SALONGA NATIONAL PARK

DEMOCRATIC REPUBLIC OF CONGO

TERRESTRIAL WILDLIFE AND HUMAN IMPACT MONITORING PROGRAMME

MISSION REPORT

FIONA MAISELS

WCS

MARCH 2008

EVALUATION OF EXISTING BIOMONITORING STAFF

REFRESHER COURSE FOR EXISTING BIOMONITORING STAFF

INTRODUCTORY TRAINING IN BIOMONITORING FOR LOCAL COMMUNIUTY REPRESENTATIVES

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Objectives

The objectives of this part of the mission were:

- To evaluate the capacity of WCS Salonga biomonitoring staff in general (theoretical, technical, organisational and reporting aspects) and make recommendations for their improvement;
- To carry out a short refresher course for the WCS Salonga Monitoring team members, both for their own benefit, and to build their capacity as trainers for new biomonitoring staff;
- To give an introductory course in the basics of biomonitoring to local community representatives who would accompany the WCS biomonitoring team in the Salonga Corridor (buffer zone between the North and South sectors of the Park.

1 Introduction : Corridor Surveys, 2008

The Salonga Corridor covers over 10,000 km^2, and comprises all the land belonging to local communities between the two sectors (north and south) of the Salonga National Park (Fig. 1). Large numbers of people live in villages especially in the northern section of the Corridor.

Most of the Salonga National Park itself, plus a small portion of the Southern Corridor where there were virtually no villages, had been surveyed by the end of 2006 (MIKE 2005, Hart et al 2006. The remaining section (the corridor) was to be done in 2007-2008. A survey design had been drawn up in 2007 using the DISTANCE programme (Thomas *et al.* 2006) consisting of about 740km of recces; arranged in zig-zags through the eastern part of the Park and the length of the corridor (Fig. 1). Of this, about 290km had already been done by December 2007. (Bonyenge *et al*. 2008, Nkumu & Naky 2008); (Fig. 1).

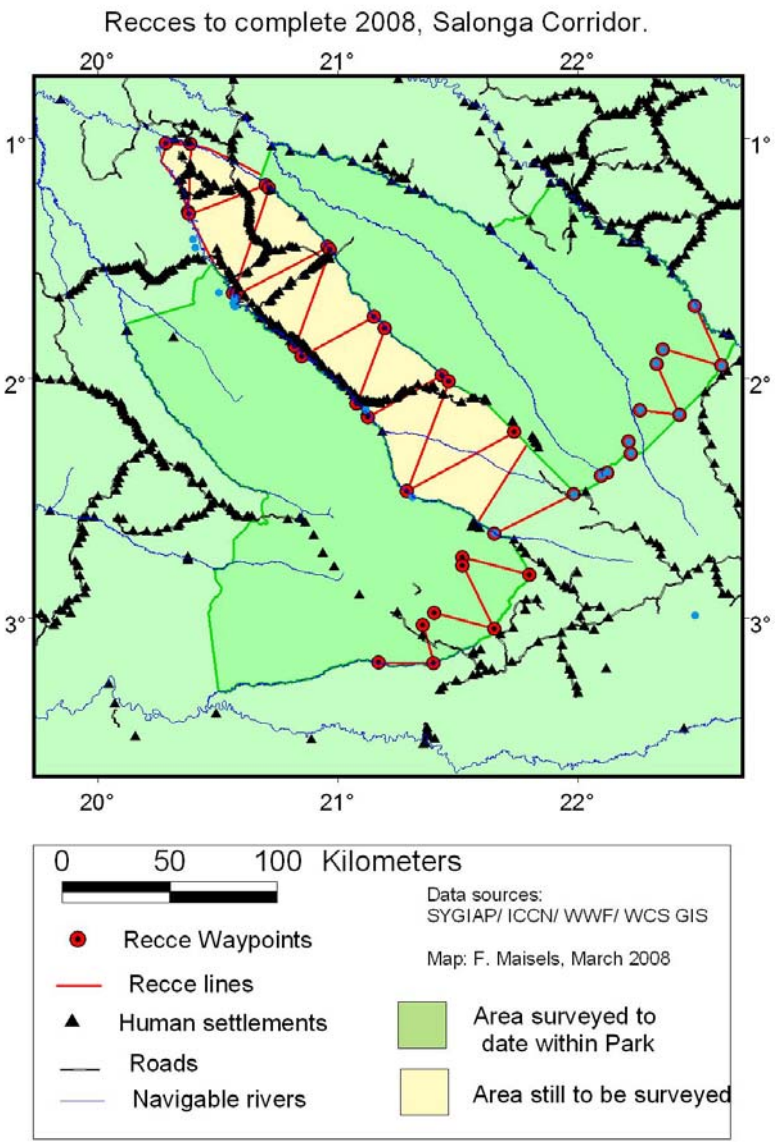

Fig. 1. Salonga National Park (northern and southern sectors), the area still to be surveyed in 2008 (beige) and the sampling design of recce lines 2007-2008.

