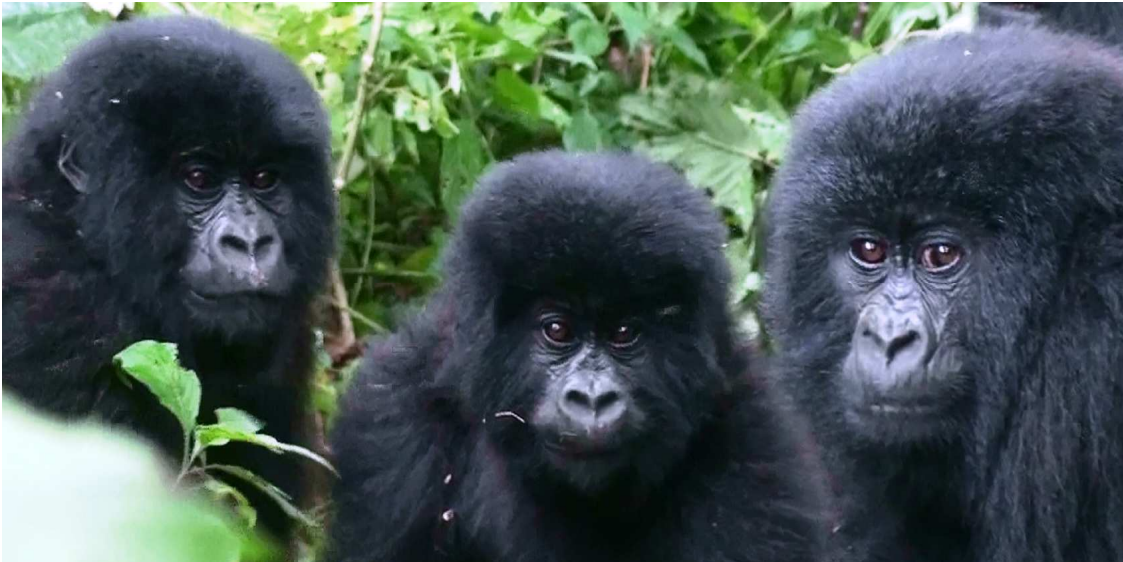


## **PRELIMINARY REPORT:**

# **POPULATION SURVEY OF HABITUATED MOUNTAIN GORILLAS IN VIRUNGA NATIONAL PARK**

*26 January 2009*



## **Acknowledgement**

ICCN should like to thank its partner organizations for support in the implementation of this survey: the International Gorilla Conservation Programme, the Africa Conservation Fund (UK), the Wildlife Conservation Society, the Zoological Society of London, World Wildlife Fund and the Frankfurt Zoological Society.

## **SUMMARY**

This preliminary report presents the results of a census of habituated mountain gorillas undertaken by Congolese Wildlife Authority (ICCN) rangers in Virunga National Park, eastern Democratic Republic of Congo.

Rangers located gorilla family groups and solitary gorillas, nests were counted, and individuals identified. The habituated population was found to have increased from 72 to 81 mountain gorillas, representing a growth of 12.5% compared to the last census in August 2007.

## **BACKGROUND**

Virunga National Park in the Democratic Republic of Congo is home to more than 200 of the world's mountain gorillas. It is Africa's oldest national park, founded in 1925, and is managed by the Institut Congolais pour la Conservation de la Nature (ICCN). The population of mountain gorillas is found in the Mikeno Sector, an area covering 250 km<sup>2</sup> in the Virunga Volcanoes Range. Following the habituation of several groups of gorillas in the late 1980s and early 1990s, a tourism and monitoring program overseeing the habituated gorillas has been run by ICCN rangers.

Virunga National Park has been plagued by war and political unrest in the past decade. In the period between September 2007 and November 2008, ICCN rangers were unable to access the Mikeno Sector for political reasons. The full monitoring of the 72 habituated mountain gorillas ceased. In November 2008, a change in the political situation allowed for ICCN staff to return to the Mikeno Sector after a 15 month absence in order to restart the gorilla monitoring program.

The first step was to relocate every habituated gorilla group and undertake a census of known and identifiable gorillas. This report presents the preliminary results from this process and is an update to previous population surveys in 2003 (The Virunga Volcanoes Range Mountain Gorilla Census) and in August 2007 (ICCN Report).

