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**ANNUAL REPORT OF THE ACTIVITIES UNDERTAKEN BY THE  
WILD CHIMPANZEE FOUNDATION  
TO IMPROVE THE PROTECTION OF WILD CHIMPANZEES  
AND THEIR HABITAT IN WEST AFRICA**

**Year 2011**

**Reported by the WCF team**

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## **1. General conclusion and outlook for the year 2012**

**By the president of the Wild Chimpanzee Foundation (WCF) Christophe Boesch**

The Wild Chimpanzee Foundation's vision is to contribute to the survival of the remaining wild chimpanzee populations in Africa. To this end, the WCF first initiated its activities in Côte d'Ivoire but is now present in Guinea and in Liberia with strong and important programs. The WCF is also working to develop some solid scientific-evidence based conservation programs in Central Africa where still some important chimpanzee populations are present. The central challenge in Africa remains to find a sustainable balance between economic development and nature conservation, knowing that they have been shown in many studies to be too often antagonists. Therefore, the national park concept remains one of the strongest for long-term conservation and the WCF is working with national and local authorities to have them remain conservation success stories.

Sadly, the continuous threats on chimpanzees and its forested habitat in the whole of the African continent combined with the persistence of the world-wide financial crisis represent a huge challenge to all NGOs. Therefore, the WCF decided to remain focused on our priority, namely the "conservation of wild chimpanzee populations and its forested habitat", but at the same time the WCF is developing some multi-stakeholder approaches including more largely a "sustainable development"-philosophy. This is illustrated in first line by our collaborations both in Guinea and Liberia with the mining sector based on the international "biodiversity offset concept" that both limits negative impacts in mining concessions and compensate for remaining impacts so as to achieve net conservation gains. On the other side, the WCF is attempting to work with logging companies to implement and promote "sustainable extractive methods" that allow chimpanzee populations to survive on the long-term while permitting sustainable economic use of the forest.

The present 2011 activity report shows the WCF's achievements in trying to develop such a concept, and reveals that if the road is long and sometimes quite bumpy it leads to some very promising and exciting positive results.

## **2. Executive Summary**

The past year (2011) was a very difficult year for Côte d'Ivoire, due to the post-electoral crisis that ended in violence for the first months of the year and then lead to a stand still of the country for a period of 4 months. As such, work for both governmental and non-governmental organisations was difficult and at some times impossible to do. Nevertheless, the WCF team kept as much of a presence as it was possible during these difficult times, and was fully back up and running by June 2011. This crisis, though officially over by July 2011, did still have some repercussions on the activities foreseen.

In 2011, the WCF was working successfully in Liberia and Guinea, and despite the political situation, also in Cote d'Ivoire.

In 2011, the WCF **environmental education** program consisted of several multi-media awareness campaign tours (newsletter distribution, film, discussion rounds and theatre tours) **in Côte d'Ivoire, Guinea and Liberia**. The WCF created several education tools such as music CDs, posters and stickers. We continued environmental education in schools with the Club P.A.N. program, the partner-school project and in the Nature Centre in the Banco National Park (NP). Two full sociological studies have been completed at the end of 2011 in Côte d'Ivoire and Liberia.

The WCF continued the **bushmeat study in Côte d'Ivoire** and was able to follow the abundance of bushmeat selling on the local markets and in families.

The **micro-projects in Côte d'Ivoire** are ongoing with different status and achievement: fish, cane-rat and snail farms.

The WCF **eco-tourism projects in Côte d'Ivoire** had to slow down during the crisis, but the teams were fully working again in October 2011.

The WCF **biomonitoring and law enforcement programs** are undertaken, since 2005, by the WCF in Côte d'Ivoire, Guinea, Sierra Leone and Liberia. These programs and studies are underway in various sites including national parks, reserves, and classified forests and, at a nationwide scale, for assessing the wildlife potential of these heritages and to monitor the temporal trends while highlighting the different anthropogenic factors that affect them.

The WCF is cooperating with **sustainable extractive projects** by conducting biological evaluations for mining concessions such as the Guinea Aluminum Project in Guinea and the concession of Arcelor Mittal in Nimba / Liberia, and sustainable logging projects in classified forests of Cavally and Goin-Debe in Côte d'Ivoire. These activities imply that impacts of mining and logging activities are monitored, and in 2011, the spatial distribution and abundance of wild chimpanzees with the signs of human activities were investigated.

The implementation of the WCF programs and studies helps to optimize the conservation and management of natural resources in West Africa.

Detailed reports are available upon request for every mission we have carried out.

### **3. Overview of achievements**

#### **Environmental education**

- 12.245 people have seen the **theater play** about chimpanzees in Côte d'Ivoire, 2.546 in Guinea and 7.500 people in Liberia
- 7.000 French **newsletters** "Paroles de forêt" of the 11<sup>th</sup> issue were distributed in Côte d'Ivoire, 3.000 in Guinea and 7.000 English newsletters "Forest Wisdom" of the 11<sup>th</sup> issue in Liberia, we prepared the 12<sup>th</sup> issue of the newsletter which will be published in 2012
- 10.860 people watched the **chimpanzee film** and participated in **discussion rounds** in Côte d'Ivoire, 2.546 in Guinea and 5.870 in Liberia
- 570 children in 2010/2011 and 754 children in 2011/2012 visited **Club P.A.N.** in Côte d'Ivoire; 184 children in 2010/2011 and 289 children in 2011/2012 in Guinea, each year over 2.000 villagers and parents visited the "parents day" with the children explaining what they had learned
- we created a music CD with Ymako Teatri in Côte d'Ivoire and distributed 1.000 free copies, and we created and distributed **education materials** like posters and stickers
- together with the **Cellule des Projets Environnementaux (CPE) and the OIPR** in Côte d'Ivoire we held two "Nights of Conservation" visited by over 3.000 spectators, an interschool competition called Eco-Wozo-Taï (7.610 people), two radio programs called "Eco-citizen of the Taï NP" and two education days which mobilized more than 3.000 people from 17 villages to highlight the conservation issues in Côte d'Ivoire
- the **partner-school project between German and Ivorian schools** continued in 2011, the "Lessing-Schule Zwickau" raised 1000 Euros for the renovation of their partner school Ziriglo, the "Kepler-Schule Leipzig" raised 1080 Euros for their partner school Petit Tiémé, these partner schools regularly exchange hundreds of letters and gifts
- at the end of 2011 the **Nature Center in Banco NP in Abidjan**, Côte d'Ivoire was under renovation because it had been damaged during the crisis, before, it had been used in 2011 for 6 theater plays, 6 film presentations, teacher trainings and a ceremony with Ivorian ministries
- two external **sociological studies** have been completed in Côte d'Ivoire and Liberia, these studies found a 50% decrease of people stating to eat chimpanzee meat in the post-study, that 97.4 % of the interviewed people consider chimpanzees as totem and that 95% of the people say that they don't kill chimpanzees anymore

#### **Bushmeat study in Côte d'Ivoire**

- we collected data from 36 families and 54 restaurants in 3 cities and 9 villages, results show a clear change in the bushmeat consumption behavior of families that were taking part in the education activities; sensitized families eat fish relatively more frequently than meat compared to non-sensitized families within the same village

#### **Micro-projects in Côte d'Ivoire**

- 10 fish-farms under renovation in Côte d'Ivoire as alternative protein sources to bushmeat
- 3 cane-rat and 2 snail-farms are ongoing at 5 schools to learn farming and breeding techniques already in primary school