It had been agreed by the Salonga CBFP partners that the survey of the Corridor should be carried out by the two existing WCS biomonitoring teams, with local community representatives, preferably those active in the existing local conservation NGOs, integrated into the teams. These community members should be trained in biomonitoring methods and, importantly, the meaning of the data collected, so that they understand the implications of the results for their natural resource base and for the

future of the communities themselves. A training session was thus planned for March 2008, where eight community members fitting the profile “Accepted by, and representative of, their locality/ Member of, and active in, a local conservation NGO/ Education of at least secondary school level or higher/ Knowledgeable about the forest” would be trained in biomonitoring methods.

The existing biomonitoring staff had been trained partly by the MIKE program and partly by WCS in 2004-2005. An evaluation of their capacities and training needs was first required.

The remaining Biomonitoring staff members were:

Bonyenge, Aime (Team leader, WCS Salonga). University graduate (biology).
Nkumu, Pele (Team leader, WCS Salonga). High school graduate with at least a year’s University afterwards.
Naky, Pascal (Assistant team leader, WCS Salonga). High school graduate.

An initial meeting with the remaining three people who had been on the 2007 surveys revealed that they had a good and accurate knowledge of field procedures, but had received virtually no further instruction in the post-data collection process. A little later on I saw the reports that the two team leaders had produced, in longhand, and which were good, careful, and accurate (Bonyenge *et al*. 2008, Nkumu & Naky 2008).

In addition their team management, logistical and trip planning skills were good.

Training needs were as follows:

GPS download.

During previous surveys, the biomonitoring team leaders had been expressly told not to try and download data in the field, but to leave it to the Salonga IMU coordinator. Thus, for example, they were unable to download any of the data from the 2007 mission. The team leaders from 2003-2004-2005 had all left WCS (either to join WWF

or to the new John/ Therese Hart teams in the East of the country, leaving WCS Salonga with only two team leaders who had been assistant team leaders in the past).

Data entry and analysis.

Staff had never been asked to enter any data whatsoever in the past. Nor had they been asked to analyse data. As a result they had only the vaguest notion of Excel and although they understood very well the terms encounter rate and density, they did not know how to treat the data they had collected to obtain these estimates.

GIS knowledge.

As staff had only a vague notion of computer operation, they had never been shown how to make basic maps in ArcView.

2 Training course

The refresher course, with WCS biomonitoring staff and community members, as well as the two Kinshasa University trainees, consisted of the following modules:

- Why do wildlife and human impact monitoring? What does it mean?
- Navigation with map, compass and GPS;
- Recces in the forest using map, compass, and GPS, collecting standard human, animal, and vegetation data;
- Ecological camping ethics;
- GPS and camera downloading; file archiving
- Calculation of encounter rates of wildlife and human sign, by hand;
- Introduction to Excel (data entry and manipulation: WCS Biomonitoring staff only).
- Data archiving and file nomenclature

During the course, additional help was given by WCS personnel (the site manager, the biomonitoring staff, and the socio-economic staff) in translating into either Lingala or Kimongo, the local language, anything that local community members found difficult to understand in French. In fact, it was refreshing to see that all trainees, whether WCS or not, took pains to help each other to understand the content and implications of each subject covered- a good sign, as the teams will be in the forest for about six weeks together and will depend on each other for security and a good working atmosphere.

2.1 Why do wildlife and human impact monitoring? What does it mean?

Half a day was spent on this section. Trainees were shown importance, first, of the African humid forests in its global context, and, secondly, the importance of the forests of DRC in the African context. Finally, the global importance of Salonga National Park (second largest tropical forest Park on earth) and its African and national context (contains many species endemic to the left bank of the Congo River, potential importance for elephants, and sheer size) was presented.

Secondly, the meaning of “biomonitoring” in the context of following the status of important natural resources was discussed. Community representatives actually understood very well the need for this and several people produced examples such as: the fact that it was difficult to find enough fish these days, and that the size of individual fish had recently reduced. Another example was that it was hard to find edible caterpillars, anymore and another trainee mentioned that this was because the host tree (an *Entandrophragma* sp) had been overexploited by artisanal logging. A third example was that it was difficult to catch many terrestrial ungulates anymore without setting hundreds of snares- the trainee remembered when he was young that one had to set only a few snares very close to the village in order to capture a duiker or wild pig. Finally one of the local ONG trainees remembered that when he was young, elephants used to come close to the villages, but that this no longer happened, and that instead it was extremely difficult to find elephants anymore. The WCS biomonitoring staff explained the meaning of “monitoring” in the conservation sense (repeated, standardised surveys that are designed to detect change in key features in the environment). All trainees

understood this well. The reason for, particularly, the disappearance of elephants from the African forest was explained (the ivory market, especially, nowadays, in China).