## **METHOD**

Survey teams were deployed in the Mikeno Sector between 25 November 2008 and 22 January 2009.

When nest sites were found, nests were counted and GPS coordinates taken. Once a team located a gorilla group, GPS coordinates were again taken and observations made for 1 hour. Individual identifications were made by rangers familiar with the gorillas using notes and noseprint drawings from the last period of gorilla monitoring in 2007. The

visible presence or absence of each individual during this hour was noted. When possible, repeat visits were made over different days.

A photograph showing the noseprint of each gorilla was taken for future reference. New and unknown individuals were also photographed, with noseprints drawn and notes taken on general characteristics. Following ICCN protocol, new gorillas were ascribed the names of deceased rangers.

The survey team also recorded the GPS coordinates of illegal poaching activities within the park. In particular, this included snares which they destroyed.

The GPS coordinates on gorilla groups seen were mapped using ArcGIS software, with the help of the WWF team in Goma. Observed poaching activities were also mapped with this method. Photographs and noseprint drawings are currently being processed and compiled for the gorilla monitoring program and future studies.

## RESULTS

Six habituated groups and 3 solitary silverbacks were found, totaling 81 individuals. Compared to the last total count of 72 habituated gorillas in August 2007, this represents a 12.5% increase in 16 months.

(See Appendix 1 for a detailed table of identification data.)

**Table 1: Summary of Results**

FAMILY	AGE CATEGORIES *								NOTES
	GROUP SIZE	SB	BB	ADF	SAM	SAF	JUV	INF	
RUZIRABWOBA	1	1	-	-	-	-	-	-	Solitary silverback
RUGENDO	9	2	3	-	-	2	2	-	2 immigrations of solitary silverbacks; 1 immigration from Humba
MAPUWA	14	2	-	4	2	-	2	4	2 births; 1 emigration to Lulengo, 1 immigration of solitary silverback
LULENGO	7	1	-	4	-	-	-	2	2 births; 1 immigration from Mapuwa
KABIRIZI	33	1	2	9	5	3	4	9	5 births; 2 missing; 2 emigrations to Humba
HUMBA	10	1	1	3	-	1	2	2	2 immigrations from Kabirizi; 1 emigration to Rugendo; 1 immigration from unhabituated
MUNYAGA	5	3	-	1	-	-	-	1	1 birth, 1 missing
KARATEKA	1	1	-	-	-	-	-	-	Solitary silverback
BUHANGA	1	1	-	-	-	-	-	-	Solitary silverback
<b>TOTAL</b>	<b>81</b>	<b>13</b>	<b>6</b>	<b>21</b>	<b>7</b>	<b>6</b>	<b>10</b>	<b>18</b>	

\* SB:Silverback, BB:Blackback, ADF:Adult Female, SAM:Sub-adult Male, SAF:Sub-adult Female, JUV:Juvenile, INF: Infant

## **Humba Group**

The group has increased from 10 to 11 gorillas. This includes the arrival of two new individuals who have immigrated from the Kabirizi group: Gashangi and Bonane. The sub-adult female Lubutu was missing, but was later found to have emigrated to the Rugendo Group.

The Humba group now consists of 1 silverback (Humba), 3 adult females (Magori, Gato et Gashangi), 1 blackback (Nyakamwe), 1 sub-adult female (Bonane), 2 juveniles (Matembela et Mahindure), and 2 infants (Semakuba et Kanyarwunga).

## **Kabirizi Group**

The group has increased from 31 to 33 gorillas. This results from 2 gorillas found missing (Kangugo and Gasusa), 1 immigration of an unhabituated gorilla (named “Bigohe”), 2 emigrations to the Humba Group (Gashangi and Bonane), and 5 new births by the following females: Mivumbi (infant named “Renzaho”), Janja (“Kasayi”), Tumaini (“Nsekanabo”), Kayenga (“Kabwana”), and Bigohe (“Gatoto”).

The Kabirizi group now consists of 1 silverback (Kabirizi), 9 adult females (Mapendo, Rubiga, Janja, Mahisho, Karibu, Kayenga, Tumaini, Mivumbi et Bigohe), 2 blackbacks (Jeshi et Bageni), 8 sub-adults (Masibo, Kanyalire, Mesi, Kanamahalagi, Kitagenda, Maheshe, Ruzuzi et Mafuko), 4 juveniles (Kwibesha, Rwubaka, Mutazimiza et Ntibahanana), and 9 infants (Kamoso, Kabila, Kazi, Serundori, Gatoto, Renzaho, Kasay, Nsekanabo, Kabwana).

