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MID-TERM REPORT
USFWS – AFRICAN ELEPHANT CONSERVATION FUND

Securing the Tutu Basin Elephant Population

Assistance Award Agreement #96200-1-G284
U.S. Fish and Wildlife Service

Lukuru Wildlife Research Foundation, Inc.

Project Director: Dr. Terese B. Hart

Start date: August 2011
End date: January 2013

This report covers August 2011through May 2012

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Executive summary

The remaining elephants of DR Congo continue to be pursued despite the fact that all herds are greatly diminished from successive waves of poaching over the last two decades. Only six core populations remain where core is defined as at least 500 elephants in an intact range of at least 5000 km^2 (see list of sites in Annex 1). All of these are under continuous poaching pressure, with current densities well below carrying capacity. The elephants of the Tshuapa-Lomami- Lualaba landscape (TL2) in central Congo are among these critically reduced core groups. Although now concentrated in 1500 km^2, there is more than14,000 km^2 of forest without human habitation into which they could expand. This area is being proposed for protection.

The remaining TL2 elephants are centered in the north part of the landscape, in Orientale Province, and particularly in the basin of the Tutu, a tributary of the Lomami River. As poaching also is concentrated in this basin, we take a geographic focus to maximize elephant protection through:

1. greater knowledge of TL2 elephant numbers, movements and dispersal to allow better design of a long term elephant conservation strategy and
2. greater project presence, thus allowing a more rapid perception of elephant poaching and a more rapid response.

The TL2 elephant population is one of DR Congo's ideal opportunities for elephant recovery. Although dispersed and depleted, its extensive range along the Lomami River basin remains undamaged and is and is not threatened by human immigration or mineral resource exploitation. Due to difficult access even logging is still far from becoming remunerative.

During the first eight months of this grant, we initiated the following activities, for which the details and impact are given in the following pages.
Greater Presence: We kept a working presence of multiple TL2 teams moving through the region to monitor elephants and mineral licks;
Improved Response: We facilitated the arrival of ICCN guards on the ground for temporary operations. Our collaboration with GFA/GIZ increased the effectiveness of their operations;
Increased Knowledge: We are conducting a re-census of the elephants of the Tutu basin; and monitoring their use their use of mineral licks, or edos. Because we have monitoring teams at lower density throughout the "recovery" zone we are able to detect unexpected movements of elephants into new areas as well.

Our early results show that although the elephants of the TL2 are no longer providers of large ivory hauls, poaching pressure persists even after security sweeps to eliminate poachers. There is no single chain of command, but rather a cobweb of illegal links. If we snip one or two strands, even important ones, the web still hangs. After a serious sweeping, poaching is reduced but the "spiders" will likely crawl back until more fundamental, long-lasting changes are made.