Finally, the idea of standardisation was introduced. It was stressed that the methodology used was that used not only in Central African forests but also for the MIKE program even in Asia. The need for comparison between different monitoring cycles at any given site over time, and also the need for cross-site comparisons, was explained and everyone understood well.

2.2 Navigation with map, compass and GPS

The afternoon session was designed to explore trainees' experience with, and understanding of, map and compass. Only the WCS Biomonitoring team and some of the Socioeconomic team had previous experience with compasses. None of the community representatives had worked in logging companies where they might have come into contact with maps and compasses, so all this section was new to them. They had all learned the cardinal points at school, and had basic knowledge of what a map was, but due to the lack of practical experience, had no in-depth understanding of these tools. A short presentation on maps in general and how they are constructed was followed by a practical session on introduction to maps and compasses, measuring directions between known places on maps of the Salonga Corridor, where all trainees knew the village names and locations (Fig. 2).

Fig. 2. Trainees are introduced to the basics of map and compass in the classroom….

Fig. 3. ….and in the field, as they map the main streets of Monkoto.

The second day was spent actually using the compasses and the length of each person's stride to make scale maps of the streets of Monkoto (Fig. 3). This required people to count paces between set points, and to measure the bearing between them, and then to report these onto a map back at the base. Most people understood this exercise and by the end of the day everyone had a reasonable map of the main layout of the town centre, which is about two kilometres by one kilometre. This day was also spent explaining scale itself on maps, so that people understood how to calculate the distance between any two points on the Salonga corridor map, using the graphic scale printed on the maps themselves. The practical aspects of this were very clear, as the recce lines to be walked were printed on the maps, and people could see where they would be going, in which direction, and over what distances.

2.3 Recces in the forest using map, compass, and GPS, collecting standard human, animal, and vegetation data

The next five days were spent working out of an ICCN patrol post (Lokofa) just to the northwest of Monkoto on the left bank of the Luilaka River (Figs. 4, 5). This site is an old village (abandoned in 1970 at the creation of the Park) and has a mixture of habitats ranging from the seasonally flooded forest along the Luilaka itself, the secondary forests around the old village, patches of primary forest, and a nearby marsh forest along the Ngoum River a kilometre to the west of the patrol post.

Practice recces of between 100 metres and a kilometre were carried out each day. All trainees took field notes in the standardised manner (MIKE/ WCS) as they went along (Fig. 6), and all trainees had a chance to be either guide, compass bearer, first observer, and second observer. The work was done by splitting into two teams, each team with four community members, one WCS Biomonitoring team leader, WCS Biomonitoring assistant team leader and one University of Kinshasa trainee. I split my time equally between the teams so that I could help everyone and evaluate their capacities in the different tasks.

