



Final Report from the South Luangwa Conservation  
Society

To

The International Elephant Foundation (IEF)

TITLE OF PROJECT: Supporting village scout anti-  
poaching work in South Luangwa, Zambia.

Reporting Period: January 2011– January 2012

## **Background**

SLCS was awarded a grant from the International Elephant Foundation of \$12,491 in January 2011. The grant was primarily made available to SLCS to support village scout anti-poaching work in South Luangwa and is specifically targeted at supporting the law enforcement activities of the village scouts, with the objective of strengthening capacity of the village scouts and the community in the area of elephant protection and conservation. Supporting village scout anti-poaching activities is pertinent to the current protection of elephants in South Luangwa and is essential for the long term future of the species in Luangwa.

The project's specific goals are:

- Supporting the Zambia Wildlife Authority's law enforcement efforts in monitoring the illegal killing of elephants
- Supporting community activities that will strengthen support for wildlife conservation objectives through education and awareness programs and livelihoods interventions and
- Strengthening the darting and veterinary support program

The projects goals were achieved through the following activities;

- Continued maintenance and support of the Kakumbi village scouts law enforcement body by means of supporting patrols, equipment, rations and fuel.
- Patrols included day patrols, anti-snaring patrols, short and long field patrols and road blocks
- Decrease in elephant mortalities from poaching and controlling crop raiding elephants through mitigating conflict with the chilli fence program
- Existing darting program maintained and supported and improved – reducing the loss of elephants from snares
- Capacity building within SLCS and the CRB's. All village scouts have a contract of employment with their respective CRB's but are assisted in managing these scouts through the skilled personnel within SLCS.

This report outlines the activities undertaken by SLCS with funding from the International Elephant Foundation for the year 2011.

### **Law enforcement support to Kakumbi Village Scouts**

In order to continue our support of the Zambia Wildlife Authority's (ZAWA) law enforcement efforts in reducing the illegal killing of elephants and protecting the wildlife and natural resources of South Luangwa, through our support of the forty three Community Resource Board (CRB) village scouts, the following routine and emergency patrols have been conducted and the scouts have achieved the results outlined beneath.

**Table 1: SLCS supported scout patrol results January – December 2011**

Month	LP	SP	DP	Snares	Suspects	Firearms	Ammunition	DR	Elephant mortalities	Ivory
January	7	0	10	69	5	4	10	4	0	0
February	4	0	9	11	4	2	15	1	4	2
March	6	2	8	3	12	5	63	2	2	2
April	8	2	17	20	14	6	80	0	2	2
May	5	3	10	17	3	8	51	3	1	2
June	4	1	17	94	2	2	53	3	2	2
July	7	2	15	86	9	6	93	5	3	1
August	6	0	20	122	9	2	0	1	6	4
Sept	6	1	15	22	3	0	0	1	0	0
Oct	3	2	11	73	1	2	6	2	4	2
Nov	3	5	8	9	7	1	14	0	5	4
Dec	7	1	11	27	8	3	0	1	5	3
<b>Total</b>	<b>66</b>	<b>19</b>	<b>151</b>	<b>553</b>	<b>77</b>	<b>41</b>	<b>385</b>	<b>23</b>	<b>34</b>	<b>24</b>

