

## Project Update: October 2023

### I/ Project summary

The project focuses on the white-naped mangabey (*Cercocebus lunulatus*) an endangered primate species living in Comoé National Park. Unfortunately, this park experiences significant anthropogenic pressures, especially poaching, artisanal gold mining activities, habitat degradation and fragmentation. Updated information on the distribution status and viability of this species population is important to develop sustainable conservation strategies and management plans to ban such illegal activities in the park. This project research will use reconnaissance survey (recce), camera trap and phenology transect methods to assess the distribution status and viability of this species population and its habitats, including interviews with key actors such as local community leaders, ecoguides, hunters and park managers staff.



**Caption for cover photo** : White-naped mangabey adult male in *Afraegle paniculata* tree in Comoé National Park. Photo taken on 23<sup>rd</sup> of July, 2021 by Coulibaly Tchinyo

### II/ Project objectives

1. Determine the spatial distribution of white-naped mangabey populations in the park
2. Describe the ecological and anthropogenic factors that influence this distribution
3. Describe the quality of habitats to assess their suitability
4. Determine the population viability by assessing the relationships between species and the local communities around the park.

### III/ Introduction

I received funding for my grant on June 9th, 2021 to carry out my project in the Comoé National Park (CNP), located in the north-east region of Côte d'Ivoire. The camera trap data collection started on November 25th, 2021 and will end on November 18th, 2022. This report provides an update on the white-naped mangabey's spatial distribution during the rainy season in CNP, from May 2022 to October 2022. It highlights the findings of the study.

### IV/ Project Progress

The collection of camera trap data has been completed during the dry and rainy seasons. In total, 21,740 videos were recorded, with 9,434 in the dry season and 11,740 in the rainy season. Out of all the recorded videos, 11,705 of them (53.8%) have already been added to the database. Of these, 2,156 videos (18.4%) featured non-human primate species. The white-naped mangabey was the most frequently recorded non-human primate species, appearing in 1,148 videos (53.2%). An update report was sent to Rufford in May 2022. The activities completed between May 2022 and November 2022 are outlined in the following paragraphs.

#### 1. Camera traps sessions

We conducted fieldwork in the Dabakala and Nassian sectors during the rainy and dry seasons, between May 28th 2022 and October 31st 2022 for the first phase and between November 1st and 18th 2022 for the second phase (see Figure 1). Our fieldwork consisted of five sessions of camera trapping, each with a different number of cameras. For the first session, we deployed 21 camera traps, 20 for the second session, 39 for the third session, 26 for the fourth session, and three for the fifth session (This session pertains to cameras that could not be uninstalled because of flooding in the park.)

- During the first session, which took place from May 28th, 2022 to July 1st, 2022, we installed a total of 23 camera traps. These cameras consisted of 16 Browning Strike Force Max Plus cameras, 4 Bushnell Trophy Cam cameras, and one Bushnell Core Low Glow camera. The camera traps were placed in gallery forests and forest patches within 12 cells. Throughout this session, we were able to record a total of 1,125 videos.
- During our second session, which took place from June 5th, 2022 to July 7th, 2022, we deployed 20 camera traps across gallery forest and forest patches to sample 10 grid cells. These cameras included 4 Browning Strike Force Max Plus, 8 Bushnell Core Low Glow, and 8 Bushnell HD Trophy cameras. Overall, we recorded a total of 3,662 videos.
- During our third session, which took place between July 11th 2022 and August 22nd 2022, we deployed 39 camera traps across gallery forests and forest patches. These included 20 Browning Strike Force Max Plus cameras, 8 Bushnell Core Low Glow cameras, and 11 Bushnell HD Trophy cameras. The cameras were set up to sample 20 grid cells, and in total, we recorded 4,385 videos.
- During our fourth session, which took place from August 25th, 2022 to October 31st, 2022, we deployed 26 camera traps (18 Browning Strike Force Max Plus