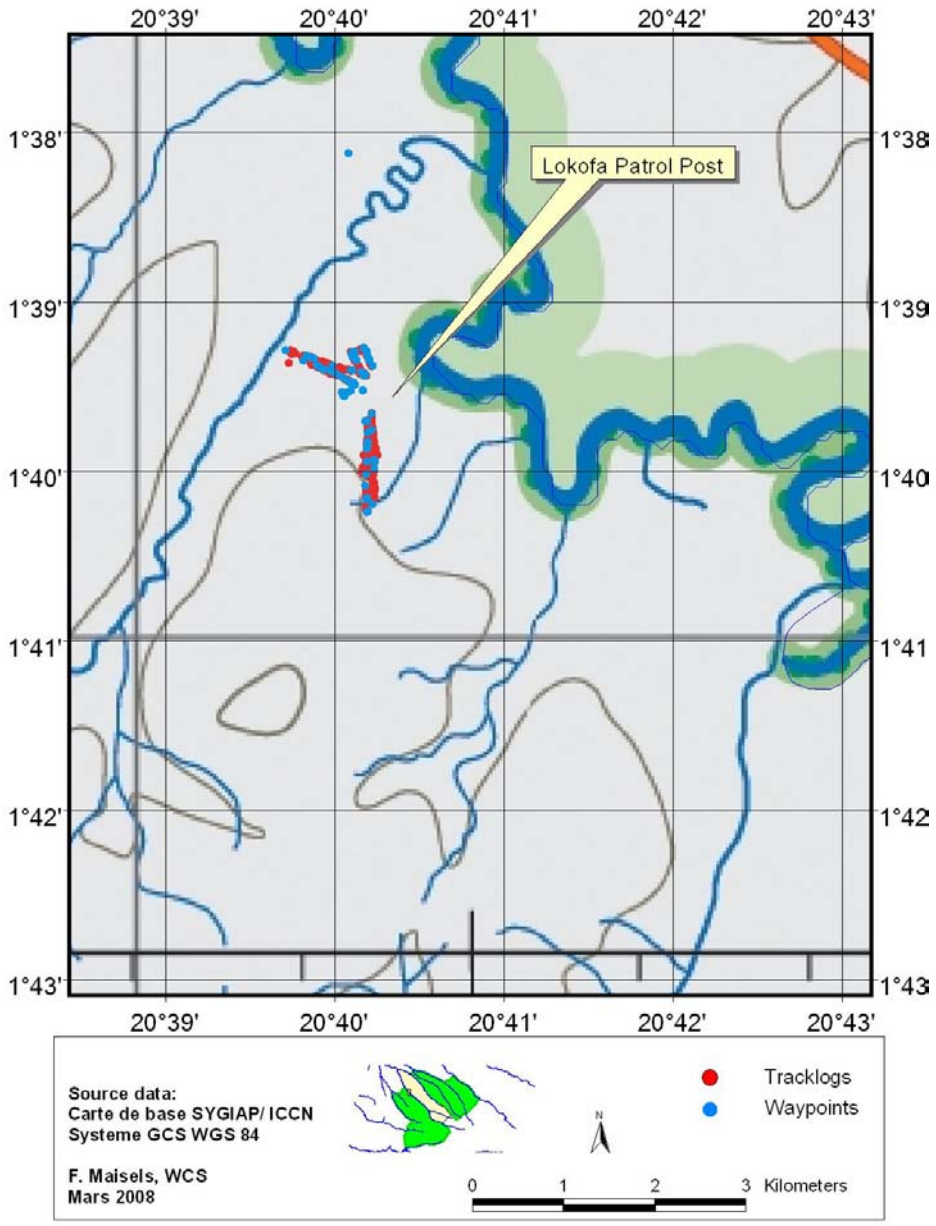

Fig. 4. Location of Lokofa Patrol Post, and some tracklogs and waypoints of the field exercises.

Fig. 5. Lokofa Patrol Post, and the tents used by the trainees.

Fig. 6. Pele Nkumu, WCS Biomonitoring Team Leader (left) and Pascal Naky, WCS Assistant Team Leader (right) with trainees.

The GPS was used at all times throughout the training and the last day was spent purely on manipulation of this tool (marking waypoints, navigation with GPS, GoTo, etc).

Each evening a small electric generator allowed enough light for the trainees to read and copy up their notes of the day. A small library of documents in duplicate had been brought on the trip (Azizet 2005, Inogwabini 2005, model of a mission report, maps of the immediate area around Lokofa…) which were available for consultation by the trainees. People took full advantage of these, reading and taking notes until the generator was shut off each night (at about 21:30- 22:00) (Fig. 7).

Fig. 7. Local community trainees take advantage of electric light and available documents to make notes on their training.

2.4 Ecological camping ethics

Two documents: « Ethics and Philosophy for Conservation » (Inogwabini 2005) and was printed and « Guide aux logistiques et de la navigation » (Azizet 2005) were distributed to the trainees (2 copies each). The subject of the first is self-evident; the second contains details of how to ensure the camp is not a danger for the environment which

we are trying to conserve, as well as a great deal of practical guidance for fieldwork. Because Lokofa was essentially a permanent post with “long drop” latrines, we did not need to dig latrines or organize a bathing place downstream of where drinking water is collected, but it was explained that this should be done in temporary overnight camps.

2.5 GPS and camera downloading; file archiving:

Back at Monkoto, the WCS Biomonitoring staff were shown how to download GPS data as text files using DNR Garmin (a program that is free on the Web) (Fig. 8).

Fig. 8. WCS biomonitoring team learn how to download GPS data.

Particular care was taken to instruct correct nomenclature and storage of the different types of data (tracklogs and waypoints) in different subfolders, and to ensure each tracklog is distinguishable from all others collected on the same day, but by a different

team or using a different GPS. Both team leaders downloaded several times and will practice more before the next mission in the Salonga Corridor, to ensure they have got it correct. Previously whilst in Kinshasa, the site manager was also taught how to use this program, and to then transform the data into Excel format.

The same procedure was carried out with camera downloading using the cable supplied.

2.6 Calculation of encounter rates of wildlife and human sign, by hand;

On return to Monkoto, to ensure that trainees would understand all the steps in initial data analysis (totals and calculation of encounter rate), they were asked to sum their data, by team (there were two field teams) for the following variables:

- Elephant dung
- Duiker dung
- Sitatunga dung
- Human sign
- Total number of kilometres covered during the field exercises

Then they were asked to calculate the encounter rates by team, and the encounter rates for the whole group. All the trainees but one understood this procedure at the end of the exercise. The results are below (Table 2)

Table 2. Number of, and encounter rates of, some wildlife and human indices in the forest around Lokofa, calculated by the trainees.

Team	Sign	No signs	Km walked	Encounter rate
1 (Aime)	Duiker dung	0	3.1	0.00
1 (Aime)	Elephant dung	7	3.1	2.26
1 (Aime)	Human sign	15	3.1	4.84
1 (Aime)	Sitatunga dung	2	3.1	0.65
2 (Pele)	Duiker dung	4	5.69	0.70
2 (Pele)	Elephant dung	9	5.69	1.58
2 (Pele)	Human sign	3	5.69	0.53
2 (Pele)	Sitatunga dung	0	5.69	0.00
Combined teams	**Duiker dung**	**4**	**8.79**	**0.46**
Combined teams	**Elephant dung**	**16**	**8.79**	**1.82**
Combined teams	**Human sign**	**18**	**8.79**	**2.05**
Combined teams	**Sitatunga dung**	**2**	**8.79**	**0.23**

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2.7 Introduction to Excel (data entry and manipulation: WCS Biomonitoring staff only).

