 500km² and with approximate lion densities ranging from 1 lion per 7km² to 1 lion per over 40km². Dedicated teams of researchers and field-guides at participating reserves have received training and are contributing invaluable information to this dataset on an on-going basis. Spending up to 20 hours per day catnapping, when only the flick of a tail over long grass provides visual confirmation of their location, monitoring the dynamics of a lion pride, how these cats interact with one another

and hunt together, is a challenging but very rewarding area of research. Since initiating this program, I have been privileged to get familiar with not only the identification and background history of these wild lion populations, but also with some of their more intimate day-to-day habits. With the help of committed teams, these small details when taken across a large-scale can confirm trends and assist with guiding lion management strategies. Some of the powerful cats supporting this research are photographed alongside.

Where we are headed ~ All in all, this project involves a tremendous amount of data sorting and formatting, leading to a lot of quality time spent with my laptop! For example a vast 67 hours were recorded with the lions on a single reserve across a 10 week period. We are also gathering information on lion vital rates, including historical records, which now contains over 600 individuals and dates back to the 1990's in certain locations. Preliminary results from this work have indicated that lions grouped more often with other known individuals and displayed more territorial behaviour when in reserves with more than one pride present. Further data to be collected over the coming months will shed more light on this situation. I will spend the remainder of this year in the field monitoring the sites of lion kills, assisting with lion monitoring programs and running some small tests at participating reserves. For example, we are eager to test to what extent playing recorded calls from unknown lions will stimulate territorial behaviour of lions resident in a reserve. Field-work is scheduled for completion by the first month of 2017, allowing the following months to be used for analyses and paper write-up, with the submission of a final research thesis to Rhodes University in February 2018. With the help of all those involved we are happily driving this research forward on schedule.

Throughout the diverse landscapes from lowveld savannah to sand-dune forests, the invaluable support and keen enthusiasm of all those involved at participating reserves and otherwise have been a constant throughout the progress of this research. Private game reserves such as Phinda and Thanda (KwaZulu-Natal), Blue Canyon Conservancy, Selati and Welgevonden Game Reserves (Limpopo) and Kwandwe Game Reserve (Eastern Cape), are to name but a few within the vital support network. This research is also working with the skilled support of SANParks and Ezemvelo KwaZulu-Natal Wildlife reserves with lion, along with Rhodes University's Wildlife and Reserve Management Research Group. SATIB Conservation Trust and Great Wall Motors have provided integral support, taking the research safely on the road to wild lion populations across some of South Africa's more remote terrain. This research has also been made possible with the proud sponsorship of the National Research Foundation, South Africa, who have provided essential financial support in the progression of this large-scale project. I am privileged to be researching and assisting towards the conservation of these magnificent big cats, and to be part of the team coming together on World Lion Day (10th August 2016), which coincidentally falls on my birthday. Will keep in touch with further updates and results over the coming months.





LIONS OF THE LAKESHORE

Article by: Rae Kokes



In 2006 the International Union for Conservation of Nature (IUCN) published a regional management strategy plan for lion populations in Eastern and Southern Africa. This strategy identified, assessed and categorised 66 areas known as Lion Conservation Units (LCU) across the landscape – “an area of known, occasional and / or possible lion range that can be considered an ecological unit of importance for lion conservation.”

Nineteen LCU's were categorised as having viable lion populations based on a variety of measurable variables, and Matusadona National Park in Zimbabwe was one of them. However since 2004 there has been no research to accurately investigate the current viability and conservation status of this population. Therefore in 2014 the Matusadona Lion Project was founded by the African Lion & Environmental Research Trust (ALERT) to undertake a population ecology study, providing a current insight into the current status of the Matusadona NP lion population and a better understanding of the unique ecology and behaviour of the “Lions of the Lakeshore”.



Matusadona NP is 1400km² of pristine miombo woodland throughout its rugged escarpment region, giving way to a sprawling valley floor area dominated by mopane scrub, mixed combretum, belts of thick jesse bush and eventually an imposing expanse of foreshore grasslands. Here one can find impala, zebra, kudu, waterbuck, bushbuck, buffalo, warthog, elephant and plenty of hippo. The c. 450km² valley floor area has also been historically abundant in lions. Estimates during a 1995 study placed Matusadona NP as having c. 100 lions in this area - the second highest density of lions in Africa (0.2 lions per km²), second only to Ngorongoro Crater.

In the 1980's the foreshore area flourished with nutritious *Panicum* grass supporting a herd of +2000 buffalo, but by the 1990's rising Lake Kariba water levels, brought on by high rainfall in Angola, began to engulf the grazing lands. As the foreshore area began to shrink, the resident buffalo herds suffered giving rise to the predators. Lions gorged themselves on emaciated buffalo and cub survival increased. Eight prides of +10 lions each encompassed the valley floor area and Matusadona became renowned for its wildlife sightings.