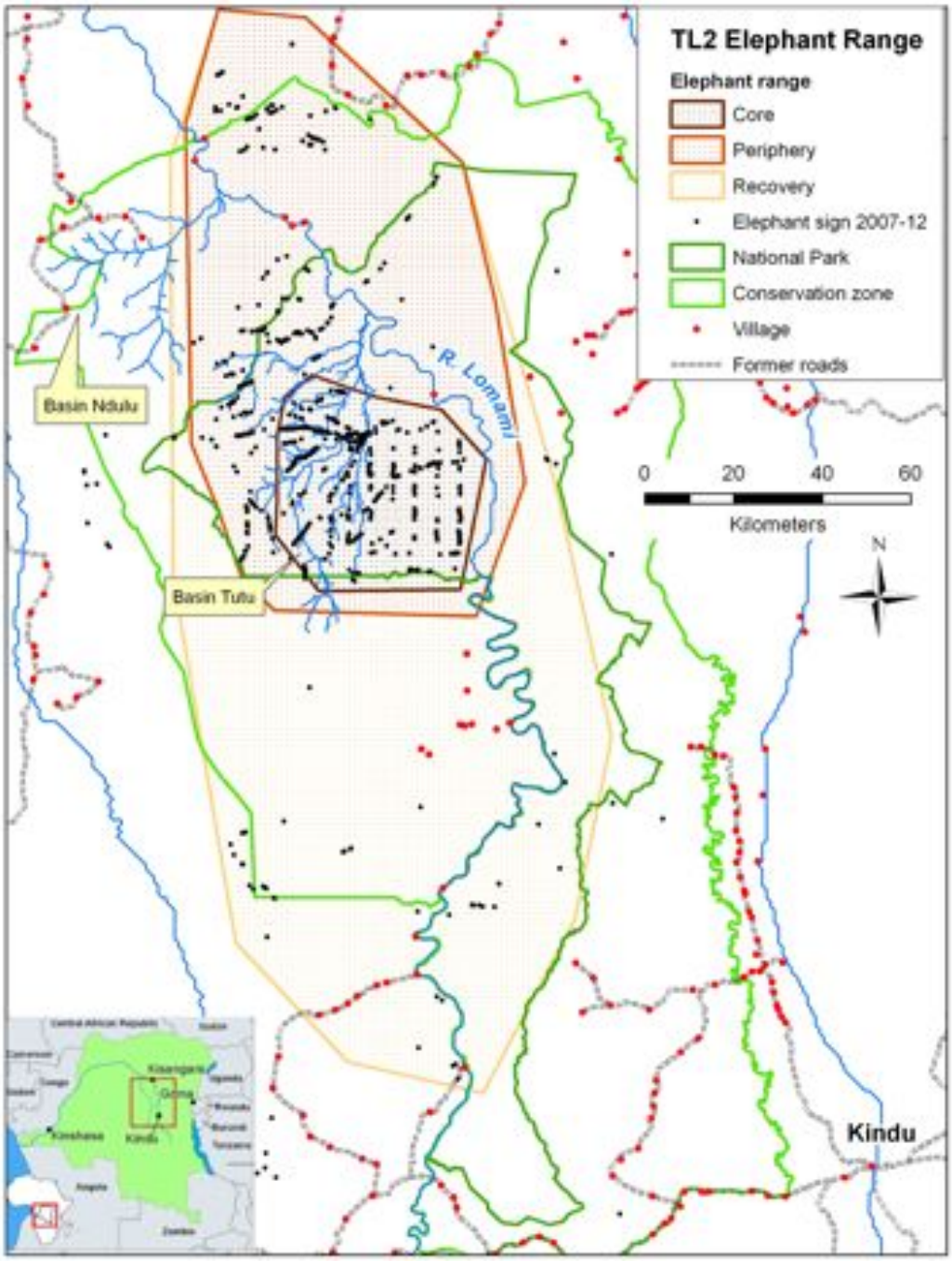


Figure 1. Current and Potential elephant distribution in the TL2 landscape. Includes information collected prior to this grant.

B. Longitude and Latitude coordinates

Most field activities associated with this grant are concentrated between 1˚ S and 1˚30' S latitude and between 24˚45' E and 25˚15' E longitude.

C. Description of Activities

Table 1. Primary activities to date. The locations referred to in the table are illustrated in figure 1 and figure 2.

Period	Field leaders	Objectives	Primary results
August – Sept 2011	J.Hart, Kibambe, Mpaka, Luison	• Training: Develop protocols for monitoring animal activity in clearings (bais, edos, "parcs") • Locate and survey clearings (edos) • Recce surveys in core (middle Tutu) and periphery (east bank Lomami)	• Location of fresh and older elephant kills. • Low use of edos by elephants • Several large zones of elephant use detected in core zone surveyed.
October 2011	Kibambe	• Recce surveys periphery (east bank Lomami	• Patchy dung encounters in sector covered.
November 2011	Ayali	• Recce surveys periphery (Ndulu basin)	• No elephant sign found
January 2012	Silegowa, Ayali	• Recce surveys core (lower Tutu and Ndulu basins)	• Low dung encounters • edos visited had little or no use by elephants, but are used by other species at low levels.
April 2012	Luison	• Survey clearings (second visit) • Recce surveys in Tutu core (upper Tutu)	• Low elephant use of edos • Patchy dung encounters in sector covered.
April-May 2012	J.Hart, Silegowa, Ayali	• Training: review of line transect dung count methodology • Dung count-transect survey Bloc E15 (900 km^2) • Analysis in collaboration with Rene Beyers	• Dung encounters and density estimates nearly 40 percent below 2008 results for same block. Indications that elephants shifted focus of activity so total decline may not be this high.
April-May 2012	T.Hart, Dino, Kibambe	• Training: Collecting and evaluating secondary source information on illegal activities. • Initiate information base on locations and activities of known poachers, and illegal killing.	• The TL2 elephant poaching web is beginning to emerge. Players and their connections identified. A minimum of 18 elephant kills occurred during the period Sept 2011- June 2012.
April 2012 - present	FARDC: Major Kolongo, TL2: Maga, Luison, ICCN: 12 guards, CdB ICCN Tshikaya	• Placement of ICCN guards at Obenge in the core range by FARDC Major Kolongo and ICCN regional coordinator, Paulin Tshikaya • Patrols of ICCN guards initiated in core and periphery guided by TL2 field staff	• TL2 field team leaders knowledgeable of site, accompany two patrol teams • Four patrols by mid-May • Two known elephant poachers arrested and transferred to Opala.

