



LION GUARDIANS

CONSERVING LIONS & PRESERVING CULTURES

2013

ANNUAL REPORT



“This is twenty-first-century conservation in action”

Sir David Attenborough, Lion Guardians segment, The Future - BBC Africa Series



Kutata shares a smile
during the Annual
Lion Guardians Games

CONTENTS

I. INTRODUCTION

LIONS ON THE BRINK	01
EXECUTIVE SUMMARY	03
OUR IMPACT AT A GLANCE	05
ABOUT LION GUARDIANS	07
OUR STRATEGY & GOALS	09

II. OUR PROGRESS IN 2013

OPERATIONAL GOALS	11
ORGANIZATIONAL GOALS	22
SCIENTIFIC ACHIEVEMENTS	26

III. LOOKING AHEAD

IV. ACKNOWLEDGMENTS

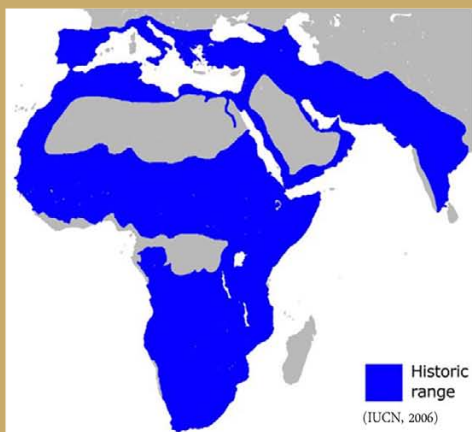
V. FINANCIAL SUMMARY

Lion Guardian Lemiti, a 2013 hire, climbs a hill to search for collared lions using telemetry equipment

SECTION I. INTRODUCTION

LIONS ON THE BRINK

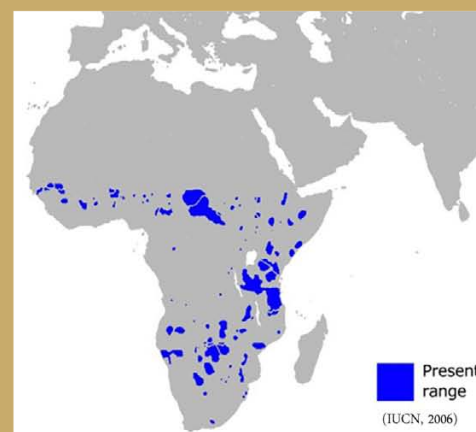
*The world is losing one of its greatest predators, one that has
been intricately intertwined with human history...*



In just five decades, more than 50% of Africa's lions have disappeared

In the last century more than 80% of lion habitat has been lost

Today, there are reported to be less than 30,000 lions remaining in the wild



There are many factors that have contributed to this shocking decline, but retaliatory killing of lions after they attack livestock is one of the main drivers behind the rapid decrease. As human populations in Africa rise, lions routinely come into direct conflict with people over increasingly limited resources. Every year conflicts intensify due to the continuing depletion of wild prey, habitat loss and poor livestock management, further threatening the future survival of the African lion.

African lions are a charismatic species that symbolize strength, grace and beauty. But even more significant, as the largest of the African carnivores, lions play a central role in maintaining the ecological balance across the diverse and broad range of habitats where they are found. Therefore, maintaining a healthy lion population is essential for keeping nature in balance, now and into the future.

Wildlife conservation efforts in Africa have traditionally focused on elephants, rhinos and apes. Far less attention has been placed on lions and other carnivores, despite significant declines in these populations. In fact, the rapidly shrinking lion population has led this species to be classified as Vulnerable on the Red List of Threatened Species of the World Conservation Union. The African lion is also currently being considered for inclusion on the US Fish and Wildlife's Endangered Species List. Conservation initiatives that have focused on carnivores have often failed to adequately involve the people who share the land with these predators and to create programs that acknowledge their cultural values. It is within this context of conflict, community and conservation that the Lion Guardians program was conceived.

The threat to
the remaining
lion populations
is a reality which
is staring us
blindly in
the face



EXECUTIVE SUMMARY

When we founded Lion Guardians seven years ago, our main goal was to counter the rapid depletion of lions by promoting the coexistence of humans and lions. Since then, lion populations have continued to decline in other areas of Africa, but in several areas where we work, lion populations are increasing and stabilizing. We are proud to announce that in 2013 not a single lion was killed by the local communities from the areas where Lion Guardians operate. This is particularly significant, as, since the inception of our program, more than a 100 lions have been killed in surrounding areas, outside of Lion Guardians' jurisdiction. These strong results have been achieved by proactive mitigation of conflict and working together with local stakeholders to prevent dozens of lion hunts.

However, the continued loss of lions to retaliatory killings across Africa at large, prompted us to focus on strategically scaling-up our program so as to improve the connectivity of lion populations and increase their chances of survival. Coupled with this urgent need to expand, we have experienced significant external interest in the Lion Guardians model. We have been approached numerous times by other communities and conservation organizations to receive training and explore partnerships. We, therefore, spent a significant amount of time and effort in 2013 focusing on ways to expand and scale-up Lion Guardians on the ground and respond to this external demand. To guide our work and resources, we developed a five-year strategic plan and implementation strategy that will allow us to protect more expansive landscapes where lions are being killed at alarming rates. We intend to do this by growing our own operations, building new partnerships and sharing our model. In 2013, we began implementing this strategy by expanding to a new site in northern Tanzania, adjacent to Tarangire National Park, in partnership with the Tarangire Lion Project.

In addition to the new Tarangire partnered project and our core project, which covers three communally owned Maasai group ranches in the greater Amboseli ecosystem, we also have a partnered project in Ruaha, Tanzania. Between these three sites, we now have 52 Lion Guardians employed in East Africa – a 25% increase since 2012 – who are protecting more than 4,400 km² of vital lion habitat.

Another major development this past year was the completion of the new Lion Guardians Training Center, which was built on land generously donated by the Maasai leaders of the area. The center was completed in June and has already provided vital training to over 100 people in East Africa. Furthermore, in our continued efforts to work with communities and to assist the expansion and training process, we also developed a 20-minute educational film to help raise awareness about lion conservation. The film has already been shown to thousands of people throughout East Africa.

As we look forward to 2014, we are excited to expand to new landscapes where lions are declining and partner with conservation groups and communities to stop this trend, whilst continuing to strengthen our current programs and maintain stable lion populations in our existing sites.

We encourage you to read on to learn more about our exciting developments from 2013.



Dr. Leela Hazzah,
Executive Director



Dr. Stephanie Dolrenry,
Director of Science



Lion Guardian Olubi searches for lion tracks in areas where lions come to drink water

OUR IMPACT AT A GLANCE

0 LIONS WERE KILLED BY MAASAI FROM THE AREAS WHERE LION GUARDIANS OPERATE IN 2013

In the last 7 years, 5 lions have been killed in the areas where we operate and those killings were because of political conflict or by people from other areas outside of Lion Guardians' protection. In contrast, over 100 lions have been killed in surrounding areas, outside of Lion Guardians' jurisdiction.

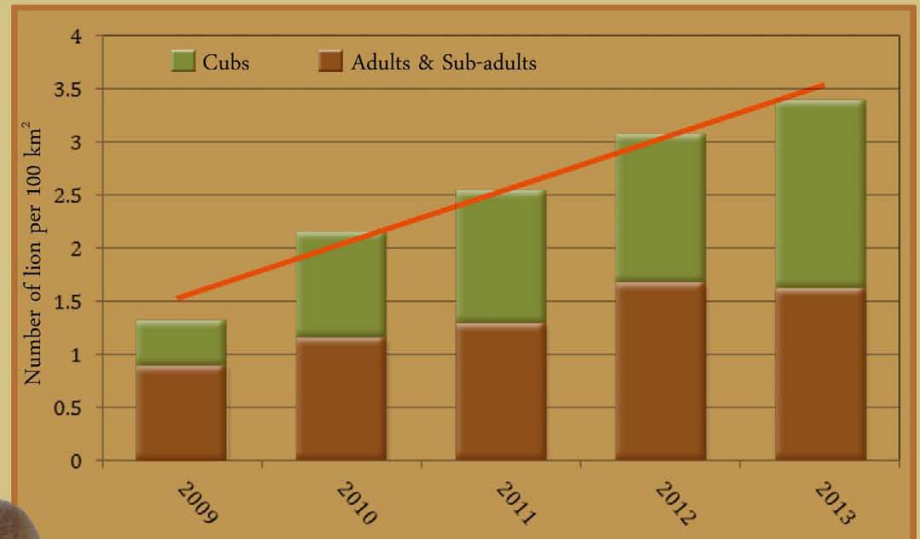


59 LION HUNTS HAVE BEEN PREVENTED OR STOPPED BY LION GUARDIANS IN 2013

54% of these hunts were stopped in collaboration with other conservation partners (Big Life Foundation, Kenya Wildlife Service and Tanzania National Parks).

LION POPULATION IS GROWING

During our years of operation across the broader Amboseli ecosystem, we have documented a steady increase in the lion population. Density is the number of lions monitored each year per 100 km².