As is often observed with predator-prey dynamics a lag period of bounty ultimately ends and by the early 2000's the lion population began to plummet as the buffalo numbers continued to decline. A study in 2004 placed the valley floor population at mere 28 lions within 5 prides.

To date the Matusadona Lion Project has identified 3 resident prides within the valley floor area, deployed 6 satellite GPS collars on study animals, and surveyed large areas of the little accessible escarpment region of the NP to ascertain hyena and lion density. Collars have provided invaluable data on habitat use, namely the importance of the foreshore habitat and influence of annual lake level fluctuations on pride home ranges. By investigating kill sites found using GPS clusters and analysis of scats the study has provided the first in-depth look at the feeding habits of these lions following the demise of the large buffalo herds.

The study has identified 42 lions within the valley floor area since beginning but has also recorded 25 deaths amongst the known groups. Many deaths have been consequent of natural causes, namely starvation and infanticide, however 3 adults have been lost to human activities such as trophy hunting and Problem Animal Control (PAC).

For instance, a single pride male collared by the study in 2014 was, shortly after, driven out by new incoming males before being shot for trophy. Despite this sad loss the arrival of the new males marked a new era for the valley floor population. Since over-taking the 3 resident prides numerous litters have been sired and many cubs are successfully reaching 12 months of age. This increased cub survival, as expected following a pride take over, is also possibly consequent of the new pride males - the “Jenje Boys”, apparent preference for elephants as prey.



Over the last 2 years the study has recorded 20 known elephant kills by the cohort. Elephant ages have ranged from 3 to 30 years though they appear to be mainly targeting animals of 7-9 years. This is the first record of lions actively and successfully hunting elephant in Matusadona NP. It is suspected that resident lionesses may have scavenged from poached elephant carcasses, which were, prior to this study and the establishment of the Matusadona Anti-Poaching Project (MAPP), in large supply. However a free edible biomass is now being made readily available to lionesses and cubs from the hunting prowess of the pride males.

This isn't the first time the lions of Matusadona have shown unusual prey preferences. The Tashinga Pride, ranging along the western boundary of the park, has often been sighted predating on crocodiles. Two sub adult males that migrated from this pride to the neighboring Bumi Hills area have taken this inherited trait with them and have caused an international stir after footage of them killing sizeable crocodiles was placed online. These males left their natal pride in December 2014 after being forced out by the new incoming Jenje Boys cohort.

The origin of the Jenje Boys cohort is unknown. Matusadona NP is an integral part of the larger Sebungwe region, a critically important wildlife landscape within Zimbabwe and part of the Kavango-Zambezi Transfrontier Conservation Area (KAZA TFCA). Despite the importance of the Sebungwe to Zimbabwe's wildlife, the protected areas it contains and the connectivity between them is at great risk to habitat loss.

It is imperative to identify and understand source and sink populations within a larger landscape context. The study has so far observed 3 emigrations of male lions from Matusadona NP as a source population into the surrounding areas. Efforts are underway to collar certain nomadic individuals and it is hoped that data derived from these study animals will help shed light on the location and extent of areas of intact natural habitat beyond the protected areas and help guide management efforts in conserving these potential corridors.

Many areas of the Sebungwe region are poorly resourced and neglected despite their value and potential for wildlife conservation and revenue opportunities from wildlife based activities. Tourism in the region is a mere fraction of what it once was. Whilst both local and international tourists enjoy incredible sightings in Hwange NP, Mana Pools and visit Victoria Falls, Matusadona NP and her counterparts in the Sebungwe go forgotten and often unheard of.

The study's aim is to provide information pertaining to the current conservation status of this Lion Conservation Unit and sub population and also to draw in tourism by promoting the outstanding sighting opportunities unique to this area.

For the few who do visit us by air to Fothergill Island, houseboat from Kariba or by daring the challenging 4x4 only back roads, their efforts are rewarded. Here you can experience the true wilderness of the Zambezi Valley and witness the majestic lions of the lakeshore.





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BLOOD LIONS SUPPORTS LEGITIMATE CONSERVATION COMMUNITY

Article by: Ian Michler, Consultant and Lead Character to Blood Lions

The feature documentary film Blood Lions (www.bloodlions.org) is a relative new-comer to the campaign against the horrors of predator breeding and canned hunting. However, despite its short lifespan, and since its launch almost a year ago it has grabbed the world's attention on these issues in a way that has not been achieved before. Much of this has to do with the film's powerful visual narrative - awful scenes that provide a compelling call to action for everyone other than those few immersed in the depraved activities.

But there is an additional reason that the film has struck such a chord: it comes with an active and visible global campaign that has been built by gathering a coalition of supporters across the entire spectrum of interested parties. It is a rapidly growing group and includes millions of concerned citizens as well as the wider tourism industry, decision-makers and governments, and most importantly, the vast majority of those from the scientific and conservation communities.