### **Eco-tourism projects in Côte d'Ivoire**

- the habituation of primates is ongoing and working well in Djouroutou and Taï
- a new full time eco-tourism coordinator was hired in October and is supervising all activities in Taï
- a habituation volunteer was hired and is working in Djouroutou
- a site was found for the hotel/lodge in Taï
- negotiations with all partners such as the OIPR are ongoing
- a biomonitoring and evaluation (sociological study) approach was developed for both sites

### **Biomonitoring and law enforcement**

- the WCF survey teams collected data on 459 km of transects in the Taï NP in **Côte d'Ivoire** and analyzed **animal population trends**
- data collection and analysis of animal population trends were done in 12 protected areas in **Guinea** with a total of 1109 km transects walked
- in **Liberia**, a nationwide **data collection** of chimpanzees through the Pan African Program was conducted
- **data collection** continued for the corridor project Sapo-Taï in the countries of **Liberia** and **Côte d'Ivoire**
- all WCF biomonitoring results about illegal human activities and animals signs were personally handed over to the local authorities: in **Côte d'Ivoire** to the Office Ivoirien des Parcs et Réserves, in **Liberia** to the Forestry Development Authority and in **Guinea** to the Direction Nationale des Aires Protégées et de la Biodiversité to be used in management plans, **and for strategic law enforcement and anti-poaching patrols**

### **Sustainable extractive projects**

- support to surveillance started again for the classified forests of Cavally and Goin-Debe in order to supervise these **sustainable logging projects in Côte d'Ivoire** and the analyses of radar images was launched to finalize the management plan for 2012
- biomonitoring data collection and analysis of animal population trends was ongoing for the **mining impact and offset** evaluation of the Concession of Arcelor Mittal in Nimba / **Liberia** and the Guinea Aluminum concession in **Guinea**

## **4. Environmental education**

### **4.1. Theater tours**

#### **4.1.1. Côte d'Ivoire**

The post-electoral crisis in Côte d'Ivoire had some impact on the WCF education program, though an effort was made once the security situation was stable to complete the full program.

Number of villages and people for the theatre performances in Côte d'Ivoire:

<b>National Park</b>	<b>Theater troupe</b>	<b>Villages</b>	<b>Spectators</b>
<b>Professional theatre groups</b>			
Taï NP	Ymako Teatri September- October 2011	Grabo, Ponan, Keibly, Goulégui Béoué, Ditroudra Béoué, Nounoubaye, Béoué, Niouldé, Mona = <b>9 villages</b>	3.700
Banco NP		Abobo Sagbé quartier Gouro, Andokoi An 2000 = <b>2 villages + 1 time in BNP</b>	1.450
<b>School theatre groups</b>			
Taï NP	EPP Grabo August 2011	Senéwaké, Petit-Bocanda, Déblabai, Négbatchi = <b>4 villages</b>	650
	EPP Djouroutou August 2011	Djouroutou, Néka (V0), Petit-Grabo, Poutou = <b>4 villages</b>	3.650
	EPP Wonséaly September 2011	Alexandrekro, Konankro, Lomokro, Pk15 = <b>4 villages</b>	1.400
	Lycée Taï December 2011	Kouassikro, Wètého, Gahably, Daobly = <b>4 villages</b>	830
Banco NP	EPP Agban Attié December 2011	Agban-Attié, Banco marché, Banco résidentiel, Bureau WCF = <b>3 villages + 1 at WCF office</b>	565
<b>TOTAL</b>		<b>32 times</b>	<b>12.245</b>



**In 2011, 32 theater performances about chimpanzees have been seen by 12.245 people in Côte d'Ivoire.**

**The WCF published about the successful theater tours in Boesch et al. 2008.**

#### 4.1.2. Liberia

In March 2011, a tour with the professional troupe “Eddie Theater Production” was organized in 7 towns: Tubmanville, Greenville, Fonieh’s Town, Chebio’s Town, New Town, Putu Pennoken and Putuken around Sapo NP and 3 towns: Jaytoken, River Gbeh and Kanweaken around Grebo NF. During the tour, **4.160 people** have seen the play.

The amateur theater tour with the Putu Jarwodee conservation awareness culture troop in October 2011, has reached **3.340 people** in 8 towns: Jarkaken, Joloweaken, Tiama’s Town or Petroken, Tweh’s Town, Gorbowragba, Keh’s Town, New Town and Putu Jawordee.



**In 2011, 18 theater performances about chimpanzees have been seen by 7.500 people in Liberia.**

#### 4.1.3. Guinea

From 23.04.2011 till 13.05.2011 a theater tour was conducted with the professional theater troupe “Touchatou” in Guinea. They played in Balandougou (**758 spectators**), Sinthiourou (**201 spectators**), Sangarédi (**75 spectators**), Boulléré (**827 spectators**), Kouléré (**358 spectators**) and Parawi (**300 spectators**).



**In 2011, 6 theater performances about chimpanzees have been seen by 2.546 people in Guinea.**



#### 4.2. Newsletter “Forest Wisdom” / “Paroles de forêt”

As usual, copies of the WCF newsletter in French “Paroles de Forêt” and in English “Forest Wisdom” were distributed in 2011 during the awareness activities like the theater plays, the discussion rounds and the film presentations to the local inhabitants, to strengthen the awareness program. The WCF newsletter features stories, news and games on chimpanzees. In 2011 we started the preparation of the the 12<sup>th</sup> issue of the newsletter which will be published in 2012.



In 2011, 7.000 “Paroles de forêt” of the 11<sup>th</sup> issue were distributed in Côte d’Ivoire, 3.000 in Guinea and 7.000 “Forest Wisdoms” of the 11<sup>th</sup> issue in Liberia.

### 4.3. Chimpanzee film presentations and discussion rounds

#### 4.3.1. Côte d'Ivoire

In most cases the chimpanzee documentary film presentations and discussion rounds happen in the evening after the theater plays. Most villages and towns that were visited with the theater troupes also joined the film presentations and discussion rounds. Some villages were not shown the film due to technical problems with the equipment.

Number of villages and spectators in Côte d'Ivoire for the film and discussion rounds:

	Taï NP		Banco NP	
	Villages	Spectators	Villages	Spectators
Aug-11	8	3650		
Sep-11	11	5350		
Oct-11			1	400
Dec-11	4	970	3	490
<b>Total</b>	<b>23</b>	<b>9970</b>	<b>4</b>	<b>890</b>

After each of the theater plays and film presentations, the villagers were invited to ask questions about chimpanzees and conservation to the WCF representative. The public reaction was very positive, as they always welcomed our team warmly and they asked a lot of questions about chimpanzee's life and behavior.



**In 2011, 10.860 people watched the chimpanzee film and participated in discussion rounds in Côte d'Ivoire.**

#### 4.3.2. Liberia

Number of villages and spectators in Liberia for the film and discussion rounds:

	Villages	Spectators
Feb-March-11	3	3750
Oct-11	4	2120
<b>Total</b>	<b>12</b>	<b>5870</b>

**In 2011, 5.870 people watched the chimpanzee film and participated in discussion rounds in Liberia.**

#### 4.3.3. Guinea

In Mai 2011 the WCF presented the chimpanzee films in 6 villages: Balandougou (758 spectators), Sinthiourou (201 spectators), Sangarédi (75 spectators), Boulléré (827 spectators), Kouléré (358 spectators) and Parawi (300 spectators).