The staff were firstly shown how data entry works: the waypoints arranged to the left of the spreadsheet and the headings then added (see example in Table 3). They were then shown Pivot Table. They already knew about Filter. They were given the task of entering all the data when the electric generator is running (every evening at the Monkoto WCS base 18:00-21:00).

Table 3. Example of a data sheet in Excel entered by the Biomonitoring team leaders.

WPT	dd lat	dd long	date	time	classe	sous-bois	espece	signe	age		Etcetera…
1	-2.67129	21.72722	28-Oct-07	06:59							
2	-2.65133	21.65546	28-Oct-07	08:09	riv						
3	-2.64663	21.65636	28-Oct-07	08:17	riv						
4	-2.64499	21.65694	28-Oct-07	09:50	village						
5	-2.64455	21.65729	28-Oct-07	09:58	JAC						
6	-2.64418	21.65869	28-Oct-07	10:03	JAC		homo	PS		3	
7	-2.64472	21.66038	28-Oct-07	10:08	Fmiix	arb	homo	PS		3	
8	-2.64447	21.66389	28-Oct-07	10:24	Fmiix	M	homo	Pnyl	actif		
9	-2.64534	21.66545	28-Oct-07	10:31	Fmiix	M	homo	Pnyl	actif		
10	-2.64620	21.66750	28-Oct-07	10:36	Fmiix	O	homo	Pcable	actif		
11	-2.64609	21.66781	28-Oct-07	10:39	FIS						
12	-2.64588	21.66852	28-Oct-07	10:43	FGD						
13	-2.64556	21.66942	28-Oct-07	10:48	Riv						
14	-2.64546	21.66968	28-Oct-07	10:50	Fmiix	arb					
15	-2.64501	21.67149	28-Oct-07	10:57	Fmiix	M					

The session ended with the Project manager, monitoring team leader and assistant monitoring team leader organising logistics for the completion of the surveys. Work will begin on or around mid-April 2008 and is expected to take about two months of field work. Data input is likely to take much more time than for teams in Cameroon, Congo-Brazzaville, or Gabon, due to the lack of previous training of field staff, but is a necessary step in the full development of the team leaders and their assistants.

2.8 Data archiving and file nomenclature

Biomonitoring staff were again shown how to store the images in separate subfolders corresponding to the camera number (A or B; there is a camera for each team).

In general staff were shown how to stock data according to the standard MIKE data structure (which is also that used throughout the monitoring programmes in Gabon, Cameroon, and the Republic of Congo).

Staff were shown the standard MIKE data storage template and instructed on how to maintain this (e.g. Fig. 9)

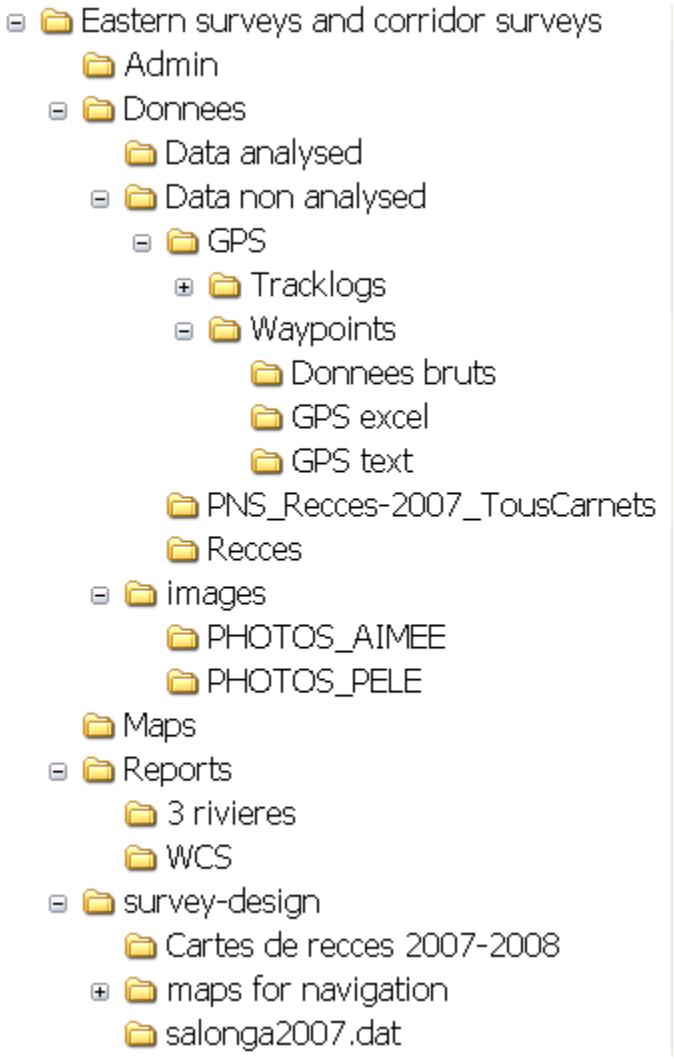

Fig. 9. The standard Mike/ WCS Central Africa data storage template.

