

Survey of Chimpanzees in the Virunga Park and the potential corridor to Mt Hoyo



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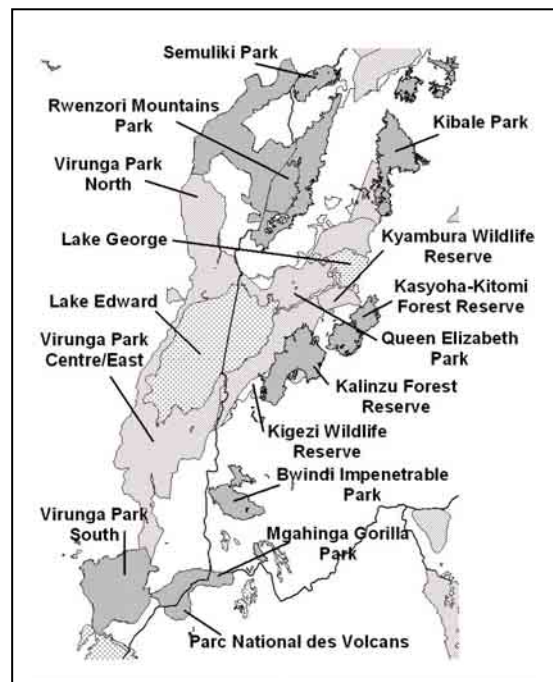
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Introduction

The Virunga Park contains a mixture of habitats including wetlands, savanna grasslands, woodland and lowland and montane forest. The forested areas occur in the south of the park in the Virunga Volcanoes and around the active volcanoes, along river courses in the central and eastern sectors of the park and the largest block occurs in the northern half of the northern sector of the park (fig 1.). Chimpanzees are known to have historically occurred in the Tonga region to the north of the forested part of the southern sector, along the Ishasha river and also in the lowland forest of the northern sector and part way up the Rwenzori massif. The continued presence of chimpanzees in Tonga and along the Ishasha River has been confirmed recently (FZS and WWF pers. comm..) but little is known about numbers at these sites or the abundance of chimpanzees in the northern sector. The northern sector of Virunga Park is also connected to the Ituri forest through a forest corridor to the north west. This links the park to Mt Hoyo Reserve, a Wildlife Reserve, which is of interest from a biodiversity conservation standpoint and because it contains large caves with bat colonies. A proposal was made in the 1960s to link Virunga Park to Mt Hoyo (Verschuren, 1993) but this was never attempted seriously. Lowland forest still links these two sites however, and there is still the potential to create this corridor more formally (fig. 2.). There is a need to survey this region to assess its conservation importance and whether a corridor should be gazetted.

Figure 1. The Greater Virunga Landscape (GVL) showing the location of the Virunga Park. Dark grey areas indicate forest and light grey savannas. Chimpanzee population estimates have been obtained for Uganda's forests in the GVL but not the Virunga Park component



The forested areas of Virunga National Park have been difficult to visit because of rebel activity since the early 1990s. The ADF (Allied Democratic Front – NALU in DRC) rebels have occupied the Semuliki forest region in northern Virunga Park for many years and have occasionally invaded parts of Bundibugiyi and Rwenzori Mountains National Park in Uganda. In the south of the park there have been *Interahamwe* groups and *Mai Mai* rebels in parts of the active volcanoes, Nyamulagira and Nyiragongo. Recently it became possible to start working in the Semuliki forest area and for a while it was also possible to work in the active volcanoes area (at the time this proposal was made). Since September 2007 however, a rebel group led by Laurent Nkunda has occupied the southern forested part of Virunga park around the active volcanoes and in the Virunga massif also. The security situation is improving at the moment and we are monitoring the situation. We still hope to enter the Nyiragongo area if we can before the end of the project.

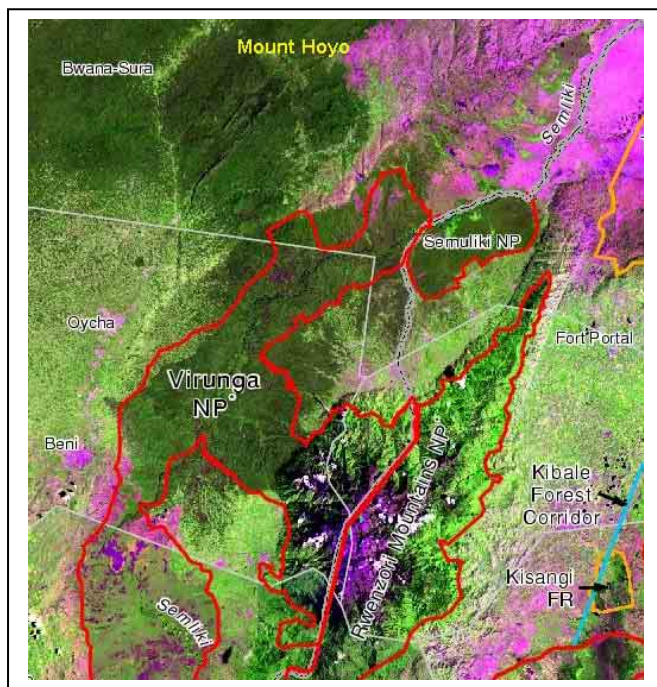


Figure 2. The location of Mt Hoyo to the north of Virunga Park showing the existing forest connection (satellite imagery from 2003).