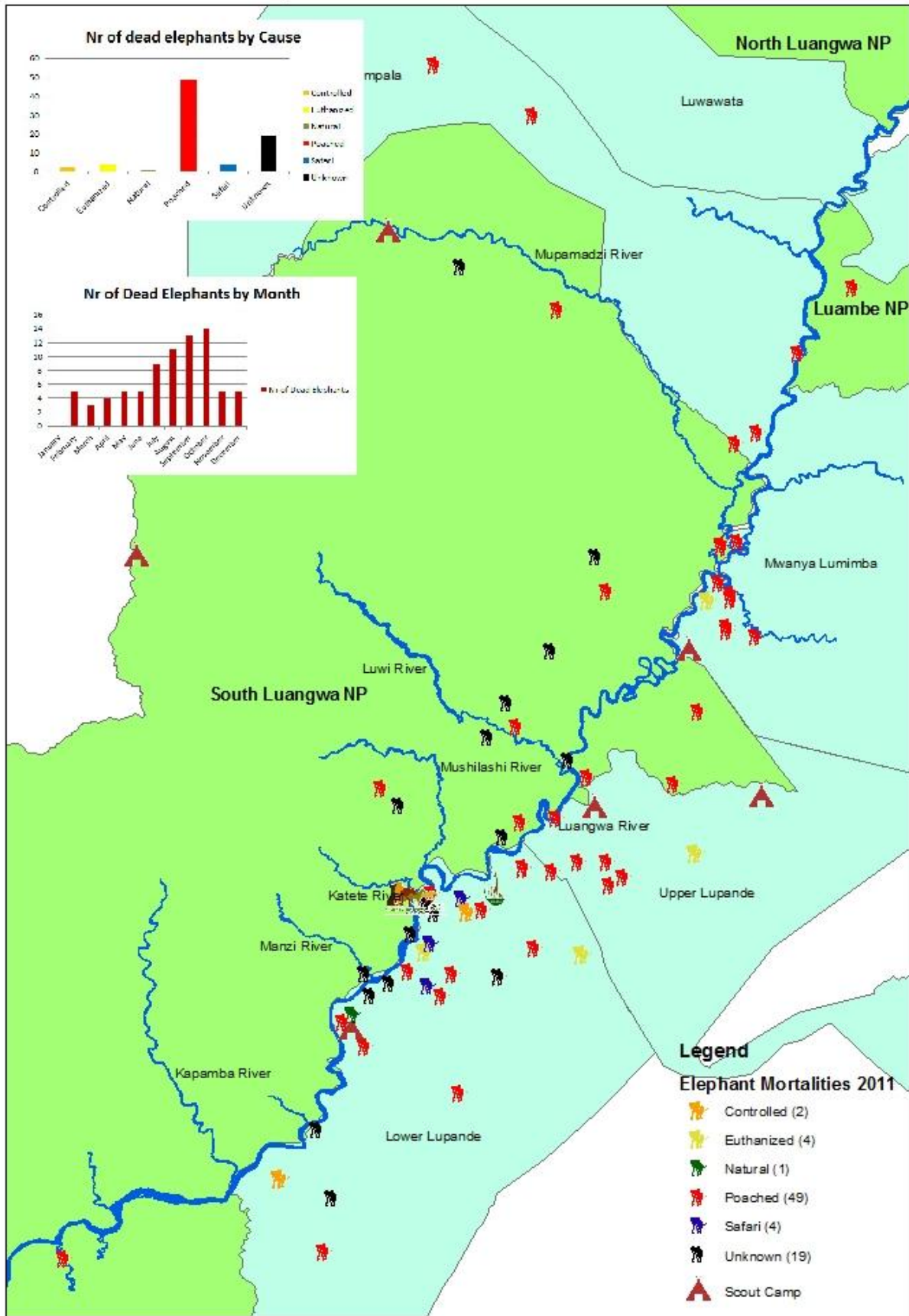
Source: SLCS 2011

LP-Long patrol, SP-Short patrol, DP-Day patrol, DR- Drying rack

**Table 2: Number of effective patrol man days from January – Dec 2011**

Month	Long patrol	Short patrol	Day patrol	Night/day operations	Investigations	Ambushes
<b>Jan</b>	762	0	50	0	0	0
<b>Feb</b>	384	0	50	17	0	10
<b>March</b>	598	27	32	11	0	0
<b>April</b>	613	12	78	6	0	6
<b>May</b>	232	42	50	6	0	0
<b>June</b>	151	12	79	16	0	0
<b>July</b>	275	24	75	11	1	10
<b>August</b>	258	0	95	6	13	10
<b>Sept</b>	244	15	93	0	11	4
<b>Oct</b>	97	25	55	15	15	11
<b>Nov</b>	126	51	35	44	14	9
<b>Dec</b>	635	5	52	15	19	0
<b>Total</b>	<b>4375</b>	<b>213</b>	<b>744</b>	<b>147</b>	<b>73</b>	<b>60</b>
<b>Total man days</b>	<b>5612</b>					

# Elephant Mortalities 2011



**Table 3: Elephant mortalities recorded by SLCS in South Luangwa for the period January – December 2011, including data outside of scout patrols.**