Interactions between Humba and Kabirizi were observed and further migrations between the groups could be expected.

## **Rugendo Group**

The group has increased from 5 to 9 gorillas. This results from the immigration of 2 solitary silverbacks (Pili-Pili and Bukima), 1 sub-adult female from the Humba group (Lubutu), and 1 unhabituated sub-adult female (named “Bariyanga”).

The Rugendo group now consists of 2 silverbacks (Pili-Pili and Bukima), 2 blackbacks (Kongomani and Baseka), 2 sub-adult females (Lubutu and Bariyanga), and 2 juveniles (Bavukahe and Noel)

The two silverbacks appear to still be contesting the leadership of this group and superficial injuries were noted on several group members following fights. This is to be expected considering the considerable changes in the group’s dynamics since the death of

6 group members following an attack in July 2007. The group has continued its habit of crop-raiding on the outskirts of the park.

### **Mapuwa Group**

The group has increased from 12 to 14 gorillas. This results from the immigration of 1 silverback (Mvuyekure), emigration of 1 adult female (Kidole) to the Lulengo group, and 2 new births by Bitangi (infant named “Buzara”) and Kagofero (“Wathaut”).

The Mapuwa Group now consists of 2 silverbacks (Mapuwa and Mvuyekure), 4 adult females (Kagofero, Kanepo, Jicho et Bitangi), 2 sub-adults (Mambo and Bikenge), 2 juveniles (Gourba and Sebagabo), and 4 infants (Sebutimbiri, Dunia, Wathaut, and Buzara).

### **Lulengo Group**

The group has increased from 4 to 7 gorillas. This results from the immigration of an adult female from the Mapuwa group (Kidole) and 2 new births by Maganya (infant named “Mirindi”) and Bavanyuma (“Bagambe”).

The Lulengo group now consists of 1 silverback (Lulengo), 4 adult females (Mafaze, Kidole, Maganya, and Bavanyuma), and 2 infants (Mirindi and Bagambe).

### **Munyaga Group**

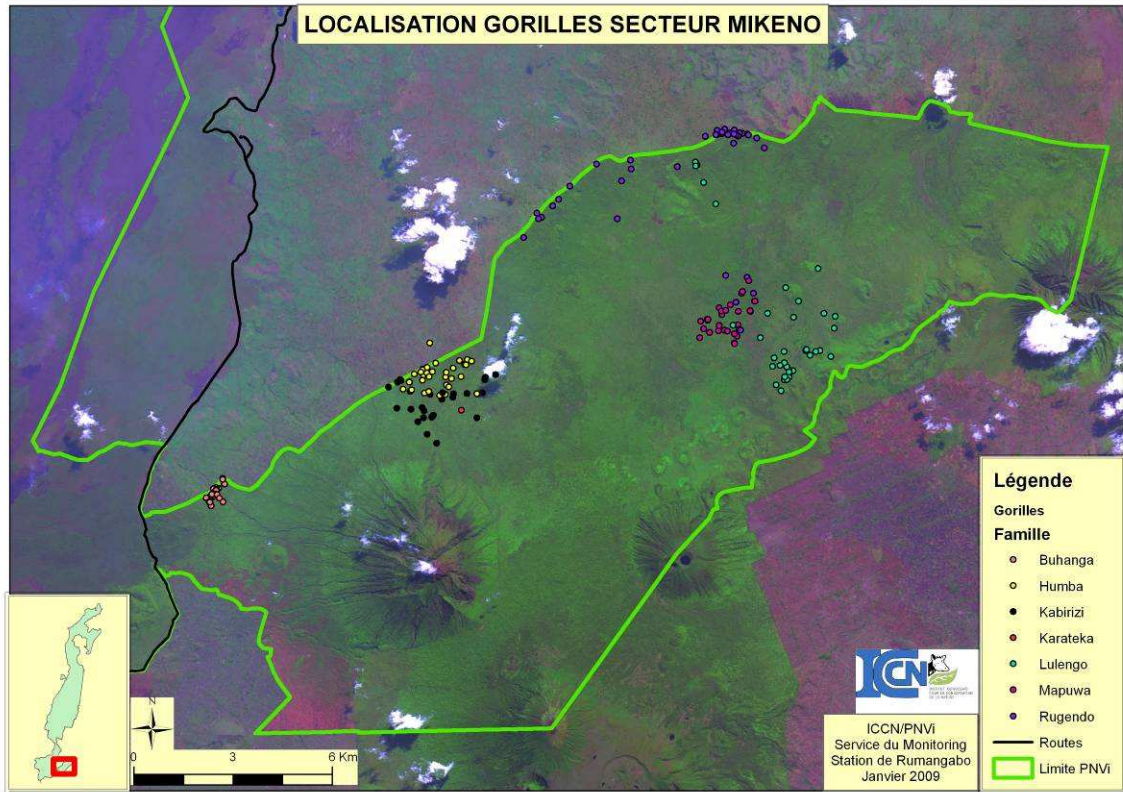
The group has remained at 5 gorillas. This results from disappearance of the silverback Munyaga and 1 new birth by the female Bilali (infant named “Kakule”). The former blackback Kadogo has now become a silverback.