72

STAFF

In the last 4 years, we have more than doubled the number of Lion Guardians and expanded our coverage area by 35%

4,431^{KM²}

IN KENYA & TANZANIA



OVER \$1,500,000

OF POTENTIAL LIVESTOCK
LOSS TO THE COMMUNITY
WAS AVOIDED IN 2013

Every year we maintain a livestock
recovery rate of over 85%

Year	Lost	Found
2010	6,708	5,874
2011	7,597	6,411
2012	12,571	11,533
2013	13,118	12,029
Total	39,994	35,847

1,562 BOMAS REINFORCED SINCE 2010

Year	2010	2011	2012	2013
# of bomas reinforced	297	244	351	370
% sampled bomas reporting no depredation	N/A	99%	92%	93%

In order to reduce depredations, Lion Guardians reinforce bomas every year. End of year sampling of reinforced bomas show that over 90% of bomas have not experienced further depredation post-Lion Guardian help.

42 LOST HERDERS AND CHILDREN FOUND BY LION GUARDIANS IN THE PAST 3 YEARS (20 IN 2013)



Four Lion Guardians lead the search for a lost two-year old boy who was found over 5km from his home. He had spent the whole night alone in the bush

ABOUT LION GUARDIANS

MISSION STATEMENT *To promote sustainable coexistence between people and lions by using cultural values, community participation and science*

In 2007, with rapidly dwindling lion populations across East Africa, the founders of Lion Guardians recognized that a new approach to conservation was urgently required. We proposed a solution aimed at preserving the cultural traditions of the Maasai whilst ensuring the survival of lions.

“We believe that the Lion Guardians model is as close to being a silver bullet as we may have in the effort to reduce the conflict between lions and pastoralists.”

Luke Hunter, President of Panthera

The Lion Guardians approach involves recruiting young non-literate Maasai and other pastoralist warriors to become actively engaged in protecting lions rather than killing them. Enrollment in the Lion Guardians program becomes a life-changing experience for these young men who have had no formal education. Taught to read, write and communicate in Swahili, the Lion Guardians monitor lion movements by blending their traditional knowledge of the bush with more modern monitoring techniques. The Lion Guardians warn herders when lions are in the area, recover lost livestock, reinforce protective fencing and intervene to stop lion hunting parties. Collectively these efforts lead to a reduction in the loss of livestock; this in turn enhances the livelihoods of the local people and builds tolerance for lions and other carnivores. These conflict mitigation efforts are founded on century-old traditional techniques and thus are easily understood and accepted by the community.

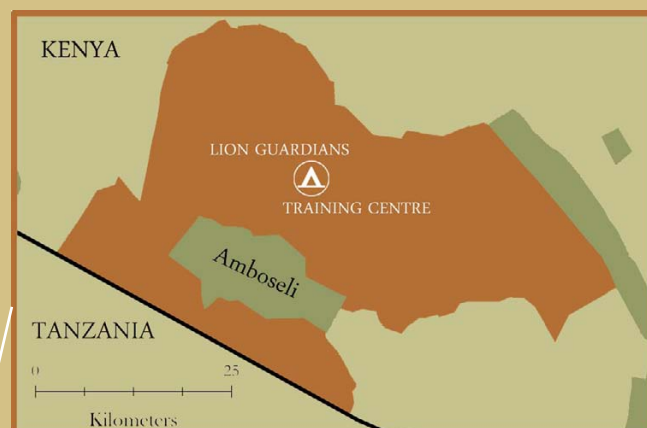
OUR CORE GUIDING PRINCIPLES

- *Participation & Community Oriented:* The **participation** of local communities as full and active partners in all of our work
- *Trust:* Relationships of **trust** within our organization, with our partners, our donors and supporters, and with all of the communities with whom we work.
- *Science-based:* Conservation programs based on **science**, and the integration of social and biological sciences, including traditional and indigenous
- *Valuing Coexistence:* Maintaining a strong link between local **cultural values** and conservation

AREAS WHERE WE WORK

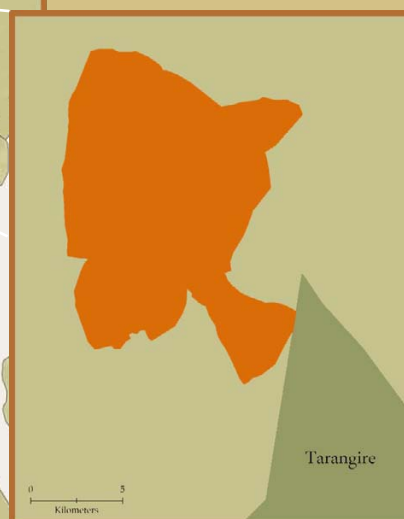
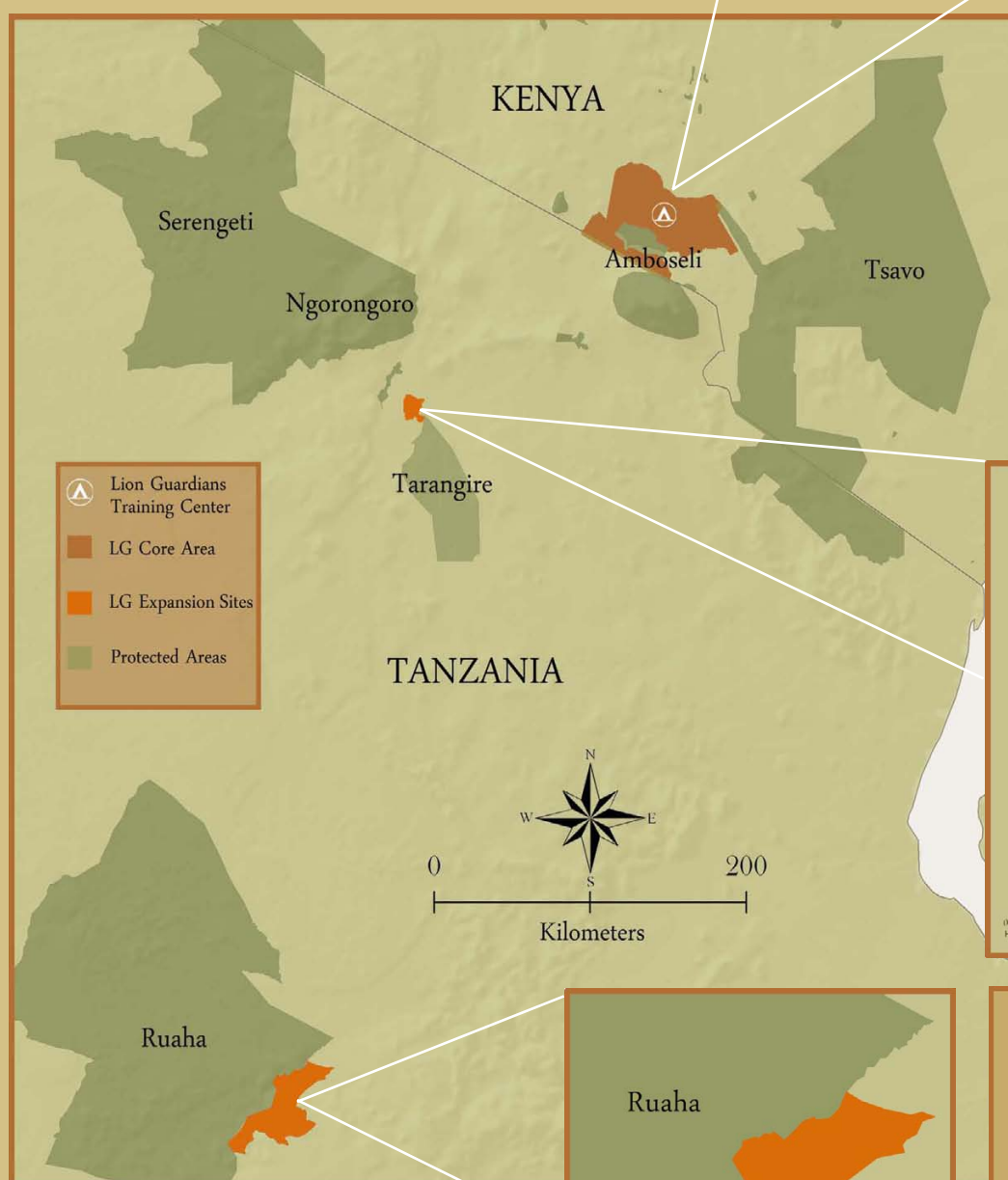
Core Area: Amboseli

The Amboseli Lion Guardians program was initiated in 2007 with five Lion Guardians covering 500 kms². Today 33 Lion Guardians protect 3,684 km² of communally-owned Maasai group ranches (Olgulului, Mbirikani, and Eselenkei) that surround Amboseli National Park and border the Chyulu Hills National Park.



Expansion Site: Tarangire

The Tarangire Lion Guardians project was initiated in September 2013, in partnership with the Tarangire Lion Project. Eight Lion Guardians were hired from the community to protect lions and mitigate conflicts.



Expansion Site: Ruaha

The Ruaha Lion Guardians project started in 2012 in partnership with the Ruaha Carnivore Project and Panthera, and today there are 12 Lion Guardians patrolling 517.8 km² of vital habitat in the communities east of Ruaha National Park.