And it is this latter category that in many ways is the most vital as their support and guidance serves to address and correct the misinformation and lies being put out by the breeders and hunters. Over the last decade, a heap of misleading and at times false scientific and conservation claims have been made by these industries in an attempt to provide justification for what they do. In essence, they have hijacked the conservation space, which serves to confuse or even mislead those seeking clarity on, or wanting to contribute to securing the future of Africa's predators.





Opponents are clear in their condemnation of these practices bringing shame to South Africa's conservation and tourism community; there is no ecological or ethical reason to be breeding, keeping and exploiting lions and other predators, and the 8 000 or so animals currently being kept under these conditions play little to no role in our conservation efforts.

Amongst the countless politicians and professionals voicing their concern and opposition is Derek Hanekom, Minister of Tourism in South Africa. "I think it has already damaged Brand South Africa – how significantly I am not able to tell. The practice of canned lion hunting and breeding in captivity comes with a lot of negativity and it therefore does and probably will do further reputational damage unless we take some more decisive measures to discourage it. I think we should consider stronger measures to control if not ban the breeding of lions in captivity because we don't need it in terms of our conservation effort," he said.

For more information or to join the campaign, go to: www.bloodlions.org or <https://www.facebook.com/BloodLionsOfficial/>. And to view the latest exposures on the canned hunting industry; <http://carteblanche.dstv.com/player/1067054/>



CAPTIVE BRED LIONS WILL FOREVER BE VICTIMS OF THE HUNTING INDUSTRY

By Louzel Lombard - 28 June 2016 - Traveller24

South African has had over two decades to stem the controversial issue of canned lion hunting but instead the industry has thrived – that is until the controversial documentary Blood Lions put the issue back into the spotlight – setting in motions a few small victories in SA.

It's been almost 20 years since the highly controversial and shocking Cook report exposed the cruelty associated with South Africa's canned lion hunting industry.

The report, a British current affairs television programme aired in 1998 also featured in the globally-acclaimed Blood Lions documentary, featured footage of a lioness being shot several times within a small enclosed area, right next to a fence which separated the animal from her cubs. Conservationists and the general public were up in arms.

But, despite its obvious revelations, captive lion breeding was able to thrive and develop into a billion rand industry over the past decade in South Africa, while the ethical and conservationist red alerts have been shoved to the background.

This while associations meant for lion protection have continued to run parallel with canned breeding associations.

Now, South Africa's ethical hunting authority PHASA, the Professional Hunter's Association of South Africa, have distanced themselves from canned hunting and breeding completely.

In November last year, at the 38th annual general PHASA meeting held in Polokwane, the majority of PHASA members voted to distance the association from captive-bred lion hunting until such time as the South African Predators' Association (SAPA) could prove the conservation value of this practice to both PHASA and the International Union for the Conservation of Nature (IUCN).

Any PHASA member is now prohibited to take part in canned lion hunts.

The move was considered a victory on South African soil but was seen as a rather intentionally delayed response – 20 years after the initial Cook Report.

One cannot help to think that PHASA's move was a direct result of the US's largest airline, Delta Airlines' move to ban of the importation of lion trophies – an announcement made in August 2015.

The US ban had the first major impact on the lion hunting and breeding industry in SA. And in January this year, the US Government as a whole banned the import of all lion trophies from Africa, unless it could be proven that the specific hunt makes a positive contribution to the overall conservation of lions in the wild.

Since the announcement, the local industry is facing total collapse as 70% of the lion hunting clientele hail from the US. According to Pieter Potgieter from the South African Predator Association (SAPA), a group regulating the canned breeding and hunting industry in SA, the lion hunting industry's cash-flow has been affected tremendously.

Because of the ban, "the lion farmers now have no income", Potgieter told Carte Blanche. And still, they need to feed their lion stocks on a daily basis... an expensive practice for no remuneration.

"This forces the lion farmers to make all sorts of other plans," Potgieter says... plans which include offering cheap lion hunting packages for locals, and the euthanasia of older animals. Despite the victory for the future of lion hunting in South Africa, the existing captive bred lions remain victims to the canned breeding industry.

They cannot be released into the wild, and no US hunters are able to pay the big bucks to have its head mounted in their surgeries in Minnesota.

Canned hunting and exploitation of captive lions has gained unparalleled support and awareness through Blood Lions documentary – bringing to the world's attention to the horrors of predator breeding and activities using lions and other species.

As a result, Blood Lions says tourism industry leaders have collaborated to initiate a worldwide 'Born to Live Wild' pledge against the predator breeding and canned hunting industry – presenting a united front that includes the most significant tourism organizations and travel companies around the world.