The Munyaga group now consists of 3 silverbacks (Mawazo, Kasole, and Kadogo), 1 adult female (Bilali), and one infant (Kakule). It is not yet clear which silverback is dominant nor which sired Bilali’s infant.

### **Solitary Silverbacks**

All 6 solitary silverbacks were found and accounted for. Karateka, Buhanga, and Ruzirabwoba were found still as solitaries, while 2 joined the Rugendo group (Pili-Pili and Bukima) and 1 joined the Mapuwa group (Mvuyekure).

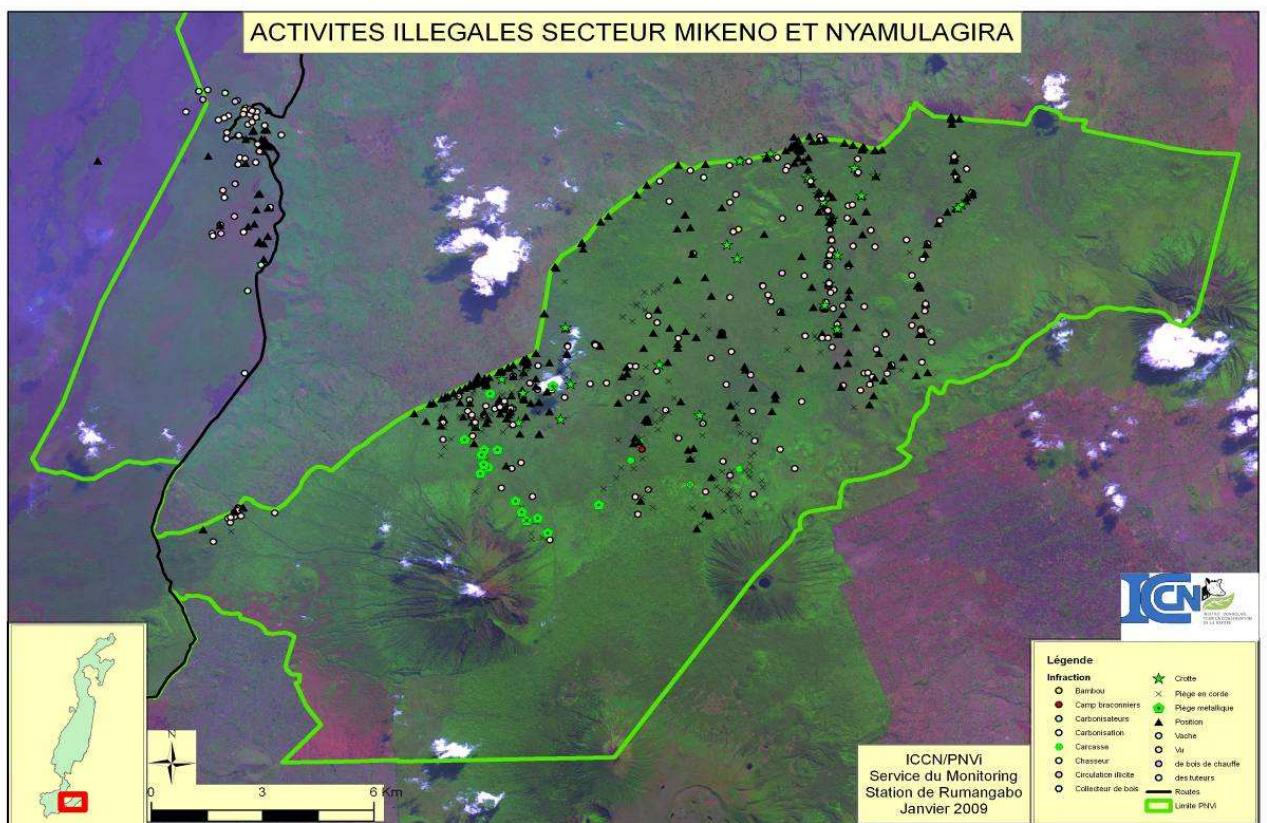
**Graphic 1: GPS Locations of Habituated Gorilla Groups (Nov 08- Jan 09)**