OUR STRATEGY & GOALS

When Lion Guardians started in 2007, it was a pilot project operating in one small area. Today, the program has seen several successes with a proven model that is effectively conserving lions in the areas where we operate. Unfortunately, in areas contiguous to our coverage zones as well as across many areas of the African continent, lion populations continue to decline at alarming rates, making it urgent for us to expand our program in a manner that will ensure the greatest possible impact on the ground in an accelerated timeframe. To date, our expansions were based on opportunity and ability but in order to achieve greater impact we felt it was necessary to develop a formalized strategy that would clearly articulate where we were going and how we would get there. As a result, this past year, with help from Maliasili Initiatives, we developed our five-year strategic plan. Our strategic plan will guide us as we grow, ensuring that our actions are deliberate and targeted to allow us to achieve the following goals:

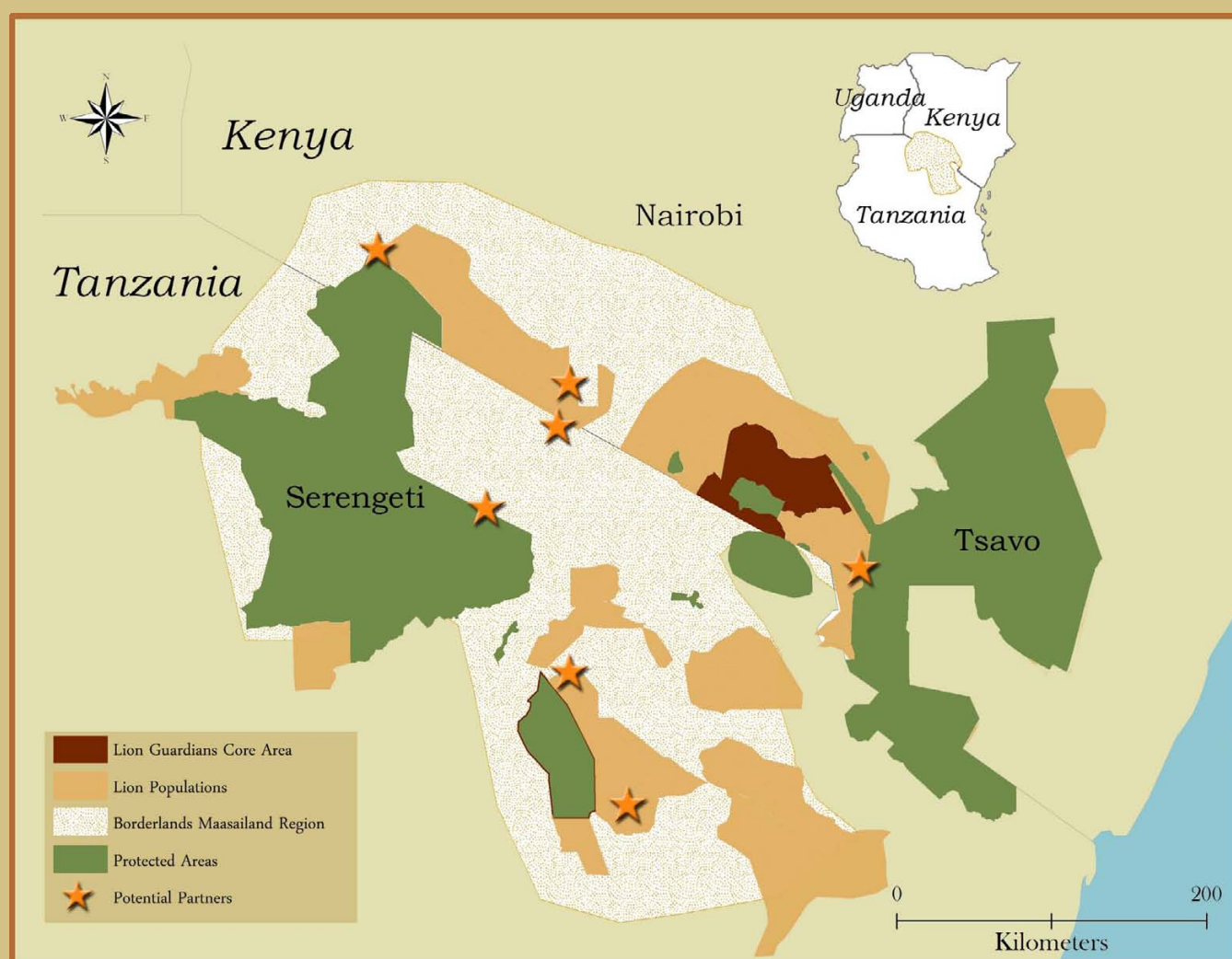
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| OPERATIONAL GOALS | <ol style="list-style-type: none"> 1) To maintain the existing levels of lion population recovery and reduced human-lion conflict in the Amboseli ecosystem. 2) To enhance connectivity between all major lion populations in Kenyan and Tanzanian Maasailand landscape. 3) To expand Lion Guardians' reach and impacts beyond southern Kenya and northern Tanzania through strategic partnerships and provision of training and technical knowledge. |
| ORGANIZATIONAL GOALS | <ol style="list-style-type: none"> 4) To build Lion Guardians' information tools platform in order to provide the technical knowledge and skills needed to execute, improve and monitor its programs. 5) To develop Lion Guardians' organizational capacity in key areas of human resources, management systems, communications, networks and collaborations, and sustainable financing. |

Lion Guardians, Parkesian and Kutata, patrol their zones and work to protect all wildlife species



A key focus of our strategic plan is to enhance connectivity between all major lion populations specifically through vast tracts of non-protected areas. These human-dominated landscapes outside protected areas are often considered to no longer be suitable habitat for lion populations. Yet, many of these areas, particularly the rangelands found in pastoralist areas such as East African's Maasailand, although depleted, still have potential to support lions. Most importantly, these human-altered areas are essential to maintaining connectivity between larger protected lion populations. Without connectivity, lion populations will become genetically isolated leading to inbreeding and consequently individuals and populations that are more vulnerable to disease and population extinction. Human landscapes are, therefore, important components of effective lion conservation strategies and are critical to achieving conservation success. By expanding Lion Guardians' coverage in key community lands, we can help ensure connectivity between several of Africa's largest remaining lion populations. We aim to do this by working with conservation partners as well as through limited expansion by our Lion Guardians core team.

Over the next five years, our primary focus will be to enhance the movement and survival of lions throughout the trans-boundary Maasailand ecosystem of southern Kenya and northern Tanzania.



Map of Lion Guardians' area of primary focus: the trans-boundary Maasailand region of southern Kenya and northern Tanzania. Potential partners identified for coverage of key areas, to collaboratively promote and ensure connectivity between lion populations across the region

In response to requests from other conservation groups and in line with our overall vision, we also aim to reach sites outside of this region, by working with select partners and providing training to organizations that wish to adapt the Lion Guardians model to their own social and environmental context.



SECTION II.

OUR PROGRESS IN 2013

Each year, we work to stop lion killing across broad areas that are critical to lion conservation. We also work to incorporate communities into the monitoring and protection of lions by preserving traditional and cultural knowledge. To do this effectively and to gauge our impacts, we operate within larger strategic goals, which are evaluated yearly and are used to plan for the year ahead.

The following highlights the main progress we made in 2013, in alignment with our strategic plan.

All data presented in this report illustrate the progress we have made over the past year, but for more rigorous analysis of nearly a decade of data, please see our [scientific publications](#).

OPERATIONAL GOALS

Goal 1: To maintain the existing levels of lion population recovery and reduced human-lion conflict in the Amboseli ecosystem

CREATING IMPACT: LION GUARDIANS CORE AMBOSELI AREA

- No lions have been killed by community members living in areas where Lion Guardians operate in 2013.
- Lion Guardians monitored 125 individual lions: 60 adults and sub-adults and 65 cubs.
- A minimum of 39 new cubs were born during 2013.
- Lion Guardians in Amboseli systematically surveyed more than 13,500 kilometers recording the tracks of lions, other large carnivores and their primary prey species (e.g., zebra, wildebeest).
- Lion Guardians recovered 10,336 livestock (3,449 cattle; 6,887 sheep/goats) out of 11,326 reported lost.

Over \$1.5 million of potential loss to the community was avoided because of Lion Guardians' successful intervention and conflict mitigation strategies

- In 2013, Lion Guardians reinforced a total of 312 bomas. At the end of the year, we sampled 20% of these bomas to ascertain whether they experienced any further depredation post-reinforcement. Of those sampled, 93% of owners reported no further depredations after Lion Guardians assistance.
- Lion Guardians, often with the help of other community members, safely found 13 young herders that were lost in the bush.
- Lion Guardians informed thousands of herders in 2013 about the presence of lions and other carnivores. This ensures that people herd their livestock in safe areas and reduces the chance that an attack will occur.
- This past year in Amboseli, Lion Guardians stopped a total of 45 attempted lion hunts, 69% with the help of Big Life Foundation and the Kenya Wildlife Service.

Experience has shown us that lion conservation is most effective if we understand the circumstances that drive conflicts between people and lions so that we can develop targeted mitigation approaches to prevent such clashes. For example, understanding what leads to stock-raiding behaviors or identifying reasons why individual lions become ‘problem’ animals helped us develop strategies to reduce conflict.