Month	Poached	Controlled	Natural	Unknown	Euthanized
Jan	0	0	0	0	0
Feb	1	1	0	2	1
March	2	0	0	1	0
April	1	0	0	3	0
May	3	0	0	1	1
June	1	0	1	0	1
July	5	0	0	0	0
August	5	0	0	0	1
Sept	6	1	0	5	0
Oct	3	0	0	4	0
Nov	3	0	0	3	0
Dec	5	0	0	0	0
<b>Total</b>	<b>35</b>	<b>2</b>	<b>1</b>	<b>19</b>	<b>4</b>
<b>Grand total</b>	<b>61</b>				

*Source: SLCS 2011*

A total of 61 elephant mortalities were recorded by SLCS in the South Luangwa national park and the surrounding GMA's in 2011. 35 of these were poached in addition to 19 found dead from unknown causes, 1 was found dead from natural causes, 2 were problem animals controlled and 4 were euthanized. The elephant map indicates elephant mortalities for a wider area that we have data for.

#### **Wet season anti-poaching fly camps**

Since 2005, SLCS in conjunction with ZAWA, has funded, coordinated and supervised wet season anti-poaching fly camps strategically situated within the national park. Due to the park's inaccessibility during the rains and the fact that safari bush camps close down for this period, there is an increase in poaching in remote areas within the national park. ZAWA and SLCS often rely on tour operators to report any signs of poaching, and their presence also acts as a deterrent to poachers. When the camps close, the area is left vacant. The fly camps consist of a temporary base camp, fully equipped with solar and radio communications. Eight scouts are deployed at a time and operate on a rotational twenty day patrol period to ensure that the areas are well covered for the duration of the wet season. From the base camps, long patrols, short patrols and day patrols are conducted routinely and the scouts are available for rapid action responses in the area.

### 2011 wet season fly camps

Three fly camps were established over the 2011 wet season in the Luamfwa, Kapamba and Mwamba areas. The fly camps are deployed in December for the duration of approximately four to five months depending on river and road access.

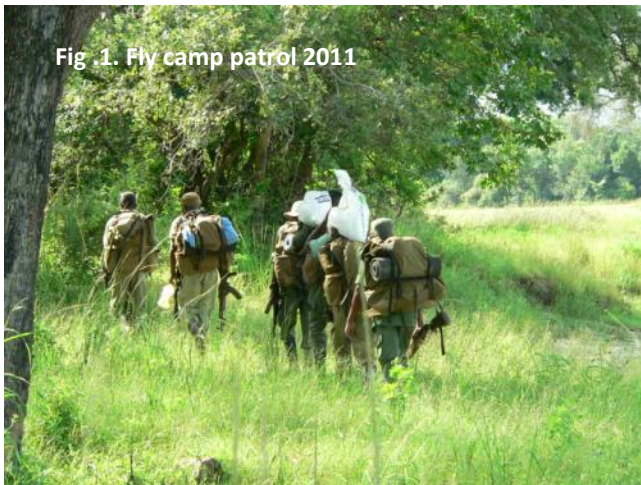


Fig .1. Fly camp patrol 2011



Fig .2. Fly camp deployment by boat 2011

#### Mwamba fly camp

The Mwamba fly camp has proved to be successful over the past few years with increasingly fewer illegal activities encountered. For the 2011 wet season, it was decided that standard ten day patrols would be deployed to this area on a regular basis in order to reduce costs of scout allowances that are normally paid out on completion of a twenty day patrol. A total of eleven long patrols equating to 660 man days were deployed in the area during the 2011 period.