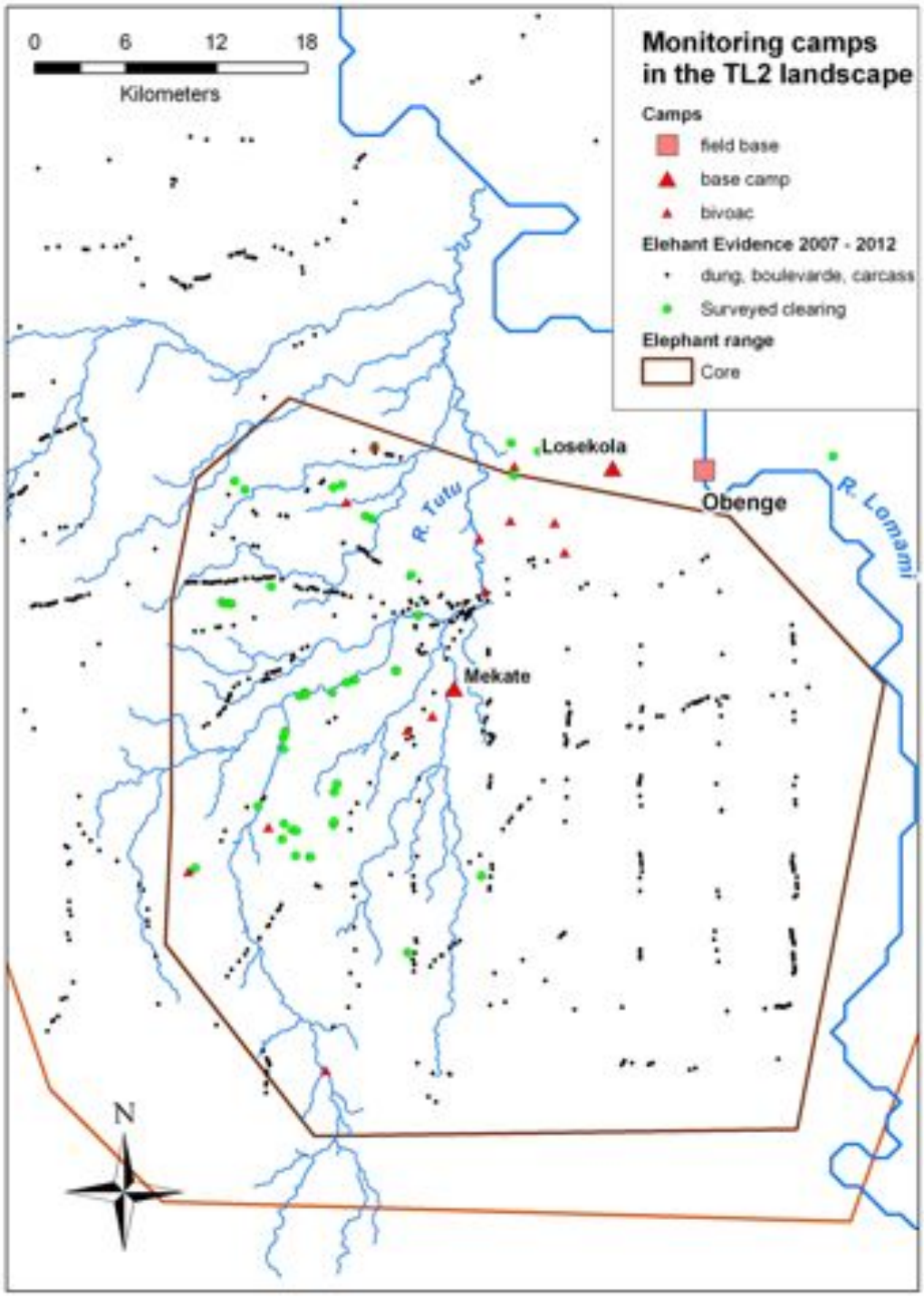


Figure 2. Field operations were conducted from the Field bases of Obenge and Yawende (latter not on this map) and the base camps of Losekola and Mekate as well as satellite bivouac camps.

The one-year objectives and associated activities over last six months:

1) Establish two camps in the Tutu basin

When writing the proposal we thought it would be desirable to establish two new camps in the Tutu basin to assure our continual presence. After assessment of the current elephant distribution and elephant use of the area, we have decided this has to be achieved by other methods. The elephants are too mobile and the area too vast to be covered by a few permanent camps. The first blocks surveyed show marked decreases in elephant number. Is this due to a scattering of elephants or a true reduction? In order to determine this we must cover more area rather than concentrate in just a few areas. Also elephants are not concentrated at edos or other identifiable locations making no particular place worthy of an investment in a permanent camp (Figure 2).