Based on nine years of observations, we now understand the livestock-raiding behaviors of the individual lions we monitor. Some ‘well-behaved’ lions rarely take livestock and usually only kill livestock that are left out in the bush. Others, the majority of the lions found in Lion Guardians’ areas, are occasional stock-raiders that take livestock sporadically, often becoming active stock-raiders during particular seasons (e.g. wet season) or times of hardship (some females increase depredations while lactating). These lions, both males and females, cover a broad range of ages (one year of age to more than 10 years of age). About 19% of monitored adults and sub-adults are chronic problem animals and all have initiated stock-raiding behaviors as independent older cubs or sub-adults. The lions that cause the majority of livestock depredations (approximately 90% of reported depredations) are chronic livestock killers that attack livestock year-round and very regularly from Maasai bomas.

In 2013, the Lion Guardians team used this information to target our efforts at the young developing chronic problem lions to discourage bad behaviors, thus minimizing conflict between lions and livestock. We observed a marked reduction in the attacks made by chronic problem lions after we implemented our conflict resolution tools, active and targeted monitoring (e.g. alerting herders to presence of a problem lion) of the specific chronic problem lions.

Reducing conflict between livestock and lions is a key tenet of the Lion Guardians program. We strongly believe that if we can reduce the opportunity for a depredation incident, then we simultaneously reduce the chance of people killing lions in response to their loss.

“Conservation of wildlife is the mandate of the Kenya Wildlife Service, but this work is too huge for us to achieve alone. We need other stakeholders to support us with this mandate, and Lion Guardians has been up to the task. They do tremendous work to protect wildlife, especially with the recent launch of their Training Center – I highly recommend and support their work.”

Julius Cheptei - Senior Warden Amboseli National Park, Kenya Wildlife Service



LION POPULATION AND MONITORING IN AMBOSELI

Our Lion Guardians and biologists closely monitor more than 100 individual lions living on the group ranches adjacent to Amboseli National Park. In 2013, we recorded a slight increase in the lion population, primarily due to the large numbers of cubs born during the year.



Pride sizes are increasing; larger groups of females and cubs are becoming a more common sight

In 2013, 39 cubs were born, with nearly 50% of 2012's year-old cubs surviving through 2013. Cubs that did not survive 2013 were the result of infanticide as well as killing by people who reside outside Lion Guardians' jurisdiction.

Supporting the increase in the lion population, we have observed 66% of cubs born in 2011 surviving to sub-adulthood. Of the cubs born in 2010, 56% have survived to adulthood, and of those that survived, more than 70% of the females are still in Lion Guardians' area and have given birth to cubs of their own. The high survival rates contribute to the positive growth in lion numbers found in the group ranches where Lion Guardians operate.

LION CONSERVATION BRINGS UNEXPECTED COMMUNITY BENEFITS IN AMBOSELI

COMMUNITY CONSERVATION TEACHERS

Lion Guardians employs two community teachers (Jeremiah Moloimet & Emily Moroswa) from two group ranches to teach wildlife conservation at the local primary schools. Students are learning about the importance of conservation and how communities play an important role in giving lions a future.

EYE CLINIC*

As part of our effort to incentivize communities to protect lions and at the communities' request, in November, Lion Guardians, together with conservation partners, organized an [eye clinic](#). Five hundred patients were screened by a team of eye doctors and over 50 patients underwent eye surgery, with all expenses covered. One elder, [Moonka Ol'tingidi](#), so amazed at having his eyesight back said

*"I regret having killed lions in the past,
but now I will pass the message to my children never to kill
lions again because they have given me my sight back"*

*sponsored by Kenya Wildlife Trust and MEAK, and logistically supported by Tortilis and Gamewatchers



The number of cubs born on the group ranches of the Amboseli ecosystem continues to increase with each passing year



Goal 2: To enhance connectivity between all major lion populations in the Kenyan and Tanzanian Maasailand landscape

Lion populations outside of protected areas are the key to ensuring long-term sustainability of lion populations within both protected areas and across their range. Studies have found that genetic viability within a population generally requires 50-100 prides, a number that Maasailand's protected areas simply cannot sustain. Therefore, successful lion conservation requires the preservation of lion populations outside of protected areas to provide connectivity and maintenance of a broader connected network of lion populations, scientifically referred to as a 'metapopulation'.

The rapid decline of lions and their habitat, especially crucial habitat outside of protected areas, calls for an urgent integration of conservation agendas and conflict mitigation tools. To promote collaboration, we have, in partnership with Rebuilding the Pride, developed and organized a Borderland Lion Initiative that draws from the Borderland Elephant Initiative. These initiatives aim to conserve a large, genetically viable, free-ranging metapopulation of lions along the Kenya-Tanzania borderlands through the coordination of conservation efforts and cooperation between key interest groups. Collaboration of conservation and research groups within the borderlands region will be key in achieving the following goals:

- 1) Sharing (or exchange) of data and information to improve the knowledge and understanding of movements and threats to the lion populations across the borderland area and identification of key areas for broader connectivity.
- 2) Maintenance of a viable borderland lion metapopulation: complementing efforts to protect individual lion populations and ecosystems.
- 3) Improved conservation effectiveness: sharing and creating tools to mitigate conflict as well as to identify, and ultimately protect, the critical areas needed to maintain connectivity through the use of culturally-appropriate strategies and incentive schemes ensuring community support.
- 4) Joint advocacy for lion conservation: improving continuity in conservation agendas and policymaking across the borderland region.

The first Borderland Lion Initiative meeting, facilitated by Lion Guardians and Rebuilding the Pride, will be hosted by the School for Field Studies in southern Kenya from January 23-25th, 2014.

THE TIME TO EXPAND

One of the primary goals of the Lion Guardians program is to expand our efforts to areas where lion numbers are rapidly declining. We have spent seven years fine-tuning our model so it can be increasingly applicable and effective in various locales and contexts, both in and out of Maasailand. Now into our third year of expanding the model outside of Amboseli, our results clearly show that the Lion Guardians model has been equally successful at stopping lion killing at these expansion sites. In particular, we are working closely with partners in Tanzania to promote borderland connectivity and are using lessons from our experience to inform our approach as we expand to new areas.

NEW EXPANSION - TARANGIRE COMMUNITIES, TANZANIA

A new Lion Guardians initiative has begun in the communities north of Tarangire National Park (TNP) thanks to a partnership with the Tarangire Lion Project (TLP). This area is important for lion conservation because it provides connectivity between TNP and Lake Manyara National Park as well as to other lion populations to the north and west. In 2012, we began discussions with Dr. Bernard Kissui, Director of TLP, because he was concerned with the high rates of lion killing by the local communities. We held a series of meetings and hosted TLP and 20 members of the local Tarangire Maasai community at our Training Center. Following these events, the community expressed a great deal of interest in initiating a Lion Guardians project. In September 2013, the expansion of the Lion Guardians program began in the communities north of TNP when eight new Lion Guardians were hired to protect lions and mitigate conflicts. The tenured Amboseli team trained all the new Lion Guardians. Construction on the Tarangire Lion Guardians base camp and the search for a new vehicle are under way for the Lion Guardians' Tarangire project.

CREATING IMPACT: LION GUARDIANS TARANGIRE PROJECT

- No lions have been killed since the inception of Lion Guardians' Tarangire program.
- Since September, the newly hired Lion Guardians have fenced a total of 11 bomas and recovered 92% of all lost livestock (1,091 found/1,181 lost).
- Lion Guardians, often with the help of other community members, safely found three young herders that were lost in the bush.

FUTURE EXPANSION - NGORONGORO CONSERVATION AREA

We are working in partnership with the Ngorongoro Lion Project (NLP, which is part of the Serengeti Lion Project) to initiate a Lion Guardians program in the Ngorongoro Conservation Area (NCA). Members of NLP have participated in training sessions at our center. We have also provided programmatic and financial support to NLP to help lay the foundation for a Lion Guardians project. Given the disconnect between the important lion populations in this region, our long-term goal is to promote lion connectivity between the NCA, Serengeti National Park, as well as other surrounding protected areas such as Lake Natron to the north and Lake Manyara to the east.

LESSON LEARNED - SINYA, WEST KILIMANJARO, TANZANIA

After successfully initiating a Lion Guardians project in West Kilimanjaro in 2012, we experienced substantial logistical setbacks due to permitting issues. These setbacks were surprising, and disheartening, yet not uncommon since several non-Tanzanian organizations have faced similar situations due to the extensive permitting process in Tanzania that is continually being revised. Unfortunately, due to these difficulties, we have been forced to scale back our efforts in that region and instead focus on other areas where we work closely with local Tanzanian partners. We plan for the trained Sinya Lion Guardians to work with a local Tanzanian NGO that will oversee conservation efforts in that region. Although these challenges were frustrating, this process taught us that partnering with a well-established organization is absolutely critical to our expansion efforts in Tanzania.