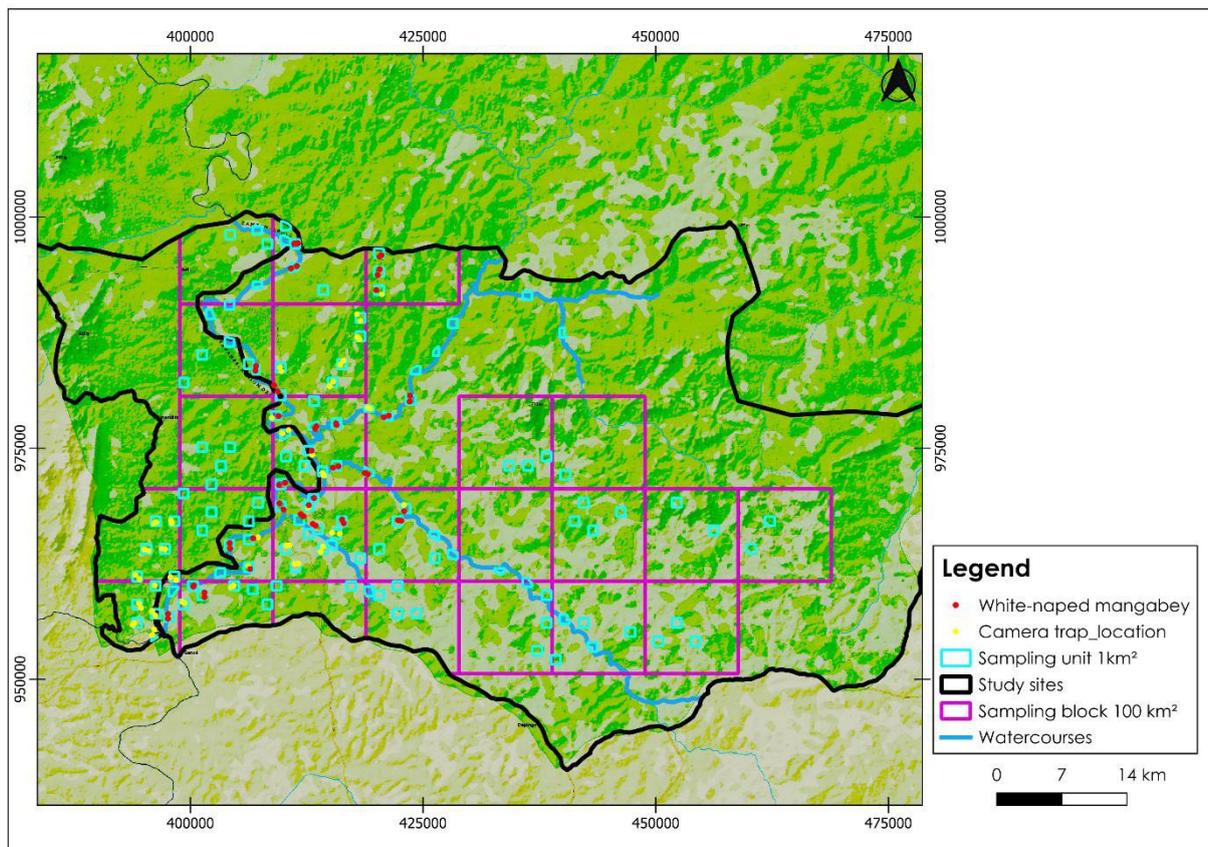
cameras and 8 Bushnell Core Low Glow cameras) to sample 13 grid cells across gallery forests and forest patches. In total, we recorded 2,493 videos.

- This session from November 1<sup>th</sup> to 18<sup>th</sup> 2022, pertains to four camera traps that could not be uninstalled because of flooding in the park. A total of 75 videos were recorded during this period.

During the course of five trapping sessions, we sampled 55 grid cells, consisting of 24 cells in gallery forest and 31 cells in forest patches. A total of 11,740 videos were recorded during this period. Out of the 55 sampling units of 1km<sup>2</sup> each, the white-naped mangabey was captured on video in 30 cells, which accounted for 54.5% of the total sampling units. It was filmed in 20 cells in gallery forest and 10 cells in forest patches.

During the camera trapping sessions, eight species of diurnal primates were recorded, as well as several other large mammals such as elephants, hippopotamus, hyenas, waterbuck, bay duiker, and armadillo. One camera trap was even stolen by a hunter. Additionally, videos of poachers and fishers were recorded during these sessions, as well as in the gallery forest and forest patch. You can find an image related to this in the annexes.

The table below summarizes trapping and camera performance during the five rainy season sessions.



**Figure 1 :** The spatial distribution of the target species and camera trap location in CNP  
**Table 1 :** Trapping session and camera trap performance

Comoé National Park (CNP), north-east of Côte d'Ivoire					
Study site	Sampling session	Sampling cells planned	Sampling cells surveyed	Number of CT laid	Number of videos
Nassian sector	Jun 2022- July 2022	95	10	20	3662
	July 2022- August 2022		20	39	4385
	August 2022- November 2022		13	26	2568
Dabakala sector	May 2022- June 2022	30	12	23	1125
<b>TOTAL</b>		<b>125</b>	<b>55</b>	<b>108</b>	<b>11740</b>

## 2. Difficulties

Accessing the park during the rainy season becomes difficult, which has caused delays in data collection during this period. Additionally, the large number of videos needing analysis resulted in a delay in submitting the final report, which was originally scheduled for February 2023 (as mentioned in the initial project's activities and timeline section). However, due to the aforementioned delays, the submission has been postponed. The awareness-raising efforts among residents to promote sustainable conservation strategies for protecting the wildlife sheltering in CNP are still ongoing. This activity was not funded by your organization but by another co-funding source.

## V/ Upcoming project activities

Currently, we are inputting data that was collected during the rainy season. These results will be compared to those obtained using the Recce method after analysis. I plan to publish our survey manuscript by December 2023 and defend my PhD thesis as soon as possible next year.

## VI/ Acknowledgement

Our acknowledgements go to the following funds and administrative institutions that provided funding and technical support for the implementation of this project in Comoé National Park.



## VII/ Annexes

**Photo 1** : Some images of the *Cercocebus lunulatus* in gallery forest and forest patche in CNP.



Left : Comoé gallery forest. Right : Kongo gallery forest.



Left : Iringou gallery forest. Right : Forest patche close to Comoé gallery forest.

**Photo 2** : Some images of other primate species recorded in CNP.



Left to right : Pan troglodytes verus (gallery forest), Papio anubis (forest patch) & Cercopithecus lowei (gallery forest).



Left to right : Cercopithecus petaurista (gallery forest), Chlorocebus sabaeus (gallery forest) & Procolobus verus (gallery forest).

**Photo 3 :** Image of other mammal species recorded in Comoé National Park.



Left to right : *Loxodonta cyclotis* (forest patch), *Hippopotamus amphibius* (gallery forest) & *Crocuta crocuta* (forest patch).



Left to right : *Kobus ellipsiprymnus* (gallery forest), *Cephalophus dorsalis* (forest patch) & *Orycteropus afer* (gallery forest).

**Photo 4 :** Image of poacher and fisher in Comoé National Park.



Left to right : Poacher with gun (Dabakala Sector) & Fisher (Nassian Sector).