**In 2011, 2.546 people watched the chimpanzee film and participated in discussion rounds in Guinea.**

#### 4.4. Club P.A.N.

##### 4.4.1. Côte d'Ivoire

The Club P.A.N. program around the Taï NP could not be fully implemented during the school year 2010/2011. All the teaching materials and the furniture in the offices had been stolen. Due to the delay in the schools opening in the west of the park no activities could be carried out in the 6 west schools. In the east of the park, activities did continue in 6 schools: Koupérou, Adamakro, Sarakagui, Gabon, Amaragui and Petit-Tiémé. In total, **570 school children** attended the Club P.A.N.. The children have been evaluated with pre- and post questionnaires. A teacher training happened. Parent days were held as a means in which the children creatively teach their parents all about what they had learnt during the lessons. The school year 2011/2012 started very well in November 2011 with a teacher training attended by 12 teachers and with the pre-evaluations of **754 children** from 12 schools. We are very happy that we can work in all Club P.A.N. schools again.



**In the school year 2010/2011, 570 children attended Club P.A.N. and in 2011/2012 754 children in Côte d'Ivoire.**

**The WCF published about the successful theater tours in Borchers et al. 2009.**

##### 4.4.2. Guinea

The Club P.A.N. program was established in Guinea in the year 2010. The Ivorian Club P.A.N. coordinators travelled to Guinea to establish the Club P.A.N. in the region of Boké / Sangaredi in the western part of Guinea. During the school year 2010/2011 184 children from the villages of Doubhi and Mobhi attended the program. The full program was held with teacher trainings, pre-and post-evaluations, 10 lessons and parents days. The school year 2011/2012 is still ongoing in 4 villages (Bouléré, Doubhi, Mobhi and Tchiankoun Tyoli) with a total of **289 children** attending.

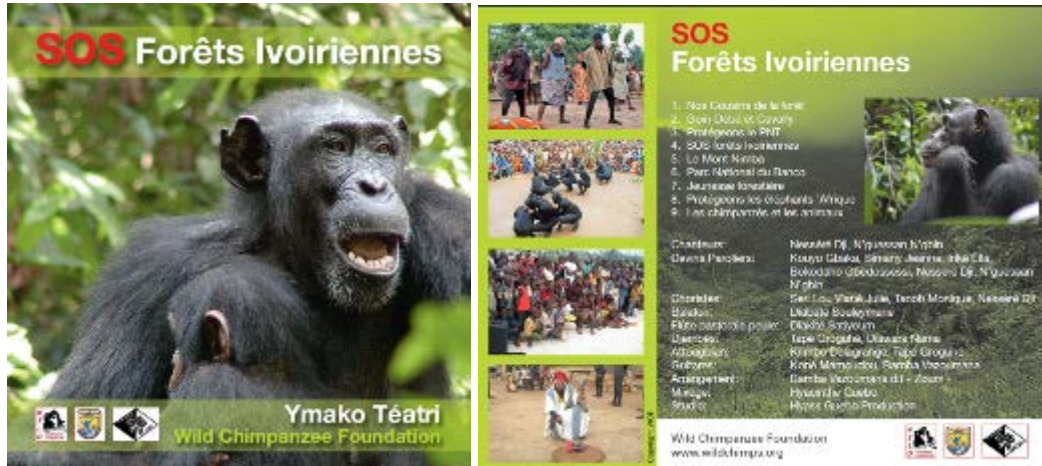


**In the school year 2010/2011, 184 children attended Club P.A.N. and in 2011/2012 289 children in Guinea.**

#### 4.5. Development of education tools

In 2011, the WCF developed new education tools to assist the animators and education officers in creating new ways of sensitizing the local populations. We created a music CD “SOS Forêts Ivoiriennes” with 9 songs performed by Ymako Teatri. The songs talk about chimpanzees and the different national parks in Côte d’Ivoire. The CD has been distributed for free to local communities.

Music CD covers with songs performed by Ymako Teatri:



The WCF has created and printed an array of educational posters and stickers which will be used to discuss the importance of chimpanzee conservation and the idea of landscape corridors for the Taï-Sapo complex.

In 2011, we created 1.000 free copies of the Ymako Teatri music CD in Côte d’Ivoire and distributed an array of education materials like posters and stickers.

#### 4.6. Activities with the CPE and OIPR in Côte d’Ivoire

To encourage the local communities after the crisis to act for the conservation of the park, two “Nights of Conservation” were held in Zagné (July 2011) and Djouroutou (August 2011), which helped raise awareness in more than **3.000 people** through films and animation provided by the “Cellule des Projets Environnementaux”. An interschool competition was held in Zagné (July 2011), called Eco-Wozo-Taï (**1.540 people**). Two radio programs, called "Eco-citizen of the Taï NP" were transmitted by the radio stations of Grand-Zatry and Tabou. The program was animated by **60 children** from 4 schools and dealt with the themes like “Taï NP, a treasure for us children, adults of tomorrow”. In November 2011, two Education days were held, which mobilized more than **3.000 people** from 17 villages to highlight the conservation issues of the Taï NP.



In 2011, 7.610 people were reached by additional activities of the CPE, OIPR and WCF team in Côte d’Ivoire.

#### 4.7. Partner-schoolproject with Germany and Côte d'Ivoire

In 2011, the Lessing-Schule in Zwickau raised 1000 Euros for the renovation of their partner school in Ziriglo. Ziriglos primary school which is also a Club P.A.N. school and very close to the Taï NP was in a bad shape, the ground floor was destroyed and the wall colors where all gone. The parents, teachers and children from Ziriglo helped to renovate their school. The school is now a much nicer place for learning.



The Kepler-Schule in Leipzig raised 1080 Euros for their partner school in Petit Tième and for the Club P.A.N. program in this school. All partner schools involved in Germany and Côte d'Ivoire regularly exchange hundreds of letters, posters and gifts.



**In 2011, the partner schoolproject between German and Ivorian schools raised 2080 Euros and exchanged hundreds of letters and gifts.**

#### 4.8. Nature center in Banco National Park, Côte d'Ivoire

Due to the post electoral crisis in Côte d'Ivoire, we could not carry out many foreseen activities in the Banco NP, due to the difficult security situation and the delay of the re-opening of the schools at the end of 2011. Despite not being able to bring school groups to the nature centre, the WCF nevertheless organized many other visits after June 2011. In July 2011, the new Ivorian Minister of Environment and Sustainable Development organized a ceremony in the Banco NP with the Japan Embassy, which permitted the WCF to show the minister the nature centre and all the activities we carry out in the park. The crisis took its toll on the nature centre and the other exhibits put in place by the WCF in previous years. As such, many of the posters were re-printed, and displays repaired; thanks to new funding from local business SIFCA, the whole nature centre is undergoing refurbishment and renovations. A second building is also planned to be renovated to create a large multi-media room, a library and an office. In October 2011, we organized a 3 performance professional theater tour in and around the Banco NP. We reached an audience of 1.450 people and 400 people attended one of the film projections. The 3

theater performances from the amateur theatre troupe from Agban Attié were seen by 520 spectators and the film was watched by 490 people. In November 2011, we had a two day training session with 20 teachers from French primary schools in Abidjan. This was done in order to prepare visits for these schools in 2012.



**In 2011, the nature center in Banco NP was renovated and was used for 6 theater plays, 6 film presentations, teacher trainings and a ceremony with Ivorian ministries.**

#### **4.9. Sociological study**

In 2011, two full external evaluations through sociological studies have been completed around the Taï NP in Côte d'Ivoire by **Dr. Goh from the University of Cocody-Abidjan** and another one around Sapo NP and Grebo NF in Liberia by **Mr. Baysah from the African Methodist Episcopal University of Monrovia**. All studies involved interviewing a representative group of people in each village. Both studies evaluated changes in knowledge, perception and attitudes towards chimpanzees and the protection of their habitat. The results have been compared with previous studies carried out since 2009, to be able to give a comparative analysis on the long-term to evaluate the full impact of the environmental education program. The full reports, in English for the Liberian studies and in French for the Ivorian studies, are not yet available as final analysis will be carried out in 2012. Some preliminary results are presented here:

In Côte d'Ivoire, we observed a 50% decrease of people stating to eat chimpanzee meat in the post-study. We found that 97.4 % of the interviewed people consider chimpanzees as totem because they are close to human beings (83.3%), they are our ancestors (6%) or they can transmit diseases (0.4%). In 2009, 89.1 % of the interviewed people were ready to help in chimpanzee protection without any condition and this increased to 100% in 2011 in Côte d'Ivoire.