Maasai, from a Tanzanian expansion site, learn how to use a GPS. Their eagerness to use new approaches accelerates conservation and the effectiveness of data collection in remote areas



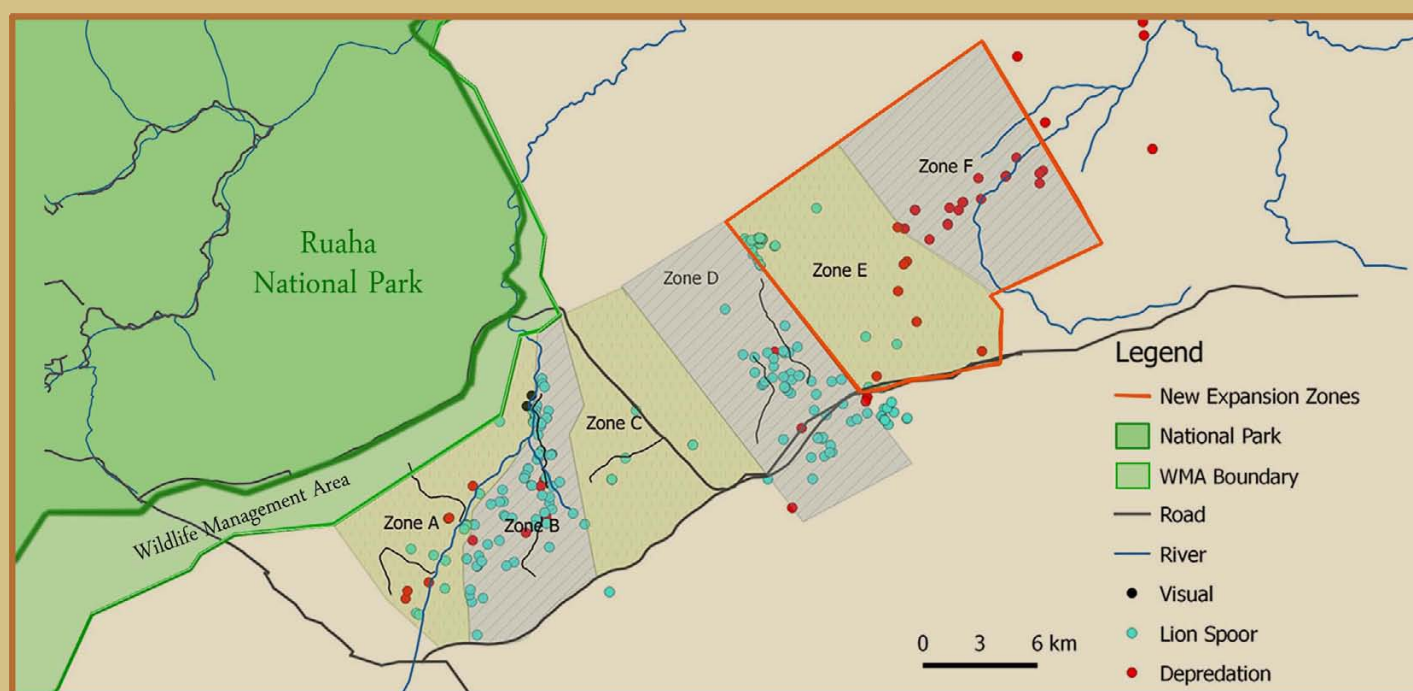
Goal 3: To expand Lion Guardians' reach and impacts beyond southern Kenya and northern Tanzania through strategic partnerships and provision of training and technical knowledge

Although our primary focus is on creating connectivity by increasing lion survival on community rangelands of the Maasailand region of East Africa, the Lion Guardians model could also prove effective in halting the decline of African lions on a much broader scale. In fact, we are repeatedly requested to assist conservation partners from other regions of Africa. In these cases, we work with select partners and provide them with training on how to adapt the Lion Guardians model to their own social and ecological context. Thus far our expansion efforts beyond Maasailand region of southern Kenya and northern Tanzania have focused on an initiative in Ruaha, southern Tanzania as well as providing training to a conservation partner in Zimbabwe.

EXPANDING OUTSIDE OF MAASAILAND - RUAHA, TANZANIA

In 2011, we were approached by the Ruaha Carnivore Project to help them combat the rampant lion killing that was occurring in their area. Ruaha is Tanzania's largest National Park (22,600 km²) and together with the surrounding Wildlife Management Area and Game Reserves, it is home to an estimated 3,500 lions. Ruaha is also surrounded by agricultural and pastoralist communities where conflict between carnivores and livestock owners is rife and lion killing rampant. The severity of the problem there became patently clear when Barabaig warriors killed seven lions during our first visit. Later in 2011, the Ruaha Carnivore Project sent a staff member along with six influential Barabaig community members to visit the Lion Guardians program in Amboseli, after which the Barabaig agreed to pilot the program in their area. As a result, in 2012, we initiated our first expansion outside of Maasailand, to the Barabaig communities east of Ruaha National Park in central Tanzania.

The Ruaha expansion is an exciting collaboration between Lion Guardians, Ruaha Carnivore Project, and Panthera. Currently, there are 12 Lion Guardians patrolling 517.8 km² of vital habitat in the communities outside Ruaha National Park. Following the success seen in 2012, and high rates of conflict, the Ruaha Lion Guardians' project expanded during 2013 (see Zone E and F in map below) adding four additional Lion Guardians and a further 195 km². Since Maasai are also responsible for killing lions in the new expansion area, we hired two Maasai and two Barabaig; one of each tribe within each zone. For the first time, we now have different tribes working side-by-side toward a common goal.



Map of Lion Guardians Ruaha zones (new zones outlined in orange)

CREATING IMPACT: RUAHA LION GUARDIANS' PROJECT

- No lion hunts have been successful within the Lion Guardians' areas of operation since the project was initiated.
- The Ruaha Lion Guardians stopped 11 attempted lion hunts in 2013.
- Each Lion Guardian patrolled an average of 101 km per month in their zone, ensuring coverage of their zones and increased protection of the lions and other wildlife within their area.
- The Ruaha Lion Guardians systematically surveyed more than 1,100 kms noting the tracks of lions, other large carnivores and their primary prey species (e.g., impala, greater kudu).
- Lion Guardians recovered 602 livestock out of a total of 611 that were reported as lost to them, resulting in a 99% recovery rate.
- Lion Guardians successfully reinforced 47 bomas, and none have reported repeated depredation post-Lion Guardian help.

STRENGTHENING THE CAPACITY OF THE RUAHA LION GUARDIANS' PROJECT

The Ruaha Lion Guardians project has now been running smoothly for a year and a half. To date, Lion Guardians Kenya has provided extensive training in both programmatic and administrative aspects. We are now working to make the Ruaha project more sustainable and less dependent. We anticipate that within six months the program will be largely run under the Ruaha Carnivore Project mandate.

In 2013, we focused on strengthening the capacity of the Ruaha Lion Guardians project through various training sessions, workshops and activities. In particular, Sean Mcenery, the new Ruaha Lion Guardians Project Manager, received two weeks of training at the Lion Guardians Training Center and senior staff from Lion Guardians Kenya visited the Ruaha site for extended periods during 2013 to assist with expansions and establish monitoring protocols. Lastly, the Lion Guardians from Ruaha visited Kenya in June to attend the [Annual Lion Guardians Games](#) and to receive intensive training. This opportunity to spend time with the entire Lion Guardians team resulted in an increased sense of camaraderie and improved work ethic for the Ruaha Guardians. Their dedication was proved by the fact that immediately upon returning to Ruaha, the Lion Guardians managed to stop two lion hunts, and their success has been continuing.

CREATIVE WAYS FOR LION GUARDIANS TO KNOW THEIR LIONS: USING CAMERA TRAPS

Currently, each Ruaha Lion Guardian has a camera trap to monitor the wildlife in their area. This is especially important in Ruaha because it is extremely difficult to observe lions and other carnivores due to the thick habitats and difficult terrain. The camera traps are a creative way of helping the Lion Guardians build relationships with the lions they are protecting. These relationships are integral to the Lion Guardians model as they create an emotional bond that motivates the Lion Guardians to protect "their" lions against all odds.





