

NCF-WCS Biodiversity Research Programme

**Gorilla Reconnaissance Surveys:
Okwangwo Division,
Cross River National Park**

DECEMBER 2006 - MARCH 2007

NAOMI COHEN

Introduction

This report is a summary of three gorilla reconnaissance surveys conducted in the Okwangwo Division of Cross River National Park (CRNP) by a joint team from the NCF-WCS Biodiversity Research Programme, CRNP, and local communities. The first survey was carried out from December 9th and 16th, 2006 in areas south and south-east of Okwa. The second survey was completed between January 9th and 15th, 2007 in areas north and north-east of Okwangwo, Okwa I and II including the Balegete forest. The final survey was conducted between March 10th and March 15th, 2007 in the Bumaji area. All evidence of gorillas, including nests, trails, feeding evidence and fecal samples were recorded. Signs of other wildlife and human activities in the Park, including hunting and farming, were also noted.

Although gorillas were not sighted directly, signs of gorilla activities were recorded during all three surveys.

Visits to villages within and surrounding the survey areas – Okwa I, Okwa II, Otshakwe, Yangwabe, Ogwefuo, Bakie, Bagabo, Oshonikpa – incorporated meetings with community members to discuss conservation issues and to gather information on gorillas in the areas.

Team Members

NCF: Nigerian Conservation Foundation

WCS: Wildlife Conservation Society

CRNP: Cross River National Park

Survey 1

Ofere Agbor (CRNP)

Louis Nkonyu (Okwa II)

Naomi Cohen (NCF-WCS)

Survey 2

Sampson Akabo (CRNP)

Celestine Nkra (CRNP)

Ignatius Okwo (Butatong)

Louis Nkonyu (Okwa II)

Naomi Cohen (NCF-WCS)

Survey 3

Celestine Nkra (CRNP)

Alex Out (Yangwabe)

Peter Oshioka (Yangwabe)

Philip Ofre (Yeangwebe)

Stephen Hembra (NCF-WCS)

Naomi Cohen (NCF-WCS)

Findings and Discussions

Gorillas:

Evidence of gorillas discovered during the reconnaissance surveys in the Cross River National Park is summarized in Table 1. The data confirm the presence of gorillas in all of the survey areas. However further studies are required to determine total population estimates, group composition and ranging patterns.

During the first survey period, a total of three (3) fresh gorilla day nests were encountered in the valleys northeast of Ntia Cave (see map) after an unidentified animal was heard moving through the forest. Based on the freshness of the leaves and breakage, it is suspected that a small group of gorillas were present in the area, and dispersed upon hearing the research team approaching.

No evidence of gorillas was observed in the forest between Okwangwo and Okwa I. This area showed signs of pronounced human disturbance including hunting and exploitation of non-timber forest products such as afang (*Gnetum africanum*) and bush mango (*Irvingia* sp.). Relatively easy and frequent access to this region of the Park by locals due to the close proximity to a major path connecting Butatong, Bumaji, Okwangwo and Okwa villages, may discourage gorillas from moving in this region.

A total of five (5) gorilla nests were discovered during the second survey. Three of these nests were considered relatively recent (1-2 weeks old) while the other two were older (>2months). All were observed in forest northeast of Okwa II and were found in steep and rocky hillside locations. Fresh breakage signs were also observed leading team members to suspect an individual gorilla moving nearby. Attempts to find a trail were unsuccessful most likely due to the difficult terrain descending into a valley. It should be noted that both Okwa and Balegete village members suggested that gorillas and chimpanzees are more prevalent in these forests during the wet season (March/April and August).

A total of 79 gorilla nests were discovered during the survey near Bumaji including 43 recent (<1 week) and 8 fresh (1-3 days old) nests. The number of nests at each site varies from 1-12. The largest single nest site containing 12 nests was estimated to be <1 week old. Many nests were found within approximately 10-20 meters of each other making it difficult to determine group size in some cases. In such cases, the age of the nest was estimated and used to group nests. Many additional signs of gorilla activities including dung, feeding signs and vegetation breakage/trails were also encountered which suggest that gorillas have been moving in these areas recently. No old (>1 month) gorilla signs were recorded in this area.

