



# ***Gorilla Journal***

*Journal of Berggorilla & Regenwald Direkthilfe*

*No. 36, June 2008*



**World's Rarest  
Gorilla Finds  
Sanctuary**

**The Gorillas of the  
Ebo Forest**

**Advantages and  
Disadvantages of  
Ape Research and  
Tourism**

**Club Ebobo –  
Conservation  
Education**



# BERGGORILLA & REGENWALD DIREKTHILFE

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### Gorilla Journal 36, June 2008

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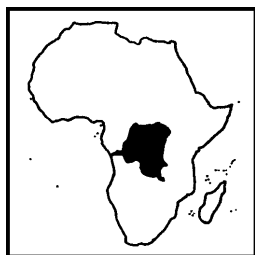
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## D. R. CONGO

### The Liberation of the Kahuzi-Biega National Park Corridor

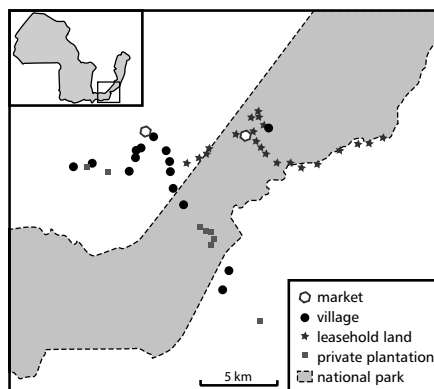
The liberation of the Kahuzi-Biega National Park (KBNP) corridor requires decisiveness and cooperation from the Congolese State, and also from the international community. The KBNP is not only a national treasure, but a treasure of humanity: a World Heritage.

This park is unique in sub-Saharan Africa in that it has a corridor that connects the park's high-altitude forest with the forest at lower altitudes. This is one of several characteristics which have resulted in the park being included on the list of World Heritage Sites.

In addition to serving as a link between the two KBNP forest blocks, the corridor also enables animal migration between the low and high altitude areas. Migration is particularly important for key species of the area, whose presence was an important factor in the decision to gazette the protected area: without the capacity to migrate, these species would be threatened by inbreeding.

Unfortunately, the KBNP corridor has been encroached upon several times since 1990. Farms and mining concessions have been established in the corridor with the approval of certain state authorities which should (but do not) cooperate with the *Institut Congolais pour la Conservation de la Nature* (ICCN).

When war returned to the region in 1996, armed bands took up their abode in the corridor, preventing park staff from doing their work. With the support of some greedy citizens, they devastated the habitat and polluted the rivers. It is now estimated that 60% of the corridor has been degraded since 1996. At this rate, we fear that key species, some of which are already on the *IUCN Red List of Endangered Species*,



#### Encroachment of the corridor

will become extinct – such as the eastern lowland (Grauer's) gorilla.

In search of allies, and in order to safeguard their farms, the illegal occupants of the corridor are inciting the nearby population to oppose the park. The park has already started to counter this by engaging with the population as part of the park's community conservation approach. Relations between the park and the neighbouring population are, however, no longer stable. As the corridor is occupied by armed bands, the park staff can no longer patrol this part of the park.

In September 2000, when the park attempted to recover the occupied territory and demarcate the park boundaries, the team was attacked at night and 10 team members were killed.

We have summarized the factors threatening this World Heritage site as follows:

1. Loss of World Heritage Site status if the key species disappear from the area;
2. Termination of support from project partners;
3. Loss of face of the Democratic Republic of the Congo at the international level;
4. Loss of jobs, as the KBNP is an important employer in the region (over 200 permanent and temporary employees per year);

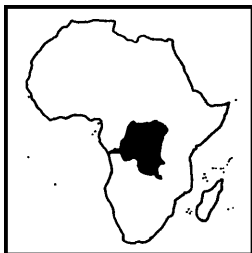
#### 5. Loss of biodiversity.