Project Goals and Objectives

The overall goal of this project is to assess the impact of the civil war on the forested areas of the Virunga Park with particular attention to the chimpanzee population and to assess the possibilities of expanding the park to encompass the forest corridor to Mt Hoyo.

Specific objectives include:

1. Survey large mammals, particularly chimpanzees, birds and plants in the forest on the active volcanoes, riverine forest, and the northern block where security conditions allow
2. Undertake an aerial mapping of the potential corridor area to Mt Hoyo to assess current human impacts and where boundaries of any corridor might pass.
3. Where possible survey parts of the corridor area to assess its importance for conservation and make a proposal to Government of DRC about whether corridor should be created or not. In addition provide some basic equipment for rangers operating on Mt Hoyo.

Progress to date

Chimpanzee surveys

Surveys of the Semuliki forest area have been completed during January-February 2008. We surveyed seven sites within this forest block covering all of the northern forested part of the Virunga Park. A total of 72.7 km of transect were walked to assess chimpanzee abundance in this forest. Chimpanzee nests were found at five of the seven sites and a total of 257 nests were counted giving an encounter rate of 3.5 nests per km walked. These data are still being cleaned and analysed but using the equation relating encounter rates to chimpanzee density for various forests in Uganda we would predict about 1.66 chimpanzees per km² from these numbers (Plumptre and Cox, 2006).

We had planned to also survey Mt Hoyo and the corridor region between the park and Mt Hoyo but the day the teams were due to enter the region there was a rebel attack on some villages near Mt Hoyo. We will monitor the situation and try again when local people believe it is likely to be ok.

A team will be visiting forest along the Ishasha River in late March 2008 and we hope that the security situation in the southern sector will improve sufficiently to allow surveys of the Nyiragongo region in May.



Figure 3. Poacher's camp being destroyed on one of the transects used to census chimpanzees.

Biodiversity surveys

Data on plants, amphibians and birds were also collected during the surveys in the Semuliki forest region. Point counts of birds were made at each site and a total of 276 point counts were made across all sites. Total species lists were also compiled for each site. Plant plots were measured at most of the same point counts and also total lists compiled for each site. 32 amphibians were collected at four sites to provide a list of frogs for this region of Virunga Park. Data are being entered in the computer now and will be analysed in April 2008.

Aerial surveys

The northern part of the park and the extension towards and around Mt Hoyo have been mapped with aerial photographs in late February 2008 (figure 4). This activity was delayed because of the weather conditions in November and December which prevented the flights taking place as planned.

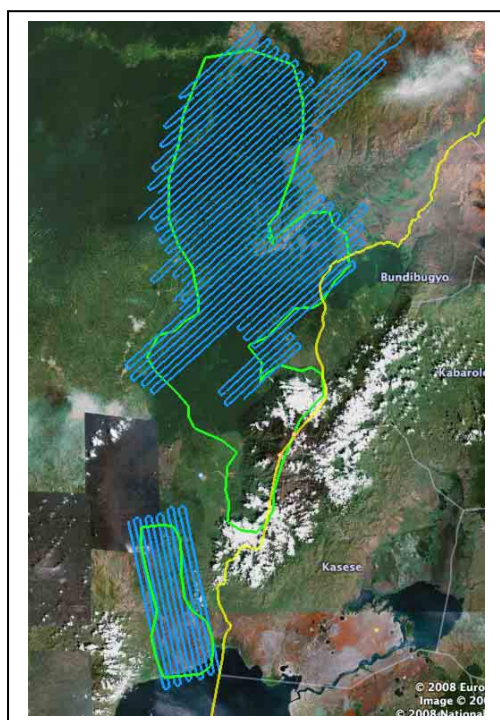


Figure 4. Flight lines for aerial mapping of northern Virunga Park and the extension to Mt Hoyo.

The images will be mosaiced using ENSO Mosaic software in April 2008 and then on screen digitizing will be used to map where people are present and cultivating, roads and buildings so that we can assess the potential boundaries of any corridor that might be created.

Activities over the remaining period of the project

We plan to survey the Ishasha forest area in the near future (late March 2008) as it is relatively secure for the moment. We are monitoring the situation in the active volcanoes region and hope to be able to survey this region in April/May if safe enough.

The Enso Mosaic mapping will take place in April 2008 and the product will form the core of the proposal to ICCN to extend the park to include the forest that would link to Mt Hoyo. We still hope to survey the corridor area if security allows before the end of July 2008.

References

- Plumptre, A.J. and Cox, D. 2005. Counting primates for conservation: primate surveys in Uganda. *Primates* 47: 65-73
- Verschuren, J. 1993. Les Habitats et la Grand Faune. Évolution et Situation Recente. *Exploration du Parc National des Virunga (Zaire) Fascicule 29* ; pp 133.