Table 1: Observed Gorilla Nests

Date	Location	Estimated Age of Nest(s)	Number of Nests	Comments
11/12/06	NE of Ntia Cave (GPS n/a)	1 day (same day)	3	Ground level day nests, green leaves, wet breakage point, hillside, steep/rocky terrain,
12/12/06	SE of Mr. Ogwa's Camp (GPS n/a)	2-3 weeks	1	Ground level, 1m in diameter, green and brown, wilted leaves, maintained nest shape, hillside, trees, 15m from an old chimp nest
12/01/07	N06° 18.186' E09° 18.679'	2 weeks	1	Ground level, 0.6m diameter, green, wilted leaves, rocky terrain, steep hillside, near feeding signs (<i>Aframomum</i> fruits)
12/01/07	N06° 18.219' E09° 18.648'	1 week	2	Ground level, 0.8m and 0.6m diameter, green leaves, rocky terrain, approx.10m from single day nest
13/01/07	N06° 18.519' E09° 19.184'	>2 months	2	Brown, wilted leaves little shape, steep, rocky terrain, hillside, 0.5m and 0.6m diameter, 9m and 8m height, difficult to distinguish whether nests were made by gorilla or chimpanzee.
10/03/07	50m north of N06° 25.550' E09° 16.764'	2-3 days	5	One ground level, trail, breakings, feeding signs, valley side, near Matche stream
11/03/07	N06° 25.746' E09° 17.275'	1-2 days	2	
11/03/07	N06° 25.488' E09° 17.425'	1-2 weeks	2	(Height, Diameter) 1m, 1.3m; 1m, 1m; 1m, 1.2m; 3.5m, 0.7; 0m, 0.7; 0m, 1.3m; 0m, 1m; Dung
11/03/07	N06° 25.503' E09° 17.429'	4-7 days	8	15m from group of 2 nests above
12/03/07	N06° 25.118' E09° 17.986'	4-7 days	1	3m, 0.5m; near pear fruit tree, dung
12/03/07	N06° 25.118' E09° 17.986'	<1 week	1	2m, 1m; <20m from single nest above
12/03/07	N06° 25.143' E09° 18.077'	< 1 week	3	All ground level, estimated at same age, 10m apart from each other
12/03/07	N06° 25.111' E09° 18.077'	2 weeks	11	10m from group of 3 nests above
12/03/07	N06° 25.111' E09° 18.077'	2 weeks	1	15m from group of 11 nests above
12/03/07	N06° 25.100'	2-4 weeks	11	Dung

	E09° 18.089'			
12/03/07	N06° 23.105' E09° 18.117'	2-3 days	1	Suspected to be day nest, 0m, 1m; dung
13/03/07	N06° 25.098' E09° 18.217'	<1 week	2	1m, 0.8m; 1m,1mm; valley side, near stream, rocks, 15m from group of 12 nests below
13/03/07	N06° 25.098' E09° 18.217'	<1 week	12	Dung
13/03/07	N06° 24.935' E09° 18.295'	5-7 days	1	10m from group of 8 nests below
13/03/07	N06° 24.935' E09° 18.295'	<1 week	8	Steep valley side (landslide)
13/03/07	N06° 24.851' E09° 18.161'	5 days	8	
13/03/07	N06° 24.851' E09° 18.161'	unknown	1	10m from group of 8 nests above, 2m, 0.5m
13/03/07	GPS n/a	<1 week	1	Suspected to be day nest

*n/a: not available

Other wildlife

Direct and indirect evidence was found at the Cross River National Park for the wildlife species listed in Tables 2 and 3. Observations of wildlife species during the survey were extremely infrequent, possibly due to high levels of unmonitored hunting and the dry season.

Table 2: List of Mammals

English Name	Scientific Name
Red-river hog	<i>Potamochoerus porcus</i>
Duiker	<i>Cephalophus</i> sp.
African buffalo	<i>Syncerus caffer</i>
Brush Tailed porcupine	<i>Atherurus africanus</i>
Giant Pouched rat	<i>Cricetomys emini</i>
Chimpanzee	<i>Pan troglodytes vellerosus</i>
Mona monkey	<i>Cercopithecus mona</i>
Putty Nose monkey	<i>Cercopithecus nictitans</i>
Red-Eared monkey	<i>Cercopithecus erythrotis</i>
Galago	<i>Galagoides</i> sp.