#### Kapamba fly camp

The fly camp was based at Kapamba and Zungulila and long field patrols and day patrols were conducted from there. A relatively high level of illegal activity still occurs in the Kapamba area during the wet season and this is still of concern. Six fly camps were established over the 2011 wet season. The fly camps were deployed at the end of December 2010 through to the end of April 2011 for the duration of four months. The 2011 Kapamba fly camp produced clear results including the following;

- 960 man days achieved
- 3 suspects apprehended
- 3 muzzle loading guns confiscated
- 65 pellets confiscated
- 5 gun shots heard
- 2 overnight camps observed
- Four sets of footprints observed
- Animals poached – 1 buffalo, 1 impala, 1 duiker

#### Luamfwa fly camp

The fly camp based at Luamfwa conducted long field patrols and day patrols. A high level of illegal activity still occurs in the Luamfwa area during the wet season and during the dry season. Eight fly camps were established over the 2011 wet season. The fly camps were deployed at the end of November 2010 through to the end of April 2011 for the duration of



five months and a total of 1280 man days were achieved. The 2010 / 2011 Luamfwa fly camp produced visible results this season including the following;



Fig.3. Wet season Kapamba day patrol 2012

- 10 suspects apprehended
- 37 snares removed
- 9 muzzle loading guns confiscated
- 2 meat drying racks discovered and destroyed
- 2 overnight camps discovered
- Foot prints of ten people seen but no people observed
- 109 pellets for muzzle loading guns confiscated
- Bottle of gun powder confiscated
- Animals poached – 2 buffalo, 2 hippo, 2 grysbok, 2 puku, 1 impala and 1 elephant.

### Intelligence operations supported

A number of routine and standard patrols are conducted on a monthly basis and in addition to this emergency patrols, ambushes and intelligence led operations take place regularly. Supporting these activities is fundamental to the conservation of natural resources and wildlife in the area. In addition to the standard law enforcement support, SLCS also supported a number of intelligence-led investigations and enforcement operations; gathering and using intelligence to execute operations that target more significant offenders in the area. In November SLCS funded an operation involving ZAWA investigations personnel from Chilanga, Chipata and Mfuwe and also the Police and DEC from Chipata. The operation resulted in the apprehension of a wanted elephant poacher and led to further intelligence gathered. Four more investigations operations were sponsored in Lundazi, Petauke and Chipata and follow up operations are still ongoing. All operations involved ivory and elephant poaching.



Fig.4. SLCS ZCP Cessna 180

**Aerial Surveillance.** Aerial surveillance has been conducted during the course of the year when a light aircraft has been available for hire at a reasonable cost in Mfuwe. This has been done in conjunction with the Zambia Wildlife Authority and the Zambia Carnivore Program and has helped us identify a number of elephant carcasses and other illegal poaching activities from the air.

After years of attempting to purchase a plane for conservation work in Luangwa, SLCS and the Zambia Carnivore Program received a joint grant from Mfuwe Lodge and the Bush Camp Company in December 2011 to purchase a Cessna 180 (pictured here). The aircraft will be used for law enforcement and conservation research support in the South Luangwa national park and surrounding GMA's. Currently the aircraft is being exported from South Africa. SLCS is also in discussion with ZAWA about the possible re-opening of Kakumbi airstrip inside the national park. This is a much preferred location for the plane as it is closer to SLCS and ZAWA for operations, closer to the area of activity and will not incur additional costs such as landing fees, departure tax and parking fees. It is anticipated that with aerial support, anti-poaching operations will be enhanced and illegal activities inside the park will be curtailed further. In addition, the research activities of the Zambia Carnivore Program will be supported.