2.9 Issuing of certificates

At the end of ten days a certificate was issued to all participants (Figs 10, 11).

BREVET DE FORMATION

Je soussigne, Dr. Fiona Maisels (Boo), Coordonnateur Régional de Biomonitoring pour le Wildlife Conservation Society (WCS) en Afrique Centrale, atteste par la présente que le nommé..... a suivi une formation de ..... jours en :

-Biomonitoring
-Cartographie
-Navigation
-GPS
-Pratique sur terrain de tous ces sujets.

Le présent brevet lui est délivré pour tenant lieu.

Fait à Monkoto, le 28 Mars 2008

Fig. 10. A "Brevet de formation" issued to all trainees….

Fig. 11. ….at Monkoto WCS Base.

3 Recommendations : training needs

3.1 Data entry

Both team leaders and assistant team leaders should receive training in basic Word and Excel. They have used computers only a little in the past and need considerable practice. They should also be reminded about data verification and checking shortcuts (Data Filter and Pivot Table) at the end of the last week of the current training (week ending 4th April) or as soon as the Project Manager can return to the site.

3.2 GIS

Staff should be properly trained in GIS, preferably either ArcView of ArcGIS. Then they will be able to:

- calculate the distances walked using GIS (they presently do it rather well using the GPS in the field)
- Make maps of their own missions;
- Make maps of planned missions;
- Eventually, carry out more sophisticated analysis and mapping (such as making interpolation maps).

All the Gabon, Congo, and Cameroon team leaders can do all of these except the latter; and many of them can do all these tasks.

3.3 Data analysis

Staff should be properly trained in the following aspects of data analysis:

- Calculation of mean encounter rates including 95% confidence limits;
- The interface between Excel and ArcView (or ArcGIS) so that these can be mapped (part of the procedure of making interpolation maps.
- Eventually, DISTANCE survey analysis.

Again, most of their colleagues in the three other countries can already do these (some cannot do DISTANCE yet).

3.4 Intensive training course

Aime Bonyenge, the most senior of the existing Salonga Biomonitoring staff, would greatly benefit from a longer training course, where he could learn not only some new techniques and skills, but also learn how to train other people. To this end, I recommend that he comes to the 2008 June-July-August Wildlife Monitoring and Training Course in Lope, Gabon. On return to Salonga he can then train his colleagues in the skills he has learned.

4 Recommendations : equipment

4.1 Field equipment and kit; maintenance

The training course showed that much of the existing equipment and field kit is in a poor state of repair and needs to be fixed or replaced. There is an issue with management and maintenance of kit and of maintaining a stock of equipment and consumables (Fig. 13). Monkoto is extremely far from the field and it can take weeks for both supplies and people to get there. A good supply of items should be kept in Monkoto itself and the supply replenished long BEFORE it runs out.

Most of the **tents** have no functional zips. An order was placed with the WCS Kinshasa office for more, and a local tailor should be able to replace them. Tents normally should be purchased every three years as they always receive very rugged treatment from field teams.

There appear to be very few **camping mattresses** in stock**.** These need either to be obtained from Forestry Suppliers (Ridge Rest are best, do not buy Therma Rest) or a

local alternative (thinn-ish foam mattresses) can be used until proper camping kit is obtained from the USA.

Fig. 13. Equipment and field notebooks drying out after a river trip.

The **GPS units,** although mostly functional (Garmin 12XL), are (i) significantly less good at capturing satellites than the newer Garmin 60cx, (ii) can take only 1024 trackpoints rather than the 10,000 available in the 60cx and (iii) do not, unlike the 60cx, provide any means of backup onto flashcards. I have taken two 12XL units from the Project to send them for repair in the USA (one has a screen which is entirely black and the other simply does not turn on). When the Project has some funding I strongly advise the purchase of a number of 60cx (Fig. 14).

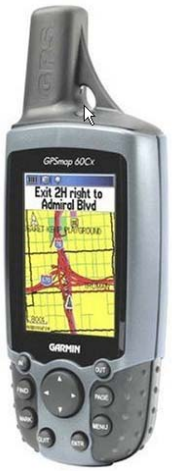

Fig. 14. A Garmin 60cx GPS.