In Liberia, 20% of the surveyed people from the pre-study said they would shoot a crop raiding chimpanzee, only 1% kept this point of view after the sensitization campaign. In Liberia, 22% of the interviewed people considered chimpanzees as sacred/totem in 2010, but after the environmental education projects in their village in 2011, 47% considered chimpanzees as sacred.

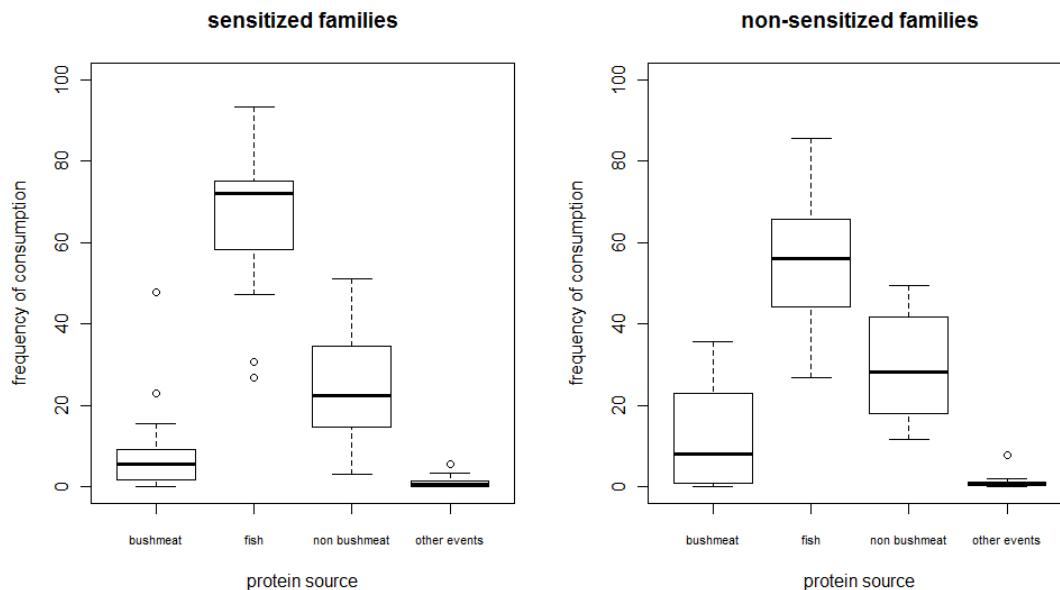
In both countries, the decrease of people saying that they don't kill chimpanzees anymore if they enter their field is more than 95%.

**In 2011, the sociological studies found that the long term effort of the environmental education projects has had a prolonged positive influence on the local populations and their conservation view.**

## **5. Bushmeat study in Côte d'Ivoire**

In 2011, weekly bushmeat data collection has continued on key bushmeat markets: one on the Liberian border, one near the classified forest of Cavally and one in Guiglo, the largest town in the west of the Taï NP. Emphasis has been put on analyzing the data from previous years, collected on 36 families and 54 restaurants in 3 cities (Soubré, Yabayo and Guiglo) and 9 villages (Amaragui, Petit Tiémé, Dioulabougou, Djidoubaye, Zagné, Diero-Oula, Sarakadji, Wonsealy V2 and Sagboya V6) around the Taï NP. Preliminary results have shown a clear change in the meat consumption behavior between families that had been taking part in the WCF education activities, and those that have not done so. Sensitized families eat fish relatively more frequently than meat (including bushmeat and breed meat), compared to non-sensitized families. Furthermore, there is a tendency for some non-sensitized families to eat bushmeat much more frequently than seen in any of the sensitized families.

Protein sources of sensitized and non-sensitized families:



The environmental education campaigns of the WCF seem to change the meat eating tendencies of the local populations without decreasing their protein intake.



**In 2011, the results show a clear change in the bushmeat consumption behavior of families that were taking part in the WCF environmental education activities.**

## **6. Micro-projects in Côte d'Ivoire**

To develop alternatives to bushmeat consumption in the region of Taï NP we implemented several micro-projects over the last years. In 2011, 3 cane-rat and 2 snail farms were managed successfully by children and their teachers of 5 primary schools in Taï, Petit Tiémé, Wonséaly, Djouroutou and Sakré. The snail farms started with around 40 snails and now they have over 500 snails and many eggs. The cane-rat farms have on average 18 cane-rats that are breeding and the others are being sold and with this income the school is building new enclosures. A detailed report is available upon request.



Ten fish farms are under renovation in 10 villages around Taï NP: Nounoubaye, Niouldé, Vodelobly, Béoué, Zagné, Ponan, Dahobly, Bedigouazon, Ditroudra-Beoue and Zéaglo. Because of the political crisis some of the fish farmers fled to Liberia and the farms were abandoned. In 2011, the WCF had to rehabilitate the fish farms, they had to be cleaned and the stolen or destroyed materials had to be replaced. Currently, the WCF is building a chicken farm over some of the fish ponds to increase the sustainability of the farms. The chickens are thus reared by normal means but their droppings which fall automatically into the pond below act as organic fertilizer for the pond. As such a micro-ecosystem is created, with resources being recycled and pollution being reduced. Not only is the overall outcome more eco-friendly, but the input costs are reduced with the removal of additional feed expenses for the fish.



**In 2011, 10 fish farms, 3 cane rat farms and 2 snail farms were ongoing in Côte d'Ivoire as alternative protein sources to bushmeat.**



## **7. Eco-tourism projects in Taï and Djouroutou / Côte d'Ivoire**

Throughout 2011, the eco-tourism activities were persevered as much as possible. In February 2011, the habituation of a red colobus and a sooty mangabey group started, with a total team of 6 guides in **Taï**. They set up “Camp Gliko” along the River N’Zé. After the fighting had begun in the country, the guides stayed in the forest and kept up the work. They helped as much as possible to protect the research camps and the primates. As such, in 2011, the red colobus were habituated and can now be easily followed.



The mangabey group has proved more difficult to become habituated to human observers. In October 2011, more people were recruited, making a total of 9 guides and 2 camp assistants. The need for more guides was mainly due to the chimpanzee habituation activities that started as well. In December 2011, the oldest assistant from the Taï Chimpanzee Project, with more than 20 years experience, spent a month with the teams and was able to find chimpanzees a few kilometers away from the camp. This should mean that in 2012, the habituation of the chimpanzees will prove more fruitful. In November 2011, a new full time eco-tourism coordinator was hired and is now set up in Taï, to supervise all activities. The plans for the hotel to be built in Taï, by the river N’Zé, have been agreed upon, and we hope to start with an experienced architect in 2012. In November 2011, a professional geometer was hired to prepare an official document for the site that has been allocated by the mayor for the hotel that will then be signed by the sub-prefect. Throughout 2011, many discussions were held with the OIPR, the main partner of the project to coordinate activities and efforts.

In **Djouroutou**, 60 km south to Taï, the semi-habituated chimpanzee group suffered greatly due to the crisis and we fear some of the chimpanzees were probably lost to poachers. A coordinator was hired in 2011 to be able to increase the supervision of the activities. She underwent full training with two experts from the Taï Chimpanzee Project and will head down to Djouroutou in January 2012.