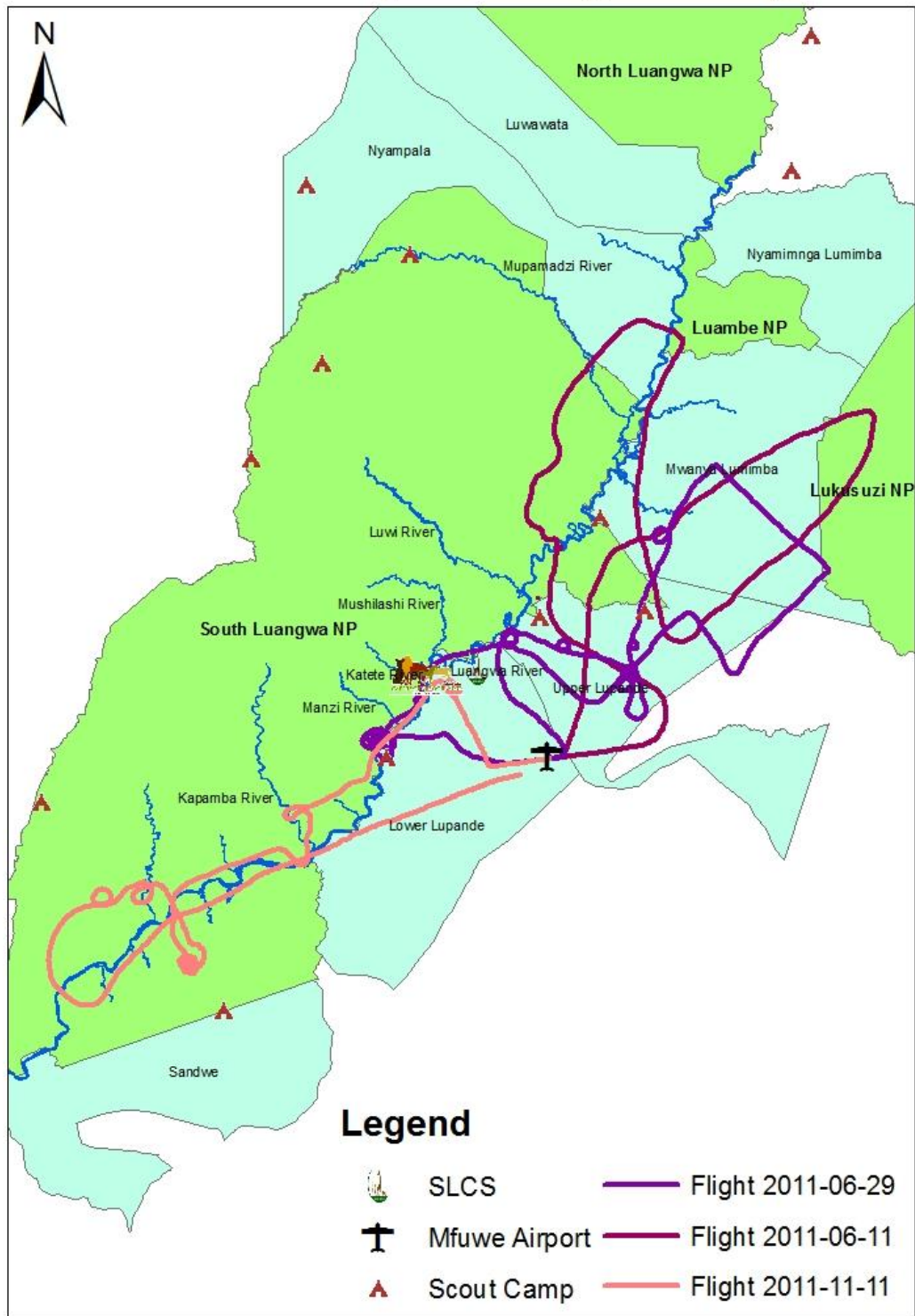
Fig.7. Elephant carcass detected from the air



Fig.8. Illegal fire detected from the air



# Aerial surveys in Luangwa Valley



## **Veterinary and rehabilitation support**

### **Darting and treatment of snared animals**

The SLCS darting and rehabilitation program assists ZAWA with immobilizing and treating snared and injured animals in the national park and surrounding game management areas. To date the countless number of animals that have been rescued from snares and other man inflicted injuries has contributed significantly to their welfare. SLCS receives regular call outs and conducts all rescue and darting operations with a ZAWA scout and staff member from the research department. The number of snared animals reported to SLCS and ZAWA is steadily increasing every year.

In 2011 the following animals were immobilized and treated; immobilized 25 elephants to treat 12 snared elephants, immobilized 2 snared giraffe, 2 snared puku and 4 snared lions. In addition two elephants were euthanized for humane reasons and seven rescued from the mud.

### **Refresher chemical immobilization course, Zimbabwe**



The CEO attended a refresher wildlife chemical immobilization course held at Malilangwe in Zimbabwe in order to maintain her registration with the Department of Veterinary and Livestock services in Zambia to be able to continue to conduct such activities, and at the same time to keep up to date with the latest drugs, drug combinations and immobilizing techniques.