Table 3: List of Birds

English Name	Scientific Name
White crested hornbill	<i>Tropicranus camurus</i>
White thighed hornbill	<i>Ceratogymna albotibialis</i>
Grey-Headed broadbill	<i>Smithornis sharpei</i>
Yellowbill	<i>Ceuthmochares aereus</i>
African Paradise flycatcher	<i>Terpsiphone viridis</i>
Red-Bellied Paradise flycatcher	<i>Terpsiphone rufiventer</i>
Yellow Billed barbit	<i>Trachylaemus purpuratus</i>
Bearded greenbul	<i>Criniger sp.</i>
Woodland kingfisher	<i>Halcyon senegalensis</i>
Yellow Throated tinkerbird	<i>Pogoniulus bilineatus</i>
Speckled tinkerbird	<i>Pogoniulus scolopaceus</i>
Green Headed sunbird	<i>Cyanomitra verticalis</i>
Blue-Headed sunbird	<i>Nectarinia alinae</i>
Yellow Bellied wattle eye	<i>Dyaphorophya concreta</i>
Grey-Headed dove	<i>Leptotila plumbeiceps</i>
Fork Tailed drongo	<i>Dicrurus adsimilis</i>

Human activities

Signs of illegal hunting activities within the survey areas were widespread (Table 3 & 4). Unfortunately no CRNP rangers were encountered in the Park during the duration of the survey. A total of 82 wire snares and 46 empty cartridges were removed from the National Park. A large number of hunter's trails and camps were also visible throughout the forest, as was carbide ash.

Many illegal farms were encountered within the Park. Clearing of proposed new farmland near Okwa I was also observed, as were a large number of existing illegal farms near Bumaji. These results demonstrate that farm encroachment continues to be a major problem.

Table 3: Evidence of Hunting

Date	No. of empty cartridges	No. of wire snares	No. of gunshots heard	Carbide Ash	Hunters Encountered
Deecember 2006	38	62	0	1	0
January 2007	6	14	4	1	0
March 2007	2	6	0	1	2

Table 4: Observed Hunting Camps and Farms

Date	Location	Comments
10/12/06	GPS n/a	“Ntia Cave”, wire snares, chimpanzee hair, bird feathers and small animal bones
12/12/06	GPS n/a	“Mr. Ogwa’s Camp”, group of 10-15 women from Okwa I were encountered using the camp for collecting salad and banana within protected areas.
10/01/07	N06° 20.727’ E09° 13.158’	‘Baka Camp’: 3 sheds, fire pits, banana and orange trees
11/01/07	N06° 20.900’ E09° 14.529’	1 shed, fire pit, signs of hunting and bush mango activities
12/01/07	N06° 18.183’ E09° 18.892’	Cocoa farm belonging to Mr. Umphra of Okwa: 1 shed, fire pit, evidence of cane rat meat, avocado, banana, pepper, cola nut, palm-wine
13/01/07	N06° 18.496’ E09° 19.001’	Hunting spot and trail, evidence of empty cartridges and carbide ash
13/01/07	N06° 18.765’ E09° 18.787’	Cut firewood, fire pit, 1 destroyed shed, banana trees, pepper leaves, cooking pots, on path to Balegete
10/03/07	N06° 26.308’ E09° 16.049’	Agabo Stream, fire pit, fishing activities and hunting for snails (Sept.-Nov.)
10/03/07	N06° 25.550’ E09° 16.764	Fire pit near Matche stream
12/03/07	N06° 24.927’ E09° 17.555’	“Ntsa Camp”, shelter, fire pit, 2 beds, cooking pots, wire snares, snail shells, fising activities, crab shell, suspected to

		belong to Mike from Bagabo.
--	--	-----------------------------

Discussions with villages

Prior to the final survey in March 2007, the research team consulted hunters/villagers in Kakwe Bebo, Bajiki, Bakie, Yangwebe and Otchakwe to gather information on gorillas near Bumaji. The following was reported:

-Emanuel Oshibeka of Bagabo stated that he saw 2-3 gorillas in Namatchia forest.

-Raphael Otu of Bagabo stated that he saw 5 gorillas in Matche on February 8 2007.