CHANGING ATTITUDES: BARABAIG WARRIORS FINED FOR HUNTING WILDLIFE

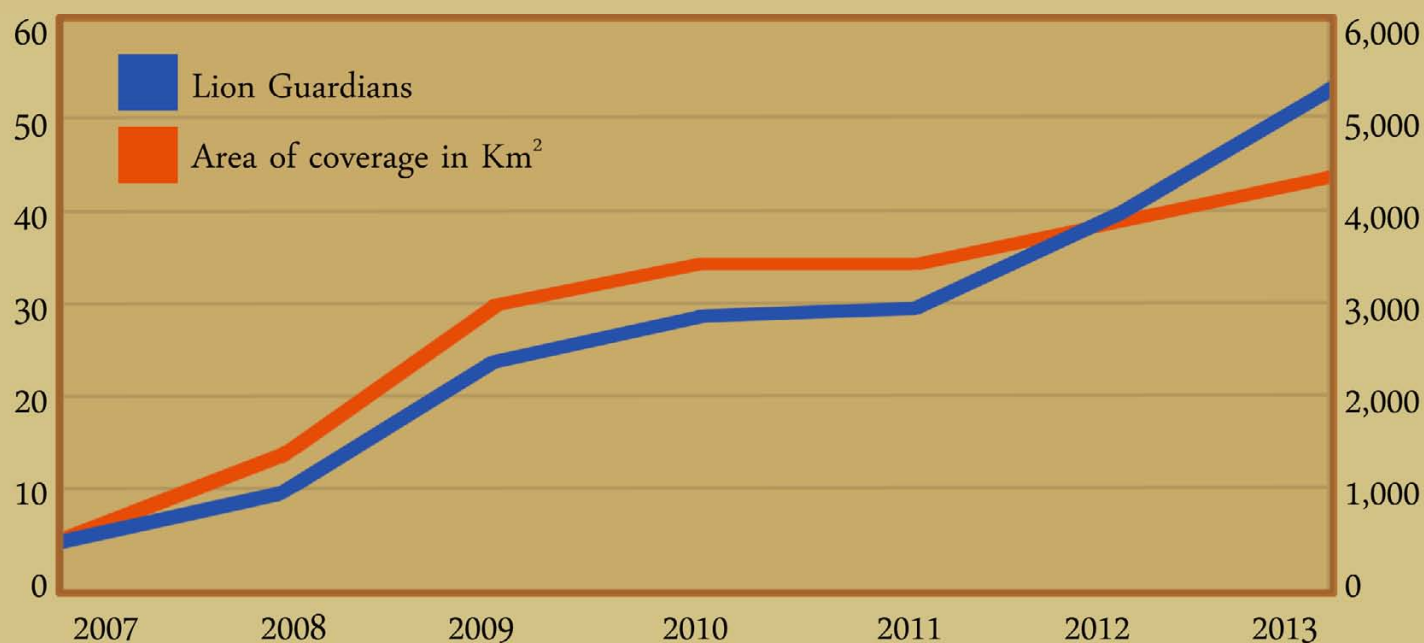
On August 11th 2013, a group of warriors out on a hunt were confronted by two Ruaha Lion Guardians, Daream and Mandela. The group had assembled to hunt a lion that had killed livestock the night before. The Lion Guardians managed to persuade the heavily armed and agitated group of young warriors to abandon the hunt. Upon hearing about the event, the elders, whom already had given strict instructions to all community members not to hunt lions, asked the warriors to give the community two cattle each as a fine for going on a lion hunt. In the past, young men who went on lion hunts were treated with great respect and were revered in Barabaig culture. This is possibly the first time in history that Barabaig warriors have been fined for a lion hunt and it is an encouraging sign that attitudes towards killing lions are changing in this vulnerable part of Tanzania.

Barabaig Lion Guardians,
Pascal and Daream
from Ruaha celebrate a
victory during the Annual
Lion Guardians Games

SITE SPECIFIC LION GUARDIANS PROGRESS 2013

Lion Guardians 2013	Amboseli	Ruaha	Tarangire	Total
No. of LGs	33	12	8	53
Area covered	3,684	518	230	4,432
Period of operation	7.0 yrs	1.5 yrs	0.25 yrs	7 yrs
Livestock found	10,336	602	1,091	12,029
Livestock lost	11,326	611	1,181	13,118
% Livestock recovered	91%	99%	92%	92%
Bomas reinforced	312	47	11	370
Hunts stopped	45	11	3	59
Lost herders found	13	4	3	20

LION GUARDIANS GROWTH 2007 - 2013



The Lion Guardians team in early 2012 before the Ruaha and Tarangire expansions

BEYOND EAST AFRICA: THE LION GUARDIANS MODEL IN SOUTHERN AFRICA

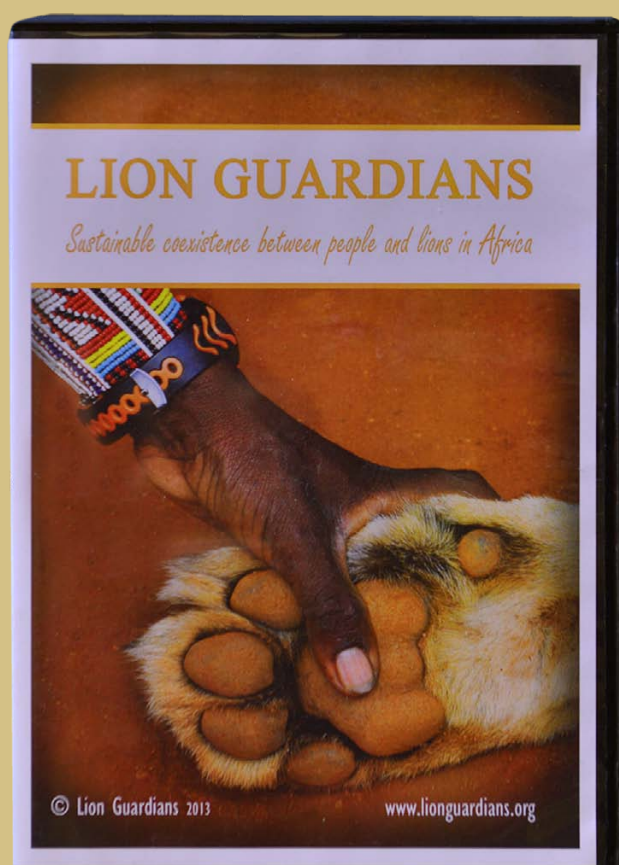
ZIMBABWE LONG SHIELDS - by Brent Stapelkamp, Long Shields Program Manager

In 2011, I visited the Lion Guardians program in Kenya to gain insight and training on how to start my own project in the community lands outside of Hwange National Park, Zimbabwe. The Long Shields, Zimbabwe's version of the Lion Guardians, has grown from strength to strength in 2013 with nine Long Shields hired and trained including seven men and two women. A number of lions, identified as "conflict cats," have been collared and the Long Shields warn their communities about lion locations to avoid conflict. Cattle are moved away from the danger zones and in some cases the Long Shields physically chase the lions back to the park using domestic dogs, drums and more recently and with great success...the Vuvuzela!! Lost and unattended cattle are found and safely brought home; bomas are repaired and checked routinely. Initial data analysis shows a significant reduction in the number of livestock killed by lions since the Long Shields started and we are working tirelessly to maintain that trend.

ORGANIZATIONAL GOALS

Goal 4: To build Lion Guardians' information tools platform in order to provide the technical knowledge and skills needed to execute, improve and monitor its programs

Over the past seven years, we have developed and tested a culturally appropriate model to reduce lion killing and increase community interest and participation in conservation. As lion populations continue to decline across their ranges, it is clear that there is a need to scale up this model. Our operational strategy is focused on expansions primarily through strategic alliances and partnerships. We plan to support this operational goal by using various mediums to reach different audiences. In 2013, we invested a substantial amount of resources and time to develop the tools that will facilitate knowledge and skill transfer needed to roll out the Lion Guardians model.



One example of a new tool we produced this past year is an educational film about the Lion Guardians program to aid in our expansion and program awareness. The film, entitled "Lion Guardians - sustainable coexistence between people and lions in Africa" was completed in May and has already been shown to thousands of people at the Training Center and in local villages around Amboseli, Ruaha and Tarangire regions. There are two versions of the film, one in Maa (Maasai language) and one in Swahili (common language of East Africa) with English subtitles. Seeing the film in their native tongue has made a significant impact on the communities and resulted in a clearer understanding of the Lion Guardians program. A short version of the video can be found [here](#).

After being generously granted 10 acres of land by the Olgulului Group Ranch leaders, Lion Guardians completed the construction of our new Training Center in the Amboseli ecosystem in June last year. In 2014, the Lion Guardians Training Center will offer intensive training courses to new Lion Guardians from expansion sites and to other NGO's and anti-poaching teams in East Africa. Specifically, the program is intended for three interest groups: (1) Program Managers, (2) newly hired Lion Guardians, and (3) prospective local communities. In order to ensure our model is effectively implemented, we are devising a Lion Guardians' certification system that will help our partnered projects to operate at Lion Guardians' standards.

"As a boy, I always dreamed that one day I would kill a lion and earn the respect of my community. So it really shocked my peers, when I decided to interview to become a Lion Guardian last year. They simply couldn't believe a warrior chief would ever think of protecting lions when we know that lions are a prestige to warriors."

"After I was chosen as a Lion Guardian, I was trained to write my name, dates, numbers as well as how to use a GPS. I learned a lot and I can now confidently say that I am able to stop a lion hunt."

Lelian Ole Nkodikio,
Lion Guardian and Warrior Chief



At the Lion Guardians Training Center, Timoine, a Regional Coordinator, teaches three new Lion Guardians, Lemiti, Oshumu and Lelian, how to use radio telemetry equipment



Goal 5: To develop Lion Guardians' organizational capacity of human resources, management systems, communications, networks and collaborations, and sustainable financing

Because we believe that people are core to conservation, we value finding and working with people who share our beliefs and principles and who are dedicated to achieving our goals. This approach has resulted in great success, but it also creates our foremost organizational capacity challenge; recruiting staff with the necessary combination of skills and personal qualities. We also continuously strive to build the capacity of our existing personnel. Therefore, we invested a great deal of time and effort on organizational development last year and will continue to do so over the next four years. Also, we will continue to strengthen the knowledge and reputation of the Lion Guardians program amongst important target audiences.