### **Understanding and assessing snaring trends in Luangwa**

Overall poaching of elephants in South Luangwa from 2005 to 2010 has increased by 32% (elephant mortalities data from SLCS and ZAWA 2005-2010). In addition to ongoing ivory and meat poaching through illegal hunting using homemade muzzle loading guns and other firearms, a very real and growing threat exists in the form of wire snaring. Unfortunately meat poaching in the form of wire-snaring continues to have significant negative impacts on wildlife populations and affects a wide range of species including elephants, through direct and “by-catch” mortality. Consequently snaring is a major threat to certain species in many areas throughout the region and efforts to reduce poaching, is of the utmost importance.

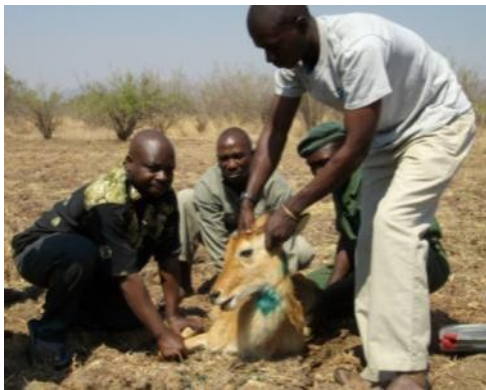
Whilst species such as elephant are not a target species through snaring, their wide-ranging behavior and tendency to roam in human populated farming areas likely increases their probability of encountering snares. The Luangwa's size, remoteness, and growing human population accompanied by inherent illegal activities, make anti-snaring and anti-poaching patrols critical to elephant protection.

While trends and patterns of snaring in the region are not clear, there are indications that snaring is higher in GMA's compared to protected areas and that these activities appear to be increasing. In order to understand snaring trends SLCS has partnered with the Zambia Carnivore Program through a combined effort of effective field conservation and research work.

SLCS and ZCP are also evaluating the success of anti-poaching efforts as well as trends and characteristics of snaring. Findings from this study will feed directly into the implementation of a long-term snaring monitoring program to detect changes in snaring intensity, distribution, characteristics, market demand, and other critical variables.



**Figs.10. A selection of snared animals immobilized, treated and who recovered in 2011**





## Community activities

### Mini marathon 2011 and anti-snaring campaigns

The SLCS mini marathon / sports event has evolved in to an annual event that is growing each year. As a community activity the marathon is aimed at bringing together a somewhat divided community, giving a chance for different community sectors to come together to enjoy a sports day with a conservation theme. The 2011 FUN RUN DAY turned out to be the busiest and most event filled day in our three years of hosting this event so far. With close to two hundred people participating in the 10km marathon and well over a thousand people during the day participating in sports events and supporting their teams, it was a successful day. Marathon runners came from different Chiefdoms in our area and volleyball and netball teams travelled from Chipata to compete with teams from Mfuwe. For weeks before the event, SLCS used a local professional drama group called SEKA to conduct conservation awareness campaigns in six different Chiefdoms surrounding the South Luangwa National Park. Drama sensitization and education programs also took place in local schools and popular meeting points to highlight the negative effects of snaring on wildlife which in turn will affect everyone living in Luangwa.



Fig.11. SLCS Mini marathon / sports event 2011

### Human elephant conflict mitigation program

Human elephant conflict in Upper and Lower Lupande Game Management Areas continue to escalate in concert with increased human population expansion. Such conflict leads to economic losses and at times human fatalities, which in turn both result in increased elephant mortalities. Elephants are responsible for most of the human wildlife conflicts known in Luangwa. These conflicts may increase resistance to conservation activities as killing elephants in defense of crops is viewed as acceptable by farmers. Elephant conflict is exacerbated by increasing human competition for agricultural land in fertile alluvial areas and by increased poverty levels. Together these factors have pushed communities closer to the elephant travel routes and forage areas, resulting in an increasing frequency of human/animal interactions and crop depredation.