As a monitoring strategy, we are proposing a set of semi-permanent monitoring blocks, covering 400 – 900 km^2 that will cover key portions of the core and periphery and permit teams to effectively monitor elephants throughout the known areas where they occur. Each block now has five to six camp locations strategically located to permit easy access and supply. Some of these camps were established in an earlier phase of project work (2007-08), some recently. Several of the camps were also used as key bases by ICCN guards on recent patrols (Figure 2).

We are currently expanding one camp, Losekola, as a base to monitor the most important of the clearings and its surrounding forest. Losekola will either have a permanent or near-permanent presence. We have also reinforced our presence at Obenge field base. We intend to expand our activities east, at least with bivouac camps.

2) Maintain a regular field presence in and around the Tutu basin

Two full time survey and monitoring teams are dedicated to the elephant zone and have conducted transects, edo surveys and gathered information on poachers, their links and their activities. Experienced field workers/research assistants lead the teams. We had a brief re-training to update on current line transect methods and introduce the use of google earth to help locate clearings and edos. A more extensive training was undertaken to develop surveys in villages around the landscape, to determine locations and identity of poachers and to evaluate movements (Table 1).

In collaboration with GFA/GIZ we brought ICCN guards from Maiko National Park to the elephant zone to give increased protection. The TL2 project arranged their accompaniment to Obenge by Major Guy of FARDC who has worked with us on other occasions both in the TL2 landscape and in Bili Uere. Tl2 assured the guards' training (see below). The guards successfully arrested one of the poachers, Delli.

Table 2. Elephant poachers based in TL2 from mid 2011 to present.

Name (or sobriquet)	Affiliation	Bases	Elephants killed in last 12 months	Current status	Note
"Major" Ranger	Former Mai mai rebel commander	Ongwaina	8 - 10	At large	Arrested for elephant poaching in 2008 and imprisoned. Liberated in 2012, and currently circulating with an Ordre de mission signed by General Kifwa
"Colonel" Thoms	Former Mai mai rebel commander	Ngombe, Mukwara	At least one	At large	Arrested and "escaped" after 3 years in prison. Regularly seen by local authorities. Seen in May to give elephant meat to Chef de Collectivite Mituku Bamoya
Colonel Omari	FARDC company leader	Opala	at least 5	At large	Forced out of Opala by local population after implicated in killing of local man. Efforts by Territorial Administrator to have him arrested not yet successful.
"Colonel" Esende	Former Mai Mai and associate of arrested syncretic sect leader Prophet Olumbu	Yawende, Yakoko	None	Not in landscape	Current whereabouts unknown; possibly held by authorities for insurrection
Delli (see photos Annex 2)	Hunter for Col Esende	Yawende	At least one	Arrested by ICCN guards, May 2012	Reported to have 5 un-confiscated weapons. Operates in competition with Col Omari's gang.
Sadam	Hunter for Col Ranger	Ongwaina, Katondo	See Ranger above	At large	Accused of rape of local woman in Obenge
Obama (see photos Annex 2)	Hunter for Col Omari	Opala	See Omari above	At large	Civilian, but regularly carries AK in public and thought to be FARDC soldier; participated in arrest of a competing poacher, Delly (photo)

3) Survey and map the elephants in the Tutu basin and its periphery on a 5x5 km grid basis on two different occasions

The map (Figure 3) shows progress on our objective to survey and map elephants, although, as explained above we used a larger (10km X 10km) grid size than what was projected in the proposal. We propose that 2007-09 data set (rather than the current data) be used to represent the base line for the site, and that the current surveys (to be extended in upcoming months) constitute the basis for evaluating

change in distribution and relative abundance of elephants since the 2007-09 period. Further, rather than a 6 month re-evaluation (as proposed), we suggest that monitoring results be analyzed on an annual basis. Our final report will provide a design and justification for a TL2 elephant monitoring program.

The locations of edos (Figure 3) with degree of activity identify sensitive areas where wildlife gathers. There are numerous edos in the elephant area of concentration. So far we have identified more than 60 in the Tutu basin and surrounding area (Table 3). Interestingly, their use by elephants is always brief and few elephants at a time approach an edo. The temptation is to characterize their use as "furtive". The edos are more consistently used by buffalo, bongo, sitatunga and other species; all species that are not targets of poaching, at least at present. Hunters claim that elephants used these edos to a greater extent in the past, but we cannot characterize the extent or nature of the change.