In 2013, we added five new members to the core team, who have filled in key roles. Lion Guardians now has a full complement of 72 employees most of whom have been with us for many years.

In addition to hiring new staff, we also focused on developing our current staff, refined our management systems, improved our communications, participated in networking events and enhanced our sustainable financing capacities throughout the year.

Below are some highlights of how we built our internal organizational capacity in 2013:

MANAGEMENT SYSTEMS

Last year we refined our field management system by creating the Regional Coordinator position to improve oversight and supervision. Since we have an ever-growing number of Lion Guardians in Amboseli, the Regional Coordinators visit the Lion Guardians daily to check their work performance, verify data, continue training and improve the Lion Guardians' skill set. We have promoted three Lion Guardians to serve as Regional Coordinators, each overseeing a group ranch in Amboseli.

CAPACITY BUILDING & PROFESSIONAL GROWTH

Luke Maamai, Lion Guardians' Program Manager, is now halfway through a diploma program at the Kenya Wildlife Service Training Institute thanks to the support of the Kenya Wildlife Trust. While studying at the institute, Luke continues to help with overall Lion Guardians management and supervision

Luke Maamai speaking at a community meeting



BUILDING NETWORKS & COLLABORATIONS

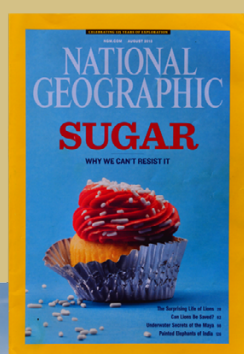
Colorado State University and Wildlife Institute of India invited Dr. Leela Hazzah to attend a ten-day meeting about tiger conservation in India. During this time, Leela gave a presentation about the Lion Guardians model to the graduate students and faculty at Wildlife Institute of India.

The Lion Guardians team presented at three different occasions at the International Congress for Conservation Biology (ICCB) held in Baltimore in July and attended two workshops about leadership in conservation and another on program evaluation which will help us develop rigorous tools to measure the impact that Lion Guardians programs are having on both communities and lion populations.

SUSTAINABLE FINANCING

Last year we diversified and expanded our core and programmatic funding sources by hosting eight donor groups, including the board of trustees from our U.S. Fiscal Sponsor, Wildlife Guardians.

We also identified ways to reduce programmatic costs by improving our internal skills. For example, in order to reduce vehicle maintenance costs, we welcomed Vincent Kearney, a bush mechanic with over 40 years of experience working in remote areas of Africa, to train our staff on vehicle maintenance and set up a rigorous maintenance system for our vehicles at the Training Center in Amboseli.



COMMUNICATION & MEDIA COVERAGE

In February, the Lion Guardians team hosted writer David Quammen and photographer Brent Stirton for a week. They spent time visiting with many of the Lion Guardians as they went about their work helping communities and monitoring lions. The result was an article featuring Lion Guardian Kamunu and the Lion Guardians program in the August edition of the National Geographic magazine ([NGM - lion conservation](#)).



“The [Lion Guardians] program, small but astute, seems to be succeeding: lion killings have decreased and the role of Lion Guardians is now prestigious within those communities.”

David Quammen, National Geographic, August 2013

Film footage: Briggs, Philip J., “Africa: The Future.” BBC Africa series. DVD 2013.

Book chapter: Dolrenry, S & Hazzah, L. The Donkey and the Porcupine. In Hegan, A (Ed.) No More Endings: Saving species one story at a time. (2013) In press.

SCIENTIFIC ACHIEVEMENTS

As one of the few groups with detailed and long-term data on large carnivore movements and demography outside of protected areas, we were extremely busy working on [scientific publications](#) in 2013. Last year, Lion Guardians Directors, as lead authors, submitted six manuscripts for publication and one book chapter. Two were published and two more manuscripts are in preparation. The Directors were also coauthors on a paper regarding the use of fences for lion conservation. All of the manuscripts directly engage the carnivore conservation discourse by providing both the social and ecological sides of lion conservation in Africa. The publication titles are listed below.

- Hazzah, L., Dolrenry, S., Kaplan, D., & Frank, L. (2013). [Access to parks during drought influences attitudes and behavior toward lion conservation in Maasailand, Kenya](#). *Environmental Conservation*, 40(3), 266-276.
- Dolrenry, S., Steinglen J., Hazzah, L., Lutz, S., Frank, L. (2014). [A metapopulation approach to African lion \(*Panthera leo*\) conservation](#). *PLoS ONE*.
- Hazzah, L., Dolrenry, S., Naughton, L., Edwards, C. T., Mwebi, O., Kierney, F., & Frank, L. in press. Efficacy of two lion conservation programs in Maasailand, Kenya. *Conservation Biology*.
- Dolrenry, S., Hazzah, L., Lutz S, Frank L. Submitted. Monitoring the occupancy of large carnivores in human settlements. *Journal of Applied Ecology*.
- Dolrenry, S, Hazzah L, Macdonald L, Frank L. In prep. Participatory monitoring of an African lion (*Panthera leo*) population on the community lands of Kenyan Maasailand. *African Journal of Ecology*.
- Hazzah, L., Dolrenry, S., Dickman, A., Bath, A. In prep. An examination of the multiple social predictors of lion killing in Maasailand, Kenya.
- Creel, S., et al. (2013) “[Conserving large populations of lions—the argument for fences has holes](#)” *Ecology letters* 16.11: 1413-e3.
- Dolrenry, S., 2013. African lion (*Panthera leo*) behavior, monitoring, and survival in human-dominated landscapes, In *Environment and Resources*, Nelson Institute for the Environment; PhD dissertation. University of Wisconsin, Madison.
- Dr. Hazzah has accepted an affiliate faculty position in the Human Dimensions of Wildlife department at Colorado State University.
- Dr. Hazzah has been invited to serve as an Associate Editor for the journal *Conservation & Society*. Her term will last until 2015.





SECTION III.

LOOKING AHEAD

The year 2014 promises to be another exciting and challenging year for Lion Guardians. As we look to expand the Lion Guardians model into areas where lion populations continue to dwindle due to increasing human pressures, we are eager to tackle the challenges that lie ahead and enthused about the new partnerships we will forge. As part of our strategic plan, we intend to strengthen our existing programs and expand into new areas by developing new partnerships to promote connectivity across important habitats. Also, we plan to train new groups on our model so that it can be adapted for different places, people and species. We will also continue to strengthen our own internal capacity, building skills and systems that will support a growing and effective organization.

The year is scheduled to start with a bang in January when we will be co-facilitating the first meeting of the Borderland Lion Initiative. This landmark event will pave the way for borderland collaborations and a brighter future for lion conservation in East Africa. It also aligns very well with our strategic plan and our goals to develop stronger partnerships with conservation groups in Maasailand, both in Kenya and Tanzania, to ensure greater connectivity of lion populations.

Upon conclusion of the Borderland Lion Initiative meeting, we will have collectively charted a course of action for conserving the lions of Maasailand. We plan to establish a steering committee to oversee and facilitate new partnerships, monitor hotspots of conflicts, and assist strategic expansions. We anticipate borderland meetings to be held annually in either Kenya or Tanzania. This is just one of the many exciting activities we are looking forward to this year.



The following is a snapshot of some of the other activities scheduled in 2014 (our full work plan can be found [here](#)):

EXPANDING INTO NEW AREAS

Our years of data gathering have revealed that Amboseli lions move through several critical areas, often west towards the Rift Valley or east towards Tsavo National Parks. In 2014 we will explore opportunities for expansion to the Tsavo West-Amboseli corridor and the Mailua/Matapato areas to the west of Amboseli ecosystem. As we expand out of the Amboseli ecosystem, these two critical corridors are essential to the next phase of lion conservation. They have become even more of a priority due to the high number of the adult and sub-adult lions that we monitor in Amboseli group ranches, being killed or disappearing into these areas. In 2013 alone, we confirmed four known lions killed in these areas, with an additional 25 other known individuals believed to have been killed when they moved to those regions during previous years. High rates of poisoning are suspected and several spearing incidents have been confirmed.

In 2014 and 2015, we will require support to protect the Amboseli lions as they move beyond the borders of the group ranches where we currently work and into unsafe areas from which many of them are not returning. We also anticipate putting more resources into the Tarangire site to further expand protection in this very important area in 2014. The Lion Guardians program will need to hire more Lion Guardians, buy more equipment and, through community engagement and proactive conservation action, provide protection for lions so they can safely travel from Tarangire National Park to Lake Manyara and beyond.

Furthermore, we plan to spend a significant amount of time assisting the Ngorongoro Lion Project to develop their human resource and organizational capacities on the ground. This is required prior to establishing a Lion Guardians project.

“From my experience leading a major wildlife group for 20 years, I know that saving large carnivores is one of conservation’s biggest challenges, and I have seen no group do it more impressively than Lion Guardians.”

Rodger Schlickeisen, past president of Defenders of Wildlife

RAISING AWARENESS

Starting in 2014, we will be offering training programs geared towards various interest groups that merge the divide between tradition and science. These trainings will draw from the new curriculum that we developed in 2013. It is our hope that enhanced and scaled up trainings will help expand lion conservation into new areas.