Fig 12. Poached elephant near a field possibly due to retaliation from crop raiding



Fig.13. Traditional grain store damaged by elephants

In order to mitigate these increasing conflicts, SLCS works with ZAWA, the CRB's and local communities in a three pronged approach;

1. Chilli mitigation methods – chilli blasting, burning and fencing
2. Construction of elephant safe grain storage facilities
3. Chilli farming

SLCS supports five 'Red Caps' (members of staff supported by our partner and donor Awely dedicated to human wildlife conflict mitigation) who work tirelessly within the communities by monitoring, evaluating and recording crop and property damage assessments. In addition to this the Red Caps also conduct training workshops on mitigation measures, provide materials and coordinate the SLCS chilli farming program.

In 2011 the SLCS HWC department in conjunction with ZAWA, Kakumbi, Nsefu and Mkhanya CRB's have conducted the following activities;

- 4 chilli fence workshops
- 1 x 2 day chilli blasting workshop for 35 local based hunters
- 10 human wildlife injuries assessed
- 75 property damages assessed
- 294 crop raiding assessed
- 120 farmers have signed contracts for 2012 chilli farming season and chilli will be purchased at \$2 per kg to farmers using mitigation measures on crops
- Constructed and funded 58 elephant safe grain stores in different villages
- Sponsors and coordinates the activities of 18 human wildlife conflict mitigation chilli blasters in communities for 5 months of the year.



Fig.14. Traditional unsafe grain store



Fig .14. New improved safe storage



The village scouts who work collectively with local based hunters supported by SLCS, implement the chilli blasting program as a means of reducing human elephant conflict and are a key component to our elephant conservation efforts. The presence and activity of village scouts patrolling the buffer zones of the national park and also inside the national park is vital in combating the current levels of poaching and preventing any further increase in elephant mortalities. SLCS works in partnership with the CRB's, ZAWA and WCS on the chilli blasting program. During the 2012 farming season SLCS is supporting the salaries of eighteen local based hunters in Kakumbi, Nsefu and Mkhanya Chiefdoms. SLCS provides equipment in terms of rations, overalls, rain coats, torches and rain boots to all local based hunters.

SLCS would like to thank the International Elephant Foundation for their support to elephant conservation work in South Luangwa in 2011.

Report prepared by;

Rachel McRobb, CEO, SLCS

12<sup>th</sup> April 2012.

Budget item	Amount spent from IEF	Matching funds secured	Balance required	Total project costs US\$
<b>Project personnel</b>				
32 scouts salaries x \$120pm x 12 months	nil	46,080 – Tour operators, ZCP, CCG Trust, LCCF	nil	46,080
<b>Travel expenses</b>	nil		nil	nil
<b>Lodging &amp; meals</b>	nil		nil	nil
<b>Equipment</b>				
Vehicle maintenance and servicing (oils, lubricants and spares) @\$850 pm x 12 months (Covered by Tour Operators)		10,200 – LCCF, PDC, USFWS	nil	10,200
Off road tyres x 12 @ 222ec	888	1766 PDC	nil	2654
<b>Supplies</b>				
<b>Services</b>				
Fly camps x 4 per month x 7 @ \$711	nil	17,570 USFWS, Wilderness Trust, Lion Camp, Shenton Safaris, Kapani Lodge		17,570
Long field patrols x 4 per month x 12 @ \$205 ea	4920 for 24 long patrols	\$5280 (Mfuwe Lodge)	nil	10,200
Short patrols x 6 per month x 12 @ \$136	2248 for 16 short patrols	7344 Perth Zoo (confirmed), Africom (confirmed), Columbus Zoo (pending).	nil	9592
Day patrols x 15 per month a 12 @ \$35	1575 for 45 day patrols	\$4725 – Perth Zoo (confirmed), Africom (confirmed) Columbus Zoo (pending),	nil	6300
<b>Miscellaneous</b>				
Aerial support @ 120 per hour x 6 hrs pm x 12 months	2160	6480 (ZCP, Wilderness Trust, Mfuwe Lodge)	nil	8640
Human elephant conflict mitigation project (materials, workshops, phone credits, posters, fuel etc)	nil	\$8000 Awely	nil	8000
Mini – marathon and anti-snaring campaign	700	\$1300 (Tour operators Luangwa, confirmed), \$3000 (Columbus Zoo pending)	nil	5000
<b>Grand Total</b>	<b>\$12,491</b>	<b>\$111,745</b>	<b>\$0.00</b>	<b>\$124,236</b>