Waterproof field notebooks (Rite-in-the-Rain) have completely run out and need to be ordered immediately from Forestry Suppliers (Fig. 15). I advise buying 50 or 100 yellow ones (for most field requirements) and 50 orange (water-resistant for use only in the dry season) and keeping them in the field stock supply at Monkoto. When the stock runs down to 20 of each I advise more be purchased and shipped to the field.

Fig. 15. Two types of rite-in-the-rain notebooks. Yellow in the rainy season, orange in the dry season. Yellow is better- totally waterproof- but expensive. Orange is sturdy but less waterproof.

AA Duracell batteries- there was no stock in the field. 200 had to be bought in Kinshasa for this training and 30 borrowed from WWF Monkoto. I advise that a further 300 should be purchased in Kinshasa and sent to the field, and that the storekeeper in Monkoto orders more every time the stock is down to 100.

4.1.1 Storage of electronic kit and batteries.

There is at present no provision for keeping cameras, computers, or batteries in a dry environment. The Project must purchase both larger storage Pelican cases for the laptops, cameras, hard drives and GPS units when they are not in use (overnight or for longer periods) PLUS smaller Pelicans (Fig. 16) for the field teams to carry their cameras and batteries in. Normally every laptop should have its own Pelican case both

for overnight storage and for transportation. AA batteries last a much longer time if they are stored in a dry environment. In addition several kilos of silica gel must be purchased and used in the Pelican cases to keep the kit dry. This MUST be dried out every two to three days in the field (where the Pelicans are opened daily), and every week for objects in Pelicans that are not opened for long periods. This is ESSENTIAL to keep the equipment from corroding and growing fungus inside (and thus keeping the considerable investment made in the kit).

Fig. 16. Small Pelican case for carrying batteries, camera, and GPS on field trips.

4.2 Office equipment and maintenance of kit

The Monitoring teams should have a permanently assigned laptop (preferably two, one for each team) for data entry and reporting PLUS two 500GB hard drives (each one containing BOTH teams' data (preferably LACIE metal case ones). The latter are pretty cheap these days and I advise the following model:

LaCie 500GB External Hi-Speed USB 2.0 Hard Drive - Mfr. Part **#:** 301103U, $118 retail at PCMall (WCS preferred supplier and this will be even cheaper using the WCS online CAP account).

4.2.1 Maintenance and backup.

Data should be backed up DAILY onto the hard drives (the easiest is by using one of the many available automatic backup programs such as Iomega Automatic backup). The hard drives should be stored **separately** from their computers (i.e. laptop in one place and the hard drive in a different place, preferably a different room or even building, in case of fire) during the night and when not in use, BOTH in Pelican cases with dry silica gel. As for field kit, the silica gel must be dried out every three days when the Pelican cases are being opened daily, especially in the wet season. Any other small electronic items (USB flash drives, flashcards, projectors etc) must also be kept in silica.

5 Acknowledgements

Thanks particularly to Guy Mbayma for his efforts in getting us to the field and in maintaining a good atmosphere both at the WCS base itself and within the community of Monkoto with the local community trainees.

The trainees are listed in Annex II and I would particularly like to thank biomonitoring team leaders Aime Bonyenge and Pele Nkumu, and their assistants Pascal Naky and Georges Lombombe. I hope the training they received will be built upon and disseminated throughout the WCS Salonga team in general.

In Kinshasa, thanks as ever to the great WCS DRC team Richard Tshombe, Robert Mwinyihali, Emmanuel Kayumba, Stephanie Bofua Longango, and also to Solange, Laurent, Paulin and Olondais for tireless logistics. Many thanks are also due to the WWF Park advisor Omari Ilambu and his Office Manager in Monkoto Lidjo Bolonga for mission advice and logistical help. In the WCS Mbandaka field office I thank both Huguette and Seraphim for logistics. Thanks to Heraclite Bikumbu, Rare Pride manager in Monkoto for help with equipment and computer issues. Also in Monkoto thanks to the whole WCS field base team of Charles, Mama Madu, Mama Alice, the boat drivers, and all the other field staff.

Finally very many thanks to the Salonga Landscape Leader, Lisa Steel (WWF) for her hospitality in Kinshasa and her encouragement and friendship.

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7 Annexes.