## Poaching Activity

A worrying level of poaching activity in the Mikeno Sector was noted during the survey. In patrols conducted during the study period, 4 poachers were arrested and 536 snares were found and destroyed. Many of these snares were found within the home ranges of the habituated gorillas, but thankfully no signs of snare-related injuries were seen.

**Graphic 2: Poaching Incidents in the Mikeno Sector (Nov 08 – Jan 09)**



## **DISCUSSION**

Although the 12.5% increase cannot be solely attributed to natural growth (since some of the increase is due to immigration from unhabituated groups), we can infer that the gorilla population as a whole in the Mikeno Sector may have experienced a comparable increase, especially if we consider that the 3 missing gorillas may well have migrated into the unhabituated population. A comprehensive census as consistent in method and intensity as the 2003 study completed by the Wildlife Authorities of DR Congo, Rwanda and Uganda would be required to establish the status of the total gorilla population in the Virunga Volcanoes Range.

This population survey marks the resumption of ICCN activities in the Mikeno Sector and is the first step in a continued gorilla monitoring program. The habituated groups are now all located and are being monitored on a daily basis. Patrols are also being sent out in an attempt to find the 3 missing gorillas.

The encouraging results presented in this report are tempered by the disturbing levels of poaching observed during the survey. The absence of ranger patrols appears associated with a substantive increase in snares. The removal of more than 500 snares during this survey is followed by further anti-poaching patrols that are now being undertaken by ICCN rangers and that will continue on a regular basis.





**KABIRIZI GROUP**

**Gorillas Seen and Identified (1= positive ID)**

Date	Nest Count	Kabirizi	Bigohe	Janja	Karibu	Kayenga	Mahisho	Mapendo	Mivumbi	Rubiga	Tumaini	Bageni	Jeshi	Kanama halagi	Kanyalire	Kitaganda	Kwibesha	Mafuko	
26/11/08	26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27/11/08	X	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28/11/08	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30/11/08	25	1	1	1	0	1	1	0	1	1	0	0	0	1	1	1	1	1	1
01/12/08	25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
02/12/08	23	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	0	0	0
03/12/08	25	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1
04/12/08	x	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
08/12/08	x	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
09/12/08	x	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1
12/12/08	23	1	0	1	1	1	1	0	1	0	1	0	1	0	1	0	0	0	1
13/12/08	25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18/12/08	x	1	1	1	0	1	0	0	0	1	0	1	1	0	1	1	1	1	1
09/01/09	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

**Continued: Gorillas Seen and Identified (1= positive ID)**

Maheshe	Masibo	Ruzizi	Kazi	Mesi	Mutazimiza	Ntibahana	Gatoto	Kabila	Kabwana	Kamoso	Kasai	Nsekababo	Renzaho	Rubaka	Serundori	Kangugo	Gasusa	Total
0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	17
0	0	1	0	1	0	0	0	0	1	0	1	1	1	1	0	0	0	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	17
1	1	1	0	1	0	0	1	1	1	1	1	0	1	1	0	0	0	12
1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	17
1	1	0	0	1	0	0	1	1	1	0	1	1	1	1	1	0	0	12
1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	0	0	15
1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	16
1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	16
1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	0	0	15
0	1	1	0	1	0	0	0	0	1	0	1	1	1	1	1	0	0	11
1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	0	0	17
0	0	1	0	1	0	1	1	1	1	0	1	0	0	1	0	0	0	11
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	17