Editorial comment from SATIB Conservation Trust
"SCT does not support any form of capture bred lion farming! This article written by Louzel Lombard puts this practice into perspective. The negativity by local public and international agencies is mounting". July 2016

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EYE-OPENING CONSERVATION STRATEGY COULD HELP SAVE AFRICAN LIONS

Article by: Dr. Neil Jordan | neil.jordan@unsw.edu.au | carnivoreexistence.info



UNSW
AUSTRALIA



- **A conservationist will paint eyes on the rumps of cattle to try to ward-off lions**
- **The innovative conservation approach is designed to help farmers coexist with predators**

An eye-opening conservation initiative, aimed at helping farmers and their livestock coexist with African lions, is currently being trialled in Botswana. Dr Neil Jordan of the University of New South Wales and Taronga Zoo, Australia, is testing a low-cost non-lethal strategy which involves painting eye patterns onto the rumps of cattle, which graze near wildlife areas and are preyed upon by lions. The idea is that the eyes will trick the lions, an ambush predator, into thinking they've been spotted, causing them to abandon the hunt.

"As protected conservation areas become smaller, lions are increasingly coming into contact with human populations, which are expanding to the boundaries of these protected areas," says Dr Neil Jordan, a conservation biologist from UNSW's Centre for Ecosystem Science. The lions eat livestock, such as cattle, which negatively impacts the livelihood of the subsistence farmers living in these rural areas. With few non-lethal alternatives to prevent the attacks, the farmers often turn to deadly force, shooting or poisoning the lions in retaliation and sometimes even in pre-emptive attacks. Dr Jordan, who works in collaboration with the Botswana Predator Conservation Trust (BPCT), says that these human-wildlife conflicts have a devastating impact on lion populations, which are "draining away before our very eyes".

As Dr Jordan says, "While the death of Cecil the lion was an extremely emotive event for people, ethics aside, about 20 times as many lions are killed in retaliation for eating livestock than by the trophy hunting industry. Alongside habitat loss, and indeed because of it, it's human-wildlife conflict, not American dentists, that is the major threat to lion populations in Africa." By removing lions we also lose their regulating role in the ecosystem, and the stability of the lion population in the protected areas is also reduced, potentially putting a lucrative tourism industry at risk. Saving lions is about finding preventative tools that local people can incorporate into their established husbandry practices. These tools need to be locally relevant and affordable, and this requires thinking outside the box. This project certainly does that!

Dr Jordan's idea of painting eyes onto cattle rumps was born after two lionesses were shot near his study site in Botswana, following a spate of livestock predation in the local village of Sankuyo. "We were desperate for a solution to the problem, and I'm very much of the opinion that there's no better place to look for answers than nature itself", he says. "Lions are ambush hunters, so they creep up on their prey, get close and jump on them unseen. When lions realise they have been spotted by their prey, they give up on the hunt". In nature, being 'seen' can deter predation. For example, patterns resembling eyes on butterfly wings are known to deter birds. In India, woodcutters in the forest have long worn masks on the back of their heads to ward-off man-eating tigers, and thieves can be deterred from stealing with a few carefully placed eyes on posters.

Jordan's idea was to "hijack this mechanism" of psychological trickery. Last year, he collaborated with the BPCT and a local farmer to trial the innovative strategy, which he's dubbed "i-cow". The researchers stamped painted-eyes onto one-third of a herd of 62 cattle, and each night counted the returning cows. The early results from this 10-week trial were promising: three unpainted cows were killed by lions, and no painted cows were killed. But so far the sample size is too small to determine whether this was just due to chance, says Dr Jordan.



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Indeed the team is taking a precautionary approach. "It's very important that we avoid selling desperate farmers false hope, and so we really need to confirm that our i-cow idea is actually effective before we present it to farmers as a viable solution." A successful crowdfunding campaign ensued and raised more than US\$6000 on the science platform Experiment.com. These funds have been used to purchase 10 cattle GPS loggers, and three lion radio collars, which will be fitted opportunistically to lions encountered and darted in the livestock area. These collars will be programmed to collect the lions' location and activity levels every 5-minutes, and will allow the researchers to monitor the movements of cows and lions, and to determine when and where they meet. Measuring the survival of painted versus unpainted cows will ultimately be the measure of success, with movement data of cows and lions allowing the researchers to account for any unexpected differences in risk that painted and unpainted cows are exposed to.

If the tool works, it could provide farmers in Botswana -- and elsewhere -- with a low-cost, sustainable tool to protect their livestock, and a way to keep lions safe from retaliatory killing. Do the 'eyes' have it? Only time will tell.

More information can be found on his website carnivorecoexistence.info including the opportunity to donate to this important work.

Dr Neil Jordan | neil.jordan@unsw.edu.au | carnivorecoexistence.info



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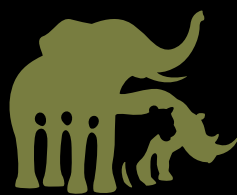
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