A monitoring and evaluation approach was developed for both sites, Tai and Djouroutou. In order to be able to assess the impact of the presence of the guides in the forest, on the abundance of wildlife and poaching activities, two designs of transects have been created. A sociological study was developed to evaluate the perceptions of the local community on the tourism activities.

**In 2011, one red colobus group was fully habituated for the eco-tourism project in Taï, the habituation of sooty mangabeys and chimpanzees was ongoing.**

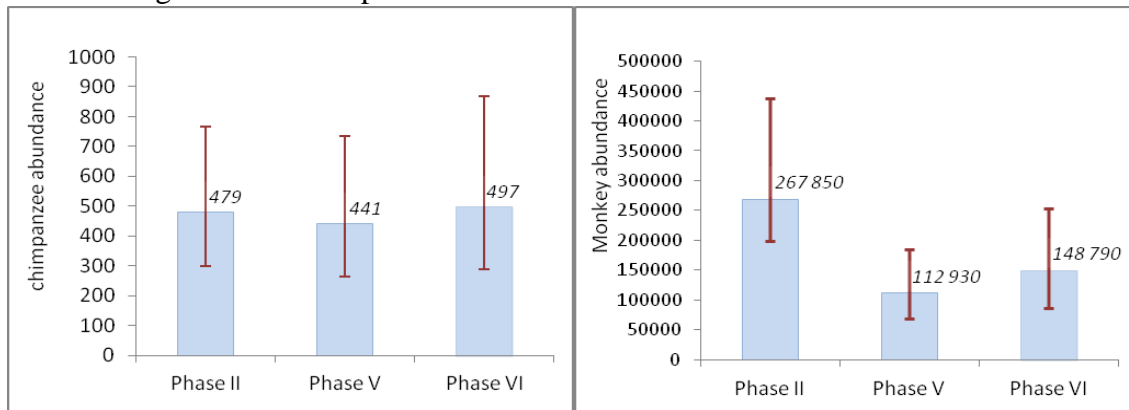
## **8. Biomonitoring and law enforcement**

### **8.1. Data collection and analysis of animal population trends**

#### **8.1.1. Côte d'Ivoire**

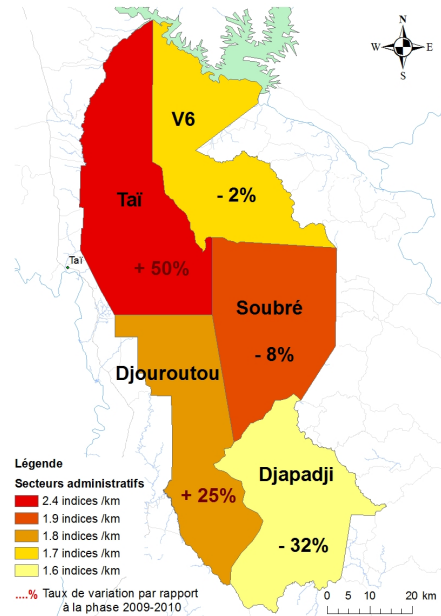
As in the previous years, OIPR and WCF carried out the biomonitoring and law enforcement program in the Taï NP in 2011. Data of phase 6 were collected from October 2010 until March 2011 by 5 joint teams composed by 6 auxiliary villagers and 2 officers of Ivorian Parks and Reserves Office (OIPR). The teams work simultaneously to collect essential information on wildlife and conservation status of the park, and on illegal human signs, which are used to plan law enforcement activities by the OIPR. Detailed reports are available upon request for every mission carried out. In total, 358,9km were surveyed during this phase (97.5% of the expected total distance). In total 13.548 observations including direct and indirect signs of presence of wildlife species and human signs were recorded. Bovid represent a high proportion of the animal population inhabiting the Taï NP with 66% of all animal species signs. The observations of presence signs of flagship species such as chimpanzees, elephants and monkeys represent 1%, 2% and 3%.

Results showed that the monkey population had effectively decreased between the phase 2 (2006-2006) and the phase 5 (2009-2010) whereas the chimpanzee population remained stable through the different phases:



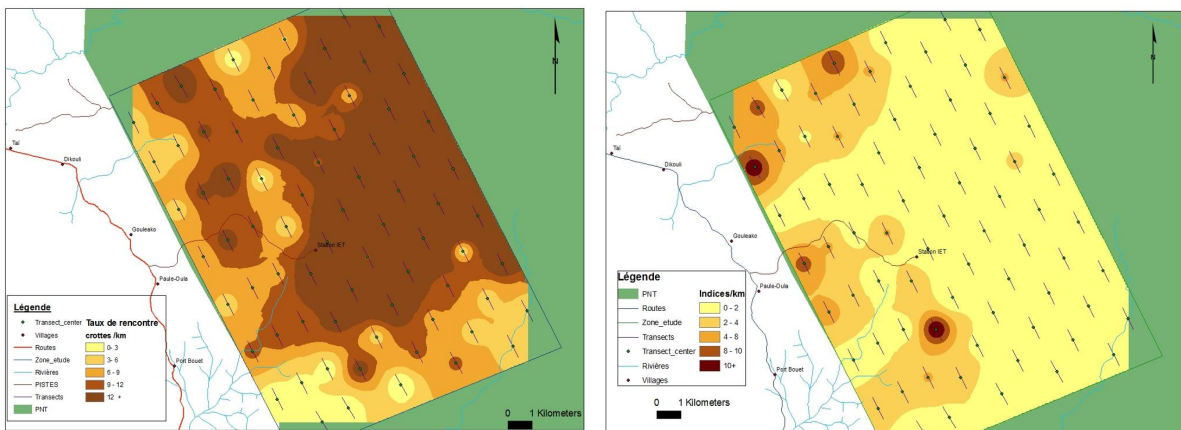
The situation in the Taï NP remains difficult as the illegal human activities remain too high to enable a significant improvement of the situation. Signs of human influence on biodiversity cover the entire park with a high rate of attacks on animal species. In general, illegal human signs remained constant in comparison with a general stability of human influence from the previous phase. During the 6 phase encounter rates obtained were 1.80 signs/km for all signs and 1.69 signs/km for attacks on animal species. Some areas are more aggressed than others and that is the case of the Taï sector, with an increase of illegal human activities of 50%. This increase seems to be related to a very high aggression level in the N'Zo reserve, north of the Taï NP. In the Djouroutou sector, the increase of poaching is non-negligible with 25% more illegal human signs than during the phase 5. The Soubré sector is the area most newly aggressed on the flora compared with the 5 phase with one clearing and 5 new crop fields in the eastern periphery, showing the non stability of the "zone d'occupation contrôlé" (a zone in which the illegal intruders were not evacuated immediately by the OIPR).

Evolution of the human influence on fauna phase 6 compared to phase 5:



In 2011, biomonitoring was also done around the research area in Taï NP, a collaborative project between the WCF and the OIPR since December 2009 and under the financing of the of United Nations Program of Development and the Swiss and Ivorian Funds of Economic and Social Development. The project aims at improving the research and ensures protection of the biodiversity of the Taï NP by checking the effects of the illegal human activities. Data was collected along 100 line transects of one kilometer length each from January 2011 until November 2011. We found that, in the survey area, encounter rates of ungulates signs tended to be less abundant when the distances to the border of the park decreased. The observations of illegal activities about 20km inside the park implies that more patrols should be done in the border area to avoid or reduce biodiversity loss.