Monitoring -- should be based on coverage of key blocks rather than focused on permanent fixed base camps, and should be developed on a 10 x 10 rather than 5 x 5 grid. This allows more efficient information gathering on this low density, highly mobile elephant population, which is currently not using its "traditional" clearings in a predictable manner, probably because of insecurity.

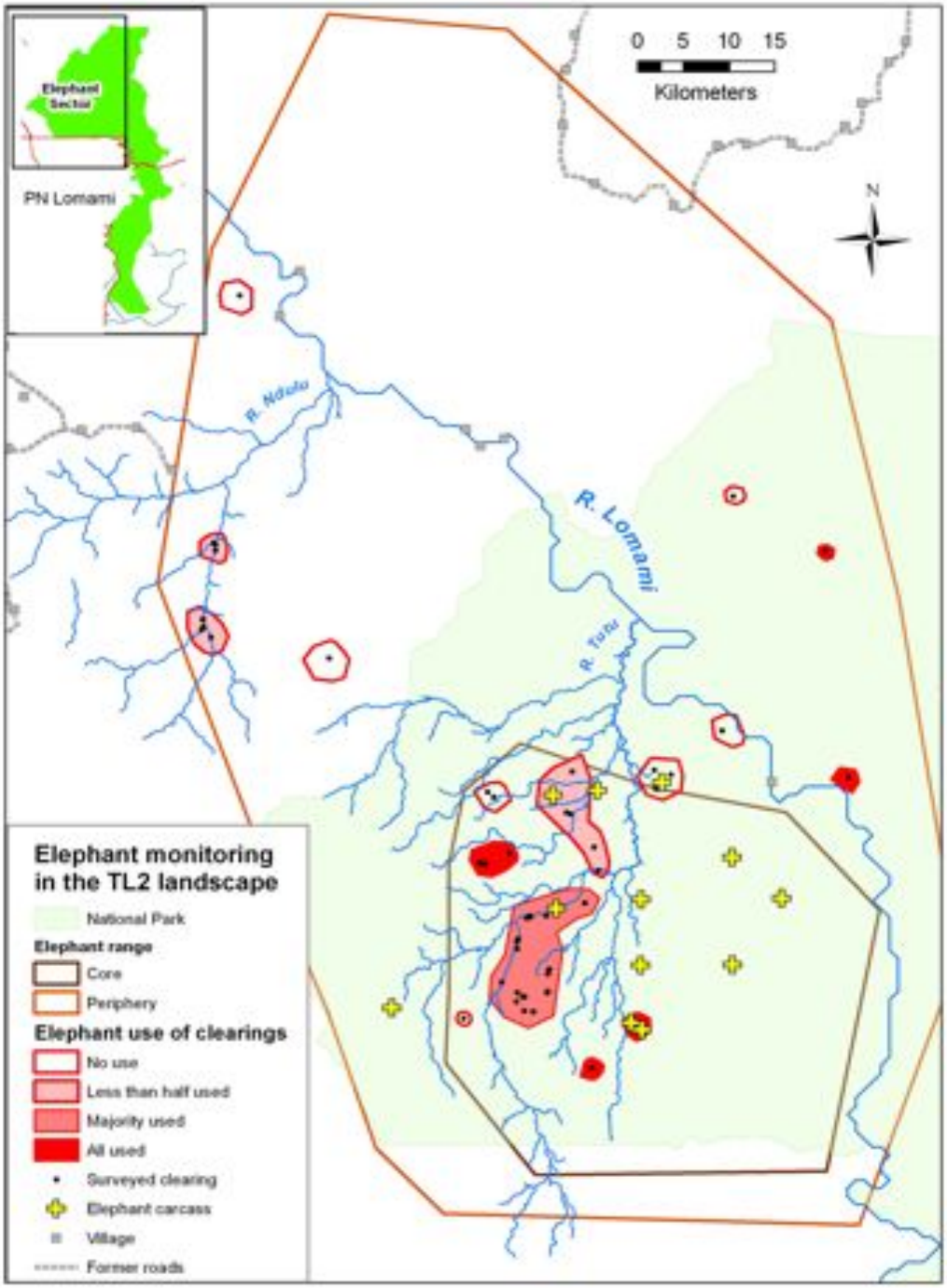


Figure 3. Clearing complexes in the Core and Peripheral Elephant Zones in the TL2 landscape showing locations of elephant carcasses and villages.

Table 3. Summary of Elephant Use of clearings in TL2 Landscape April 2011 – May 2012.