To effectively conserve lions and engage communities on a very broad scale, we will be seeking support to help us launch the Lion Guardians’ training program. This support will aid our conservation partners to travel to the Lion Guardians Training Center and participate in our training program.

KEEPING SCIENCE AT THE CORE

We will continue to analyze the raw scientific data we gather to further fine-tune the Lion Guardians model by developing and testing new mitigation techniques. In addition, we will contribute our findings to the broader scientific and conservation communities through both peer-review and popular media publications.

STRENGTHENING OUR COMMUNICATIONS AND MARKETING

We will develop a communications strategy that will support the Lion Guardians’ new strategic plan. Lion Guardians is also working on a new logo, which we hope to launch in early 2014. We thank Living with Lions for their patience as we work towards the new logo.

We are working closely with the new Maasai warrior age-set, the 'Iltuati', by engaging them in the monitoring and conservation of lions. We are steadily recruiting these young warriors to our team as they are the future of lion conservation in Maasailand





SECTION IV. ACKNOWLEDGMENTS

Thanks to our generous donors and supporters we have doubled our operations over the last three years and we hope to see that growth continue. We could not do it without you.

PRINCIPAL SPONSORS



We thank both our US Fiscal Sponsor Lion Guardians U.S. (previously operating as Wildlife Guardians) and the Woodtiger Fund for providing the funding and support for overhead costs, the most difficult costs to acquire. We would not be where we are today without their continued support and faith in our work. We give particular thanks to Susan Wallace, Rodger Schlickeisen, and Caroline Kennedy.

Our expansions into northern Tanzania and the development of our training program would not have been possible without the support of the Wildcat Foundation. Their assistance allows us to continue to partner with conservationists on the ground and provide the needed support, both financial and programmatic advice, which contributes directly to saving lions. Thank you to Panthera for their support of Lion Guardians Ruaha project. For support of the Lion Guardians Training Center and our new educational film, we thank the St. Andrews Prize for the Environment.

Maliasili Initiatives support in 2013 has allowed us to expand and strengthen our reach and impact in order to better achieve our mission. Through their financial and programmatic assistance we have been able to specifically develop a five-year strategic plan and a strong communications program. We are particularly thankful to Fred Nelson and Jessie Davie.

In addition to those mentioned above, the Lion Guardians program has received substantial funding from: the Perkapotomus Fund, the Blue Foundation, Jessie M. Harris Fund, Rosenthal Family Foundation, Fort Wayne Children's Zoo, the Shared Earth Foundation, Priscilla F. Bosworth, Betsy Loyless, James Morgan, Houston Zoo, Sallyann Garner, and AfricaAlive!

We are particularly thankful to our Lion Guardians sponsors and lion adoptees, and to Bruce Ludwig, Todd Oliver, Lisette Gelber, G. Thompson and Wende Hutton Fund, Andrew Currie Fund, Larry Rockefeller, Pirjo Itkonen, Nigel Goodman, Bill and Frances B. Todman, Anne Cressman, Linton Zoo, Calista Lai, Polly Reuling, Adina Savin, Lyman McDonald, Lee Richardson Zoo, and Brenton Head.

We are grateful to Ecosys-Action who has sponsored the Lion Guardians Games for three years running and to our longtime supporters Gamewatchers Safaris who graciously hosted the Games in their conservancy.

Lion Guardians is truly a collaborative effort of various partners on the ground throughout Kenya and Tanzania.

First and foremost, we would like to thank the local communities we work with, particularly Olgulului who has warmly welcomed us on their land; also Eselenkei and Mbirikani Group Ranches.

We would like to thank the Kenya Wildlife Service for their continued support, especially logistical support, with providing water to our new Training Center. We also want to say a special thanks to our on-the-ground collaborators; Big Life Foundation in particular, we have been able to save many lions together and help communities in their times of need. Also, the African Wildlife Foundation, School for Field Studies, and the Amboseli Elephant Trust. Our work has been greatly improved through the logistical support of Gamewatchers Porini camp throughout the year. Kenya Wildlife Trust has provided salaries for six Lion Guardians in Olgulului Group Ranch, thank you!

Thank you to all of our corporate sponsors last year: Whitham, Curtis, Christofferson & Cook, P.C, Center for Alternative Technologies, Kingsway Tyres, Yellow Wings Airline, and Simba Mabati.

Very special thanks to Steve Gold for donating the solar system for the new Lion Guardians Training Center. We finally have reliable power! A particular thanks to Bruce and Carolyn Ludwig, who supported our new community teacher initiative and wildlife club activities in the local primary schools. Many thanks to Wings WorldQuest for hosting an event for us in New York City.

This program would not be possible without the enthusiastic support of all our followers. We want to say a very big thank you to our individual donors who continue to provide financial, logistical, and moral support throughout the years.



Last, but not least, the Lion Guardians team would like to thank Lisette Gelber, who led our finance, administrative, and communications for the past two years. She helped establish Lion Guardians Limited in Kenya and greatly assisted in the designing and building of the Lion Guardians Training Center. She has been an immense asset to our team and we would not be where we are today without her extraordinary work ethic and dedication to big cat conservation. Lisette will be leaving Lion Guardians in 2014, but will remain on our advisory committee to assist with finances as we continue to grow.

The amalgamation of all our supporters makes what we do possible every day. Thank you for helping us realize our mission to conserve lions and preserve traditional culture.

Ashe oleng poken

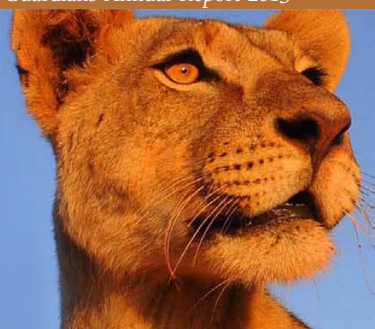
(Thanks to all)



Protecting lions is a community effort
— be a part of the Lion Guardians
community

www.lionguardians.org

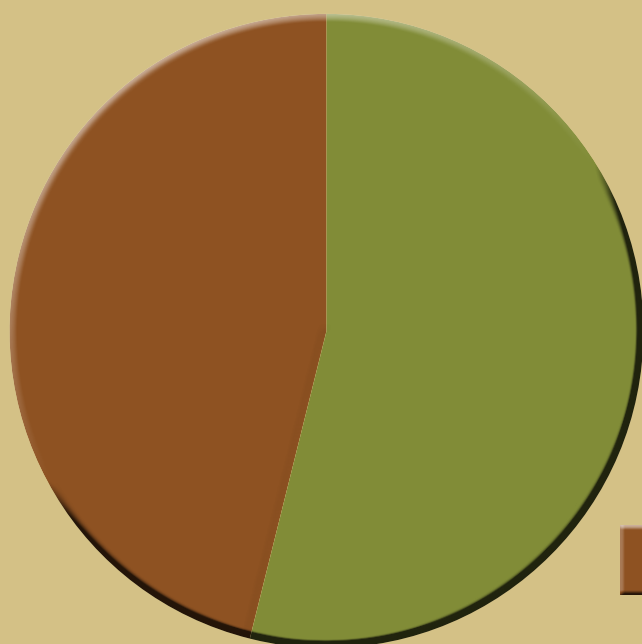




SECTION V. FINANCIAL SUMMARY

Through grants, prizes and funding from our partners and friends, Lion Guardians received approximately \$300,000 in revenue for 2013. All these funds were put directly towards lion conservation on the ground.

TOTAL FUNDS RAISED IN 2013: \$297,012



Every \$ raised goes towards improving local livelihoods, conserving lions, and preserving traditional cultures



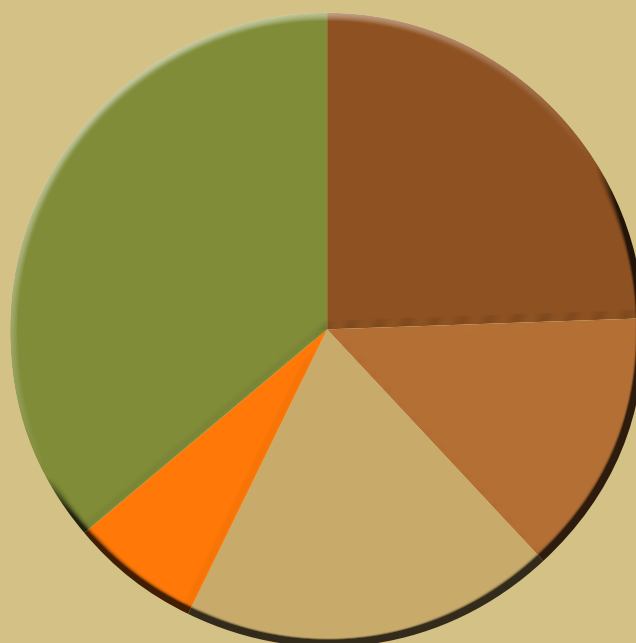
Unrestricted Funds



Restricted Funds

TOTAL EXPENSES INCURRED IN 2013: \$377,099

In 2013, one of our major expenditures was the construction of the Lion Guardians Training Center and the development of our new education film; with the majority of these funds received in 2012. As a result, our capital expenses for the year are significantly higher than usual.



Capital



Fundraising



Personnel



Administrative



Operating



www.lionguardians.org

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