Spatial distribution of ungulates signs and human illegal activities in the survey area:



The presence of our research activities may dissuade the development of illegal activities further inside the park. Poaching trails and gun shots were the most frequent illegal signs observed, representing 64% and 20% of all illegal signs. We estimated densities and abundance of primates from the survey 2011 and we compared them to the estimations from previous years. Densities of primate groups decreased from 19 groups/km<sup>2</sup> in 2009 to 10 and then to 6 group/km<sup>2</sup> in 2010 and 2011. A similar trend was found for

individuals densities; we observed that they decreased from 327 ind/km<sup>2</sup> in 2009 to 96 and then to 59 ind/km<sup>2</sup> in 2011. For chimpanzees, in 2011, we observed 44 nests. This sample (less than 60) did not allow us to make any reliable estimation of chimpanzee abundance. Future phases of data collection will allow more analysis for reliable abundance and densities estimation.

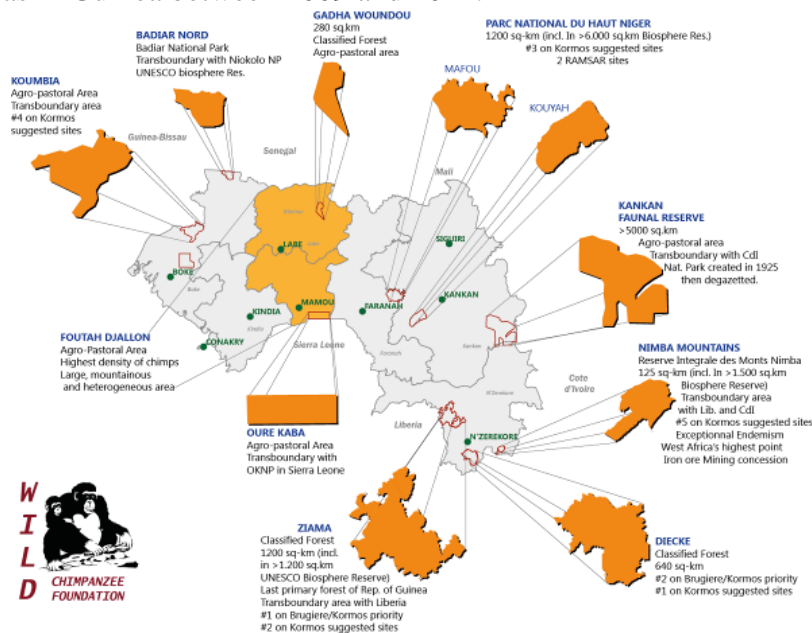
In December 2011, a first field mission started to survey the region around the eco-tourism project in Taï. Thirty line transects of 500m will be surveyed. We believed that results from transects surveys will allow, roughly, the determination of the territory of chimpanzee and other primates which are likely to be appreciated by eco-tourists. Information about illegal human activities and animals signs in the survey area will be given to OIPR staff in order to improve management plans if necessary.

**In 2011, biomonitoring data collection and analysis of animal population trends was done in the Taï NP in Côte d’Ivoire with a total of 459 km transects walked.**

**The WCF published in collaboration with the Max Planck Institute about biomonitoring in Côte d’Ivoire: N’Goran et al. 2012, Campbell et al. 2008, Campbell et al. 2011, Hoppe-Dominik et al. 2011, Kouakou et al. 2009, Kouakou et al. 2011.**

### 8.1.2. Guinea

Guinea is believed to harbor the largest number of West African chimpanzees. But the last chimpanzee survey in Guinea was conducted 15 years ago. Threats to chimpanzees vary greatly due to differences in hunting pressure. It is only through a nationwide survey therefore that these threats can be quantified, and the true dynamics of population changes can be understood. In 2011, we completed a first data collection in 12 protected areas as well as known chimpanzee sites; we see that the situation of the chimpanzees is alarming with many protected areas with as little as less than 50 chimpanzees present. Surveyed areas in Guinea between 2009 and 2011:

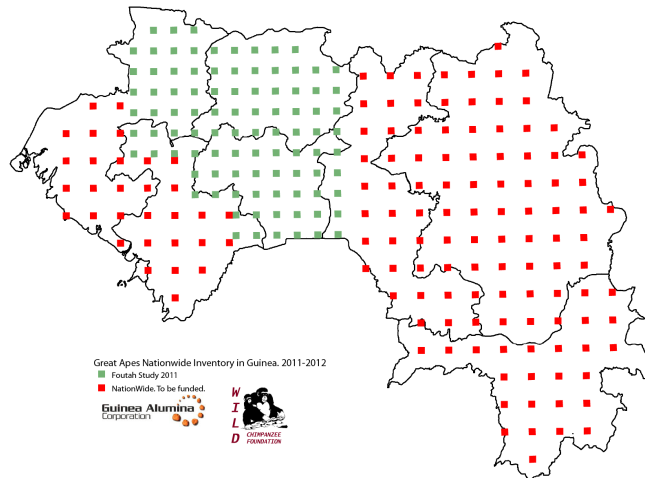


It is urgent to complete this nationwide survey to include the Guinea maritime, which has a situation similar to the Fouta Jalon and might therefore host a relatively large

chimpanzee population, on which it would be essential to know the distribution and the spots with higher densities.



Sampling design and data already acquired for the National Action plan in Guinea. The sampling occurs in 3X3km cells systematically laid out every 27km. The cells in green have been sampled by the WCF teams. The red cells have to be finalized.

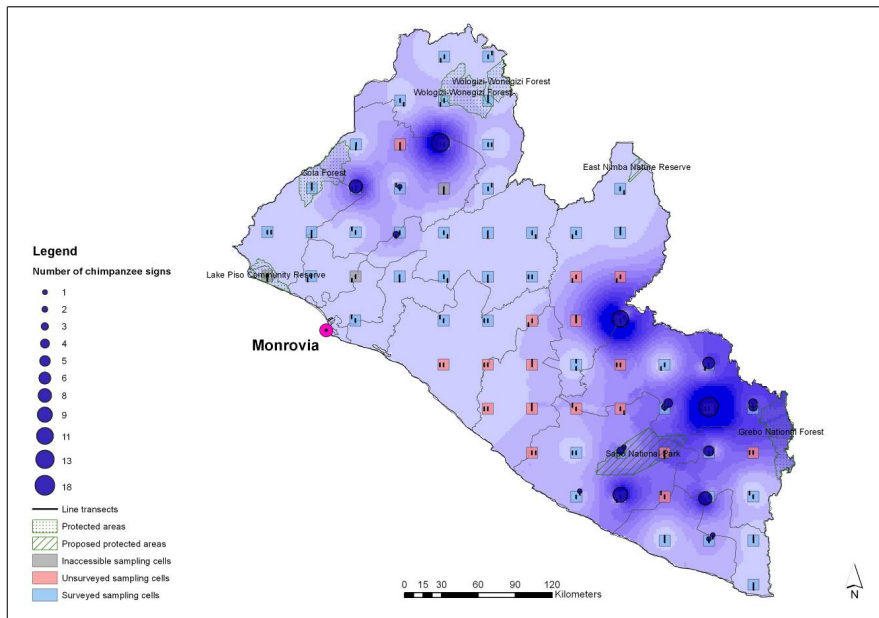


**In 2011, biomonitoring data collection and analysis of animal population trends was done in 12 protected areas in Guinea with a total of 1109 km transects walked.**