Clearing Complex	Survey dates	Sites surveyed	Active sites	Sites with elephant activity	Percent active sites with elephant sign
Aikongo	January 2012	1	1	0	0
Aitchiko	May 2011,January 2012	6	4	2	50
Mekate-Tutu	April 2011, September 2011, April 2012	30	15	10	67
Bloc E15	July 201, March 2012	2	2	2	100
Bloc E13	April 2012	2	2	1	50
Djonga Plateu	April 2011	1	1	0	0
Tutu West	January 2012	6	3	3	100
West Losekola	April 2011, April 2012	7	6	2	33
Owama	May 2011	5	5	1	20
Losekola Mosubku	April 2011, May 2011, March 2012	4	2	0	0
East Obenge	May 2011	1	1	1	100
Lotomo	January 2012	1	1	0	0
Tsuaka	January 2012	2	0	0	No data
TOTAL	**April 2011 - May 2012**	**68**	**43**	**22**	**51.1**

Comments on the clearing surveys:

- Elephants do use the clearing, and more often in the core zone than outside.
- Visits are brief and small numbers at any one time. Even just a single animal. They seem to be patrolling, checking out the clearings, They don't hang out there.
- One case of an elephant killing was found near a clearing. But we have no evidence of poachers stalking clearings. Not worth while probably.
- Other fauna use clearings regularly: buffalo, sitatunga, bongo have been seen or camera trapped. They are regular visitors, but not in large numbers and mostly at night.

D. Problems encountered and impact on objectives

1. The highly dispersed elephant population presents challenges for creating a monitoring program that produces valid and useful results. The large area is coupled with low elephant numbers and high mobility of the population. We are approaching this by developing a wide ranging reconnaissance (recce) system of surveys, anchored against systematic transect results. We will report on this in the final report.
Impact on objectives: Basing at two camps is less conducive to the coverage needed than circulating through many temporary camps (figure 2). This would change if elephant movements changed (or a new area was found) with a concentration of animals or specific openings with repeated and regular use. This, however, is not expected.

2. The poaching chain is highly complex, more like a web. Although we are building a substantial quantity of reliable information for the parks authority, ICCN, this is information about a dispersed group of actors who are individually involved in mainly low profile activities (supplying ammunition, offering a transport chain for elephant meat or ivory, etc.). Most of these individuals are connected only ephemerally. The goal is to remove the main armed poachers (table 2) who are known, but elusive. They operate independently of each other, and sometimes against each other as they are competing for a limited resource. We have had some success (see Delli, table 2), but the complexity of the web and the mobility of the main poachers, requires a sustained effort.
Impact on objectives: Our own field presence needs to be reinforced with matching and sustained law enforcement efforts by ICCN and probably, at least short term, by the army, FARDC. Although GFA/GIZ helped with a temporary transfer of guards from Maiko NP, this needs to be renewed. Also a new strategy is needed. One key element is how the funding will be handled. The money was given entirely to ICCN and they had trouble making good on what they were contracted to do due to the inaccessibility of the landscape. A complimentary strategy would be to cut off ammunition and supplies to poachers. This also needs an effective guard force. These are forward looking measures, but should be operationalized immediately.

E. Assessment of Project's Impact – (Desired impact)

Control of poachers – We have gained excellent information about the poachers operating in the landscape, but they mainly continue to operate unhampered. They have frequently shifting alliances and foci of activity. ICCN "shock" patrols (guards in and out) working in conjunction with TL2 have led to arrests (including one key poacher, Delli) and the retreat of other poachers. This was a successful collaboration with GFA/GIZ, but a more long-term approach is needed. Once a park is declared there will be the creation of a permanent guard force. We want to assure that at that time there will still be a viable population of elephants.

Training of survey teams – John Hart trained a limited group of people to accurately and reliably collect field information and report it as well as on how to enter their data into a computer program such that they are ready for analysis. This included long time staff (Crispin Kibambe, Luison Bakakunga, Ephrem Mpaka, Henri Silegowa, Dino S'hwa) as well as a new recruit, Pablo Ayali.

Training of guards – The TL2 field leaders trained ten guards in navigation and assisted in orienting their patrols.

Inventories throughout the elephant zone -- our goal is to survey the entire area of greatest elephant density. A first map (figure 1) is included here showing the area in question and progress made. We are working towards a reliable estimate of the size of the elephant population that will be saved in the Lomami National Park and surrounding Reserve.