7.1 Annex I. Mission itinerary and activities

Date	Day	Subject	Location
2	Sun	Preparation mission	Libreville
3	Mon	Morning: WCS Gabon; admin tasks. Afternoon: Travel Libreville to Brazzaville	Brazzaville
4	Tue	Meeting with Patrick Boudjan (MIST)	Brazzaville
5	Wed	Travel to Kinshasa. Meeting with Robert Mwinyhali (Ituri workshop needs) and Guy Mbayma (Salonga mission).	Kinshasa (WCS DRC HQ)
6	Thu	Discuss Bonobo monitoring grant with Robert Mwinyhali, bushmeat study with Guy Mbayma. Download all GPS data and work on GIS with Guy Mbayma.	Kinshasa (WCS DRC HQ)
7	Fri	Meet Jean Bourgeais (ECOFAC). Meet Paya de Mercken for CARPE biodiversity shapefile standardization. Work with Robert Mwinyhali on standardization of Ituri shapefiles.	Kinshasa (WCS DRC HQ)
8	Sat	Finish Lessons Learned for CARPE	Kinshasa (WCS DRC HQ)
9	Sun	Travel to Mbandaka from Kinshasa with Project Director. Introductory meeting with Biomonitoring staff at WCS Mbandaka.	Kinshasa to Mbandaka with ASF. Lodged in hotel.
10	Mon	Receive Biomonitoring (handwritten) reports from project Director Mbayma. Travel to Monkoto; arrive mid-morning. Meet WCS and WWF Salonga (Monkoto) staff.	Mbandaka to Monkoto with ASF. (Salonga WCS HQ)
11	Tue	Transcription of handwritten reports of field teams. Creation of maps of fieldwork from GPS data.	Monkoto (Salonga WCS HQ)
12	Wed	Write Salonga Biomonitoring Strategy Draft	Monkoto (Salonga WCS HQ)
13	Thu	Finish Salonga Biomonitoring Strategy Draft and send to WCS, WWF, ZSM. Preparation of training materials for Monkoto trainees	Monkoto (Salonga WCS HQ)
14	Fri	Produce part of a Bai monitoring document for Salonga, circulate to WWF, Ecofac. Preparation of training materials for Monkoto trainees	Monkoto (Salonga WCS HQ)
15	Sat	Revise Park monitoring strategy in response to WWF suggestions.	Monkoto (Salonga WCS HQ)
16	Sun	Finalisation of training materials and review funding propositions made by site manager to Brit Embassy	Monkoto (Salonga WCS HQ)
17-18	Mon	Monitoring staff arrive at site. Training in GPS download and data entry.	Monkoto (Salonga WCS HQ).
19	Wed	Training for community members and others (see list below). Morning: What is monitoring? Afternoon: Maps (theory and practice)	Monkoto (Salonga WCS HQ).
20	Thu	Navigation with map and compass: making a map of Monkoto.	Monkoto (Salonga WCS HQ).
21-24	Fri	Field Training recces. Creation of maps for navigation for Corridor surveys	Lokofa Patrol Post, Salonga National Park (Southern Sector)
25	Tue	Field Training recces, return to Monkoto in evening	Lokofa Patrol Post, Salonga National Park (Southern Sector)
26	Wed	Map and compass, and GPS test for	Monkoto (Salonga WCS HQ)

		Biomonitoring team leaders. Downloading GPS training (DNR Garmin). Demonstration of tracklogs, waypoints mapping.	
27	Thu	Map and compass test for Biomonitoring Assistant Team leaders, and community representatives. Training in downloading digital camera data. Calculating encounter rates.	Monkoto (Salonga WCS HQ)
28	Fri	Morning: introduction to Excel data manipulation (filter, Pivot table) with Biomonitoring team leaders and Asst Team leaders. Travel to Mbandaka in afternoon. Start mission report.	Monkoto to Kinshasa
29	Sat	Mission report writing	Kinshasa (WCS DRC HQ)
30	Sun	Prepare shapefiles for CARPE biodiversity surveys?	Kinshasa (WCS DRC HQ)
31	Mon	Finish mission report.	Kinshasa (WCS DRC HQ)
APRIL			
1	Tue	Travel to Brazzaville. Meeting with WCS Congo.	Kinshasa – Brazzaville. (WCS Congo)
2	Wed	Travel to Gabon.	Return to Libreville.

7.2 Annex II. March 2008. Trainees, WCS Salonga, Introduction to Biomonitoring.

1. WCS Salonga Biomonitoring Team Trainees.

Bonyenge, Aime (Team leader, WCS Salonga)
Nkumu, Pele (Team leader, WCS Salonga)
Naky, Pascal (Assistant team leader, WCS Salonga)
Lombombe, Georges (Assistant team leader-in-training WCS Salonga)

2. Community Representative Trainees: Salonga Corridor Zone.

Bafuta Bolaa, Jado (Secteur Nongo)
Baluka Lokako, Dora (Secteur Nongo)
Bodzilo Isano, Giles (Secteur Bianga)
Nyame Bolakofo, Joseph (Toto) (ONG GACDI)
Eleki Botaka, Kennedy (Secteur Monkoto)
Manga Bofaya, Dema (Secteur Monkoto)
Mbenga Ndjale, Aubin (ONG CVPP/ AB)
Mputu Bombambo, Roger (Secteur Monkoto)

3. WCS Salonga Socioeconomic Team Trainees.

Itambala, Modeste (Team leader, WCS Salonga)
Gaby Koyama (Assistant Team leader, WCS Salonga)
Jeef Ikwange (Team leader, WCS Salonga)

4. University of Kinshasa trainees:

Ngoy Kibwila Michel (Ing. Agronome GRN/ F&F)
Nobusinapa Bolito Alfred (Ing. Agronome GRN/ F&F)