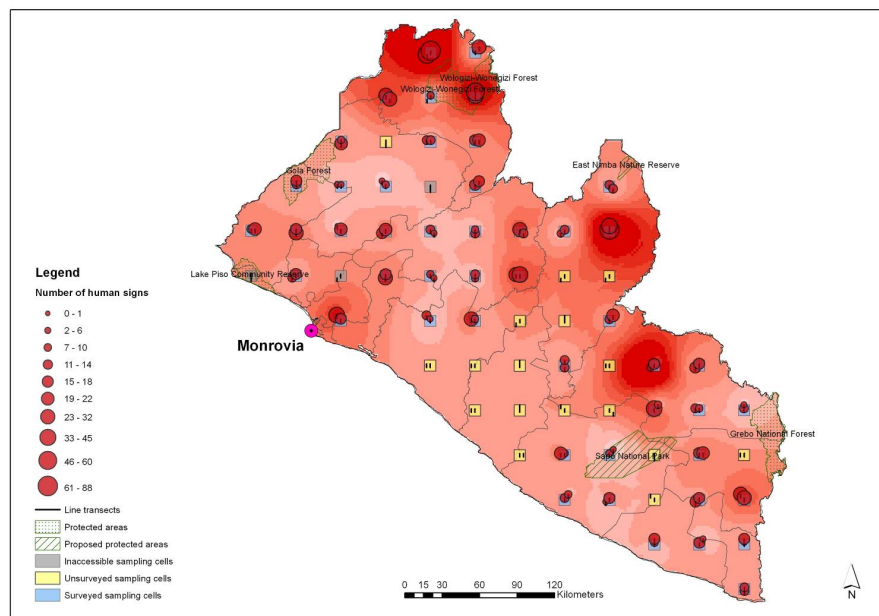
### 8.1.3. Liberia

In 2011, the nationwide survey of chimpanzees through the Pan African Program in Liberia was ongoing in collaboration with the Max Planck Institute. This program started in 2010. A systematic survey design was adopted. We conducted interviews, nest decay studies and completed about two thirds of survey cells. In total, in December 2011, 16 cells remained. We performed a preliminary analysis about the spatial distribution of chimpanzee signs.

We found most chimpanzee signs in the south east and north east of Liberia:



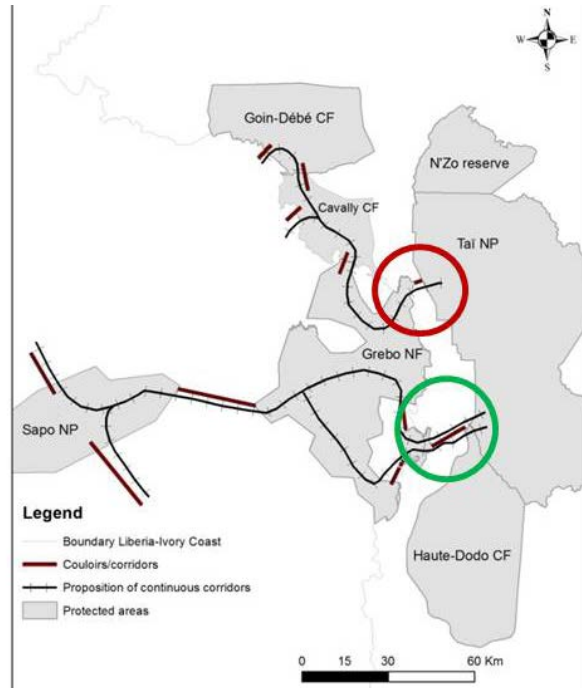
Signs of human impact on biodiversity tend to increase closer to the areas where more chimpanzee signs were observed:



**In 2011, biomonitoring data collection and analysis of animal population trends was done in a nationwide survey of chimpanzees through the Pan African Program in Liberia.**

#### 8.1.4. The Tai-Sapo complex : Liberia / Côte d'Ivoire

In 2009 a workshop held in Abidjan initiated a trans-boundary collaboration between Côte d'Ivoire and Liberia in order to establish landscape corridors between the protected areas of the Tai-Sapo Forest Complex. The first corridors to be studied are the two that connect the Tai National Park (Côte d'Ivoire) to the Grebo National Forest (Liberia):



The biomonitoring data was collected in 2010 and the analyses and reports were developed in 2011. Despite a high level of human pressure, the survey showed presence signs for several species of duikers, with an encounter rate of 2.22 signs/km in the north corridor (red circle on the map) and 1.86 signs/km in Djouroutou-Grebo (green circle on the map). Bovid was the most common family encountered during the survey. Even though no chimpanzee signs were noted, our teams found signs of several monkey species such as the diana monkey, lesser white-nosed monkey, sooty mangabey, lowe's mona monkey and dwarf galago. Moreover, the survey along the rivers allowed us to detect signs of several large mammals such as pigmy hippos, elephants and leopard. The survey allowed us to define the anthropogenic land use within the corridors, which are rural areas, and therefore contained mostly plantations of both perennial and food crops. Areas used for perennial plantations such as cocoa, coffee, rubber or palm represented about 50% of the total surface of both corridors. Food crops such as rice, yam and cassava, represented 14% of the Tai-Grebo corridor and 9 % of the Djouroutou-Grebo corridor. The prepared report is a basis for the implementation of different conservation measures needed for the two corridors to ensure mobility for the animal species between Grebo National Forest and Tai NP. By restoring the gallery forest ecosystems along the streams, supporting reforestation within the corridors, promoting sustainable agricultural practices such as agro forestry, developing the production of non timber forest products, sensitizing the local populations, and increasing communication between officials of both countries, landscape corridors could be put in place to connect the protected areas in the Tai-Sapo Forest Complex and as such ensure the survival and gene diversity for the animal species therein.

## 8.2. Strategic law enforcement and anti-poaching patrols

In 2011, the crisis reduced the patrols and law enforcement programs of the OIPR in Côte d'Ivoire. Consequently, illegal human activities such as poaching increased in all sites the WCF surveyed. We presented the results on the 2011 biomonitoring programs in Côte d'Ivoire to the OIPR and suggested to improve the law enforcement program in the areas where high illegal activities are observed such as in the Taï and Djouroutou sector. Poaching trails have to be continuously monitored as well as local bushmeat markets and restaurants, as it was done in 2011. Anti-poaching patrols also have to concentrate on the areas of high animal abundance. Guards have to be permanently present at the eco-tourism and research sites in the Taï NP in Côte d'Ivoire.

We are carefully optimistic about the fact that in 2011, the WCF environmental education activities encouraged the local population to protect their natural resources, as seen in the creation of a local park protection team that was set up during the crisis around the Taï NP, when both WCF and the park authorities could not be on site.

The WCF is also working in Guinea and Liberia closely together with the official managers, guards and authorities of the national parks and reserves: for Liberia the "Forestry Development Authority" and for Guinea the "Direction Nationale des Aires Protégées et de la Biodiversité". All informations that the WCF is collection during its biomonitoring programm, mainly about illegal human activities and animals signs in the survey area, will be given to the official managers, guards and park authorities in order to improve management plans, strategic law enforcement and anti-poaching patrols.



**In 2011, strategic law enforcement and anti-poaching patrols by the Office Ivoirien des Parcs et Réserves in Côte d'Ivoire, the Forestry Development Authority in Liberia and the Direction Nationale des Aires Protégées et de la Biodiversité in Guinea were supported by the WCFs biomonitoring results.**

**The WCF published in collaboration with the Max Planck Institute about law enforcement: N'Goran et al. 2012, Tranquilli et al. 2011.**



## **9. Sustainable extractive projects**

### **9.1. Sustainable logging in classified forests in Côte d'Ivoire**

In 2011, biomonitoring data analysis for the classified forests of Cavally and Goin-Debe was ongoing. The WCF is advising this sustainable logging project in collaboration with the Society for the Forest Development (SODEFOR), the legal authority for the classified forest management. Together we worked on forest management plans to set up a sustainable management of the logging activities in these two classified forests. The radar images started to be analyzed by a student from the University of Abidjan to improve the management plan that has to be finalized in 2012.