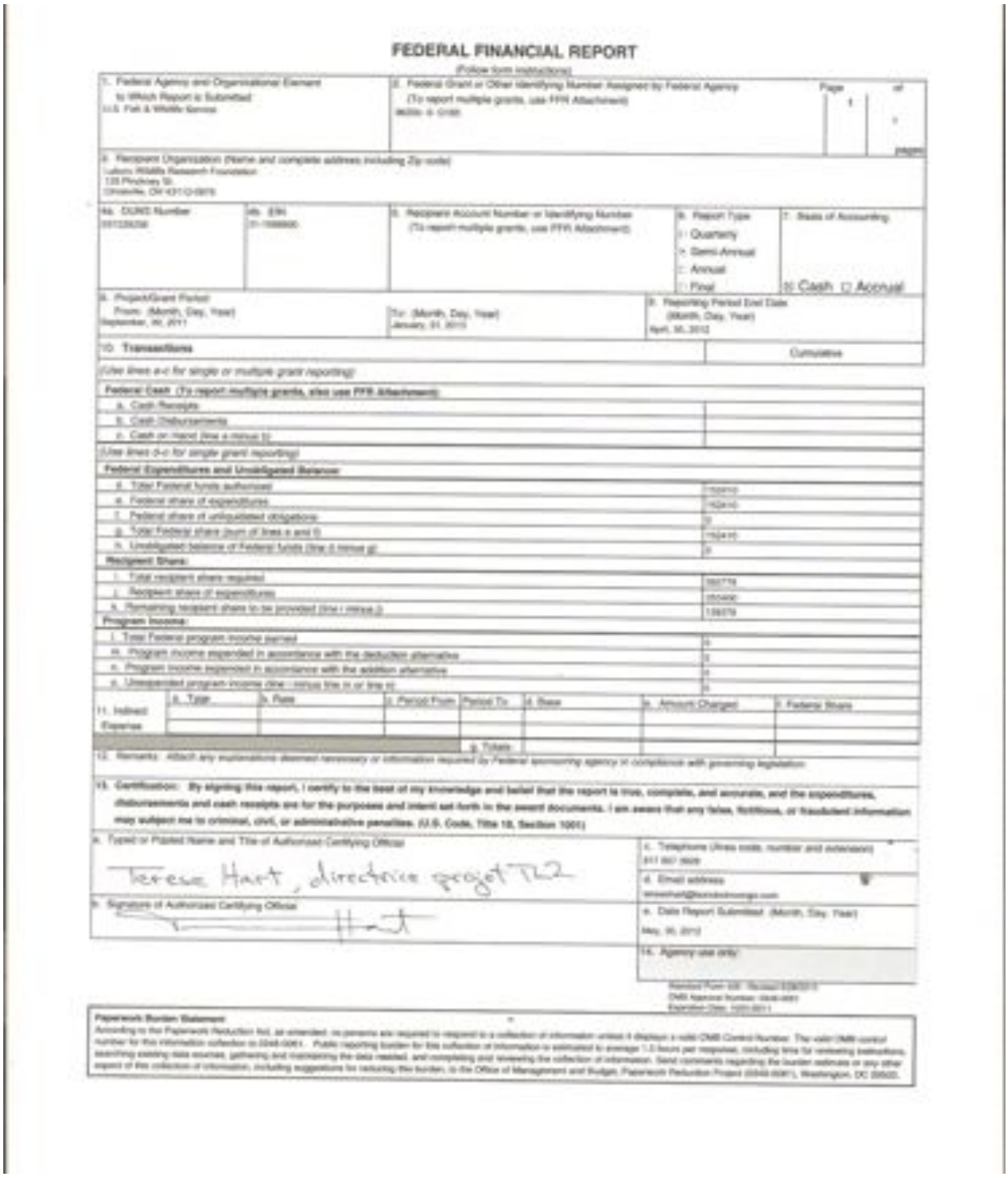
Animals protected – This project has been specifically effective in pushing back a wave of elephant poaching. In so doing it has brought greater protection to all the conservation targets of the TL2 landscape, and in particular those of the tutu basin: Bonobos, the new cercopithecus species, *C. lomamiensis*

F. Cooperation and Collaboration among organizations (FARDC and GFA/GIZ).

We collaborate with SOS Nature, a local NGO based in Kisangani. This has occurred in a number of ways. We have hired individuals from their staff, Robert Abani, for specific interventions. We have also divided operations and funding on a subvention from GFA to collect socio-economic data.

We cooperated with a Major Guy Kolongo in the FARDC (with permission of his General) who has been effective on TL2 missions previously.