-Otsu Ichiba of Otchakwe stated that he saw a group of gorillas in October 2006 near Matche and Yatche ranges.

-Akai James of Yangwabe stated that gorillas destroyed his plantain crops in his farm near Agabo Range in December 2006.

-Alex Otu, Peter Oshioka and Raymond Inga of Yangwebe saw old gorilla dung and breakings near "Nkwey Camp Area" in January 2007.

Meetings with the research team and community members of Okwa and Bumaji villages were also used to educate the people about Park objectives and urge them to cooperate and jointly protect the Park. The villages were receptive and the following questions and concerns regarding conservation were discussed: Resettlement of villages within the Park, the construction of new roads, crop raiding (government compensation), future employment opportunities (protection, research, eco-tourism), cooperation between communities, forest exploitation (hunting/farming), sustainable development and alternative income generating activities. Also discussed was any evidence of gorilla encounters/sightings.

In Bumaji local farmers informed researchers that gorillas, monkeys and chimpanzees continue to destroy food crops on farms outside the park. It was suggested that evidence of gorillas was most prevalent during the wet season, specifically August and October. Farmers were encouraged not to threaten/kill gorillas found on their farms and subsequently educated on the protection of the critically endangered Cross River gorilla.

GPS Coordinates

Temporary Research Camp in Matche (Bumaji)
200m south of N06° 25.550'; E009° 16.764'

Park Boundary (Pillar 1 and 2) near Yangwebe settlement and Busi trail
N06° 26.286'; E009° 16.052'

Onyo Range (gorillas pass west-east between Matche and Yatche ranges)
N06° 25.366'; E009° 16.842'

Conclusions and Recommendations

- More comprehensive and long-term studies are required to learn more about Cross River gorilla distribution and ranging behavior in Cross River National Park. The CRNP-Takamanda area is the largest single Cross River gorilla site and therefore an important core area for gorilla conservation.
- Further survey work is needed to help determine possible connections between subpopulations in the Mbe Mountains, the Okwangwo Division and the Takamanda Forest Reserve in Cameroon.
- Evidence of gorilla activities in Okwa and Balegete forest supports previous reports suggesting the movement of Cross River gorillas in these ranges during the dry season.
- The presence of gorillas in the Mache valley east of Bumaji in the Boshi Extension area of Okwangwo was confirmed. Future surveys at Bumaji (including Yatche) are recommended.
- The presence of gorillas in the Boshi Forest area, south-west of Bumaji, is yet to be determined. A reconnaissance survey of the Boshi Forest is required.
- The absence of gorilla activities in the areas surveyed between Okwangwo and Okwa may be due to human disturbance and the flat, open nature of the terrain.
- More effective enforcement of existing Park laws against hunting and farming by park rangers is urgently needed. The suspension of forest protection initiatives near Okwangwo needs to be reviewed.
- More aggressive patrolling efforts, including the destruction of illegal huts/camps/farms and arrests of trespassers are required to decrease illegal human activities in CRNP.
- Many community members were found to have a negative impression of CRNP staff. For more effective protection of the forest increased levels of cooperation and improved communication between CRNP staff and communities both within and surrounding the Park is required.
- Human – wildlife conflict such as crop-raiding, needs further investigation. Increasing levels of human encroachment is expected to intensify such problems.
- Discussions with local hunters indicated that men continue to hunt for a variety of reasons (including lack of jobs/money and desire to eat bushmeat). These reasons among others, need to be addressed for hunting activities to be successfully reduced.

References

CRNP (2005a): First Quarterly Report on Gorilla Survey of the Okwangwo, Okwa, Balegete and Mbuli Areas of Cross River National Park. Research Report No. 1, April 2005

CRNP (2005b): Second Quarterly Report on Gorilla Survey of the Okwangwo, Okwa, Balegete and Mbuli Areas of Cross River National Park. Research Report No. 2, July 2005

CRNP-NCF-WCS (2005): A Gorilla Reconnaissance Survey of the Okwa Hills, Okwangwo Division, Cross River National Park. Research Report No. 3.

Obot, E. (1996): Primates of Cross River National Park, Okwangwo Division, Biological Research and Scientific Monitoring Activities.