**In 2011, the forests of Cavally and Goin-Debe in Côte d'Ivoire were highly attacked following the post-electoral crisis, but the program of support to surveillance in the forest was able to start in December 2011. In 2012, the management plans will be finalized for the two forests.**

### **9.2. Mitigation mining impact and offsets**

#### **9.2.1. Liberia - Concession of Arcelor Mittal in Nimba**

In 2011, the WCF continued its collaboration with Conservation International and Actions pour la Conservation de la Biodiversité in order to initiate a long-term biomonitoring program by using line transect methodology for large and medium mammals and trapping methods for small mammals in the remaining forest of West Nimba. We divided the total survey area in three sites (the Gangra-Yuelliton site where mining will be carried out, the Tokadeh site (under exploitation since May 2011) and the West Nimba site (the remaining West Nimba forest). We then completed two main surveys in the study area of 121 km<sup>2</sup>; the first one was carried out in 2010 and the second one in 2011. We sampled about 70 km of transects and carried out trapping campaigns during 15 days during the first survey period. During the second survey phase, we completed about 108 km of transect representing 89% of the total length of transect planned in our design. Our results indicated that animals were becoming rare in all the sites. Indeed, almost all detections were indirect observations of animals, vocalizations, foot prints, droppings and nests. The encounter rate of human activities was high and reached 10.33 indices per km. The most observed signs were bovid presence indices (15 signs/km), while primates were the least encountered species (1.13 sign/km).

Abundance and encounter rates of human and animals signs observed in 2011:

Group of detections	Number			Encounter rate		
	Phase 1	Phase 2	Total	Phase 1	Phase 2	Total
<b>Human Activities</b>	709	1148	<b>1857</b>	10.01	10.5	<b>10.3</b>
<b>Bovid signs</b>	956	1725	<b>2681</b>	13.5	15.8	<b>14.9</b>
<b>Chimpanzee signs</b>	35	150	<b>185</b>	0.49	1.4	<b>1.0</b>
<b>Monkey signs</b>	6	12	<b>18</b>	0.08	0.1	<b>0.1</b>
<b>Other mammal signs</b>	33	39	<b>72</b>	0.47	0.4	<b>0.4</b>

We confirmed the presence of 5 diurnal primate species, chimpanzees, some bovid species and carnivores such as leopards. The chimpanzee population size was estimated at about 26 individuals ranging from 10 to 67 individuals. We collected in total 292 specimens of small mammals representing 14 genera of rodentia and insectivora. Assuming no mitigation measures and full scale opencast mining at all the conceded sites, it is likely that chimpanzees will greatly decrease or disappear. Shifting ecological conditions always lead to species loss but we cannot exactly predict which species will be affected. The study zone appears to be a mosaic of highly degraded habitats that include agricultural land, disturbed areas because of past and recent mining activities, secondary forests but with also primary forest covering more than 30% of the habitats recorded. The core of this valuable zone is under high anthropogenic pressure from the communities.

Several sites have been identified in the study area (West Nimba, Mounts Gangra, Yuelliton and Tokadeh), but all of them need immediate action ranging from rehabilitation plans, surveillance and community engagement if they are to be effective as wildlife and biodiversity refugia. The East Nimba range, that was also investigated, seems to present good potential for a local offset and for establishing biodiversity refugia, if habitats on East Nimba can be protected and corridors established. Indeed, the East Nimba Nature Reserve presents many characteristics of a real forest area like West Nimba. The illegal human activities are very high in the protected areas and consist mostly of agriculture and hunting. These two activities will soon destroy the habitats available to wildlife and decimate the animals.



**In 2011, biomonitoring data collection and analysis of animal population trends was ongoing for the offset evaluation of the Concession of Arcelor Mittal in Nimba / Liberia, with a total of 178 km transects walked.**

## 9.2.2. Guinea - Guinea Aluminum concession

In addition to its critical importance for biodiversity conservation and chimpanzee protection, Guinea is very rich in mineral resources. Mining is expected to lead to significant impacts on biodiversity in Guinea in the near future.

The WCF and the Guinea Alumina Project (GAP) have been collaborating since 2008 to develop a management plan so that the mining activities conducted by GAP in Sangaredi, Prefecture of Boké, Republic of Guinea will have the least possible long-term adverse impact on the chimpanzee communities occurring on the GAP concession. The collaboration will also support meeting the requirements of the social and environmental sustainability performance standards imposed by one of the potential lenders, the International Finance Corporation (IFC), of the World Bank.

In 2011, the WCF has proposed a full scale biodiversity management plan, with a strategy for mitigating mining impacts.

Surveys conducted by the WCF in 2011 are essential to provide both the large scale data on the ecological and evolutionary drivers of chimpanzee distribution that are key for prioritizing sites and activities for chimpanzee conservation, as well as the necessary baseline data for quantifying the cumulative impact of mining on the chimpanzee population in Guinea. Understanding the cumulative impact of the mining sector will help mining companies developing tools to meet their environmental standards and operated with responsibility in these very fragile ecosystems.

During surveys on the GAC concession from 2009 – 2011 the following results on chimpanzee signs have been collected.

### Chimpanzee signs on the GAC concession

	2009	2010	2011	
<b>Number of signs</b>				
Direct Obs	51	40	6	
Stool	59	28	20	
Tracks	19	10	5	
Nests	1004	592	654	
<b>Chimpanzee signs per habitat</b>				<b>Grand Total</b>
Forest	12.26%	2.99%	4.53%	7.62%
Agricultural land	68.83%	81.79%	68.47%	72.23%
Tree savannah	16.25%	14.78%	27.01%	18.82%
Herb savannah	2.66%	0.45%	0.00%	1.33%
Grand Total	1133	670	685	2488
<b>Densities and Abundance</b>				
Effort (km)	536,982	347,397	339,265	
D (indiv./sq.km)	0.11	0.18	0.25	
A (indiv.)	119	190	266	



**In 2011, biomonitoring data collection and analysis of animal population trends was ongoing for the offset evaluation of Guinea Aluminum concession, with a total of 339 km transects walked.**

## **10. Acknowledgments**

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The WCF is grateful to all the private donors, the conservation agencies and foundations supporting its conservation activities:

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Keidanren Nature Conservation Fund
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RRF-Fauna Flora International
Sweden Chimpanzee Trust
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- WILD Foundation
- Wildlife Conservation Society
- World Wildlife Fund
- Rainforest Alliance
- Fauna & Flora International

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- Ministères de la République de la Côte d'Ivoire
- Ministère de l'Environnement, du Développement Durable, des Eaux et Forêts
- Ministère de l'Enseignement Supérieur et de la Recherche Scientifique
- Ministère du Tourisme
- Ministère de l'Education Nationale
- Ministère de l'Economie et de Finances
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- Ecole de Taiï, Theater troupe
- Ecole de Wonsealy, Theater troupe
- Ecole de Djouroutou, Theater troupe
- Ecole de Grabo, Theater troupe
- Ecole de Agban-Attié, Theater troupe
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**Partners in Guinea:**

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- Direction Nationale des Aires Protégées et de la Biodiversité
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- Guinea Alumina Project
- Société des Mines de Fer de Guinée
- Centre de Conservation des Chimpanzés
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- ONG Guinée-Ecologie
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- Ministry of Agriculture, Forestry and Food Security, Forestry Division
- The Conservation Society of Sierra Leone
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- University of Monrovia
- Eddie theatre productions, Theatre troupe
- Jawordee Conservation Awareness Culture Troop, Theatre troupe
- David Woods Baysah, Sociologiste

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