Conclusion: Currently poaching is reducing the last remaining TL2 elephant herd, and reducing chances for recovery of this elephant landscape even as it moves to formal protection as a National Park and Reserve. Poaching may not be that difficult to stop: The costs of elephant hunting are high (finding and killing dispersed elephants is not easy) and returns are low. Thus, we have not documented the direct and active implication of politicians and high ranking military (though laissez faire is evident among authorities at all levels). On the other hand, the people that constitute the key connections in this poaching web are criminal elements who continue to hide in remote forest. Additional deterrence is needed in the form of a small, permanent and mobile guard force supported by accurate and timely information from monitors. A strategy is needed to stop the flow of arms and ammunition and to ensure that arrested poachers stay out of circulation.



FEDERAL FINANCIAL REPORT

(Follow form instructions)

1. Federal Agency and Organizational Element to Which Report is Submitted: U.S. Fish & Wildlife Service	2. Federal Grant or Other Identifying Number Assigned by Federal Agency (To report multiple grants, use FFR Attachment): 96200- X-G008	Page: 1	of: 1 pages

3. Recipient Organization (Name and complete address including Zip code):
Loxton Wildlife Research Foundation
135 Pinckney St.
Circleville, OH 43113-0978

4a. DUNS Number: 051339258	4b. EIN: 31-1568800	5. Recipient Account Number or Identifying Number (To report multiple grants, use FFR Attachment):	6. Report Type: ☐ Quarterly ☐ Semi-Annual ☐ Annual ☐ Final	7. Basis of Accounting: ☒ Cash ☐ Accrual

8. Project/Grant Period: From: (Month, Day, Year) September, 30, 2011	To: (Month, Day, Year) January, 31, 2013	9. Reporting Period End Date: (Month, Day, Year) April, 30, 2012

10. Transactions	Cumulative
(Use lines a-c for single or multiple grant reporting)	
Federal Cash (To report multiple grants, also use FFR Attachment):	
a. Cash Receipts	
b. Cash Disbursements	
c. Cash on Hand (line a minus b)	
(Use lines d-o for single grant reporting)	
Federal Expenditures and Unobligated Balance:	
d. Total Federal funds authorized	175241
e. Federal share of expenditures	152410
f. Federal share of unliquidated obligations	0
g. Total Federal share (sum of lines e and f)	152410
h. Unobligated balance of Federal funds (line d minus g)	0
Recipient Share:	
i. Total recipient share required	58778
j. Recipient share of expenditures	55549
k. Remaining recipient share to be provided (line i minus j)	139378
Program Income:	
l. Total Federal program income earned	0
m. Program income expended in accordance with the deduction alternative	0
n. Program income expended in accordance with the addition alternative	0
o. Unexpended program income (line l minus line m or line n)	0

11. Indirect Expense	a. Type	b. Rate	c. Period From	Period To	d. Base	e. Amount Charged	f. Federal Share
				g. Totals:			

12. Remarks: Attach any explanations deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation:

13. Certification: **By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and intent set forth in the award documents. I am aware that any false, fictitious, or fraudulent information may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

a. Typed or Printed Name and Title of Authorized Certifying Official: Teresa Hart, directrice projet TL2	c. Telephone (Area code, number and extension): 911 867 5309
b. Signature of Authorized Certifying Official: Hart	d. Email address: teresahart@loxtonwildresearch.com
	e. Date Report Submitted: (Month, Day, Year) May, 30, 2012
	14. Agency use only:

Standard Form 425 - Revised 10/2/2012
OMB Approval Number: 0348-0061
Expiration Date: 10/31/2012

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Detailed accounting showing partners contributions can be sent now if requested. In any case it will be included in the final report.

ANNEX I. Core Elephant Sites in DRCongo
Estimate based on best information available in 2010 ; poaching information current.

Region or Protected area	Population estimate		Poaching / Poachers	Habitat
	minimum	maximum		
Bili-Gangu, core zone	500	1500	High and increasing / DR Congolese military, police and officials	Forest
Garamba & domaines de chasse	3000	5000	Very high / DR Congolese military and unidentified well equipped poachers, probably cross border,	Forest/ savanna
Okapi	2500	4000	Very high and increasing / involvement of DR Congolese military	Forest
Maiko	1000	2500	High / Little information but apparently constant pressure	Forest
TL2	300	750	Medium sometimes high/ Military and mayimayi	Forest
Salonga and buffer	2000	4000	High. Military linked poaching	Forest

Annex 2 _Photos from the field

Delli, in blue shirt, in a 2009 picture – He is the poacher who has been arrested

Obama, in white t-shirt, back row, an informer for the arrest of Delli, but himself part of the poaching web….

An active Edo with a small amount of elephant activity a month ago. Used mainly by buffalo.

A clearing with almost no current activity. Waiting for elephants to return?