At the local level, we have tried to find solutions to the invasion of the corridor by farmers, armed bands, miners and others:

- We have conducted an enquiry into the consequences of the conflict between the park and the neighbouring population, with the assistance of the eldest son of the tribal chief of the administrative unit through which the corridor passes. This enquiry determined that it is the illegal farmers who are inciting the population to oppose the park.
- Several meetings were organised for the purpose of achieving cooperation and conflict resolution.
- Three inter-ministerial commissions were set up in 1995, 1999 and 2000, and subsequently participatory mapping activities took place in the field in order to determine the borders of the corridor section of the park.
- Support has been agreed upon that will contribute to the economic development of the population living close to the park.
- Reports on the current situation of the corridor need to be made to competent authorities.
- On request from the ICCN authorities, 12 land contracts were declared invalid by the provincial authority in 2002. Yet the Land Titles Authority has issued new contracts for land in the corridor, and the holders of the initial contracts – since declared void – have re-sold them to certain persons and big businessmen who think they are untouchable!

We consider that the following concrete actions are necessary to ensure the continued existence of the corridor:

- At the national level:
- The central Government needs to make its position on the protection of the corridor clear.
  - The contracts for concessions in the interior of the park need to be permanently annulled.



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- The irregular forces need to be driven out of the corridor without delay.
- An active group of coordinated state authorities concerned with corridor issues needs to be established.
- State and army authorities need to be involved in the protection of the park.
- The ICCN needs to be made a member of the provincial security council.
- The implementation of the park boundaries has to be followed up.

At the international level – considering that the KBNP is already a UNESCO World Heritage Site, and that UNESCO is a branch of the UN, then:

- a) The UN should include the liberation of the corridor in particular – and the protection of the entire park in general – in the MONUC mandate.
- b) Park staff should carry out patrols from the air to facilitate a survey of the current status of the site.

### Illegal Tourism in the Virunga National Park

Since September 2007, the Mikeno Sector has been under the control of the CNDP rebels, who are led by Laurent Nkunda. In February 2008, they started to take tourists coming from the neighbouring countries to see the gorillas. At that time it was assumed that they took about two groups per week. Obviously, the basic regulations are not being adhered to. A former ranger joined the rebels and organized the illegal tourism.

The revenues from tourism in the Mikeno Sector are used to fund the rebel troops – gorilla conservation is not supported. There is no legal gorilla tourism in the Congolese part of the Virunga Volcanoes at the moment.

Conscious of and spurred into action by the cries of alarm from park staff, the central Government (i.e. the Ministry of Environment) last March accelerated the deployment of a team composed of representatives of the Ministry of Land Titles, the Ministry of Tourism and the Supreme Military Authority in order to gain first-hand information on the corridor problem. The authorities have promised to make necessary decisions and the stakeholders in the KBNP are impatiently awaiting these decisions. It needs to be said, however, that making promises is one thing but realizing them is something else. The KBNP staff continues to wait for the central Government – and also for UNESCO – to make the required decisions.

Our recommendation is to make haste – otherwise there will be no corridor left to save.

*Radar Birhashirwa Nishuli*

### Arrest in Connection with Gorilla Killings

On 22 July 2007, 6 members of the Rugendo group were massacred. This shocking news was published worldwide, but the reasons remained unclear in the media reports. Shortly after the killings, the Provincial Director of the ICCN North Kivu in Goma, Honoré Mashagi, was transferred to Bukavu and became Provincial Director of South Kivu.

In August, UNESCO started inquiries into what lay behind the massacre, and finally, on 18 March 2008, several persons were arrested and brought to Goma prison, one of them being Honoré Mashagi, who had been responsible for the Virunga National Park at the time of the gorilla killings. He was accused of having destroyed the flora and fauna of the Virunga National Park, and especially of being responsible for the killing of at least 6 gorillas during 2007. The indictment said that

he had created a parallel administration that included his younger brother, who organized charcoal production in the park. Two others were also detained at the Goma prison.

The report published after the arrests said that at least 7 more members of the ICCN North Kivu were also suspected of being involved in destruction in the park, charcoal production and trade, as well as killing of wildlife. Mashagi is accused of having orchestrated the killings by organizing a poacher network and using his authority to promote destruction in the national park to make money. He denies all accusations.

On 21 March, Mashagi was provisionally released from detention because of his health. As long as the investigation is not finished, he continues to work as ICCN Provincial Director for South Kivu in the Kahuzi-Biega Park.

At the end of 2007, the ICCN started, in cooperation with several NGOs, to confiscate charcoal from the park and to distribute it to the refugees living in refugee camps in the region. This led to several serious attacks on rangers by militia, who are also earning money from the charcoal business (for more details see for example *WildlifeDirect's* gorilla protection blog: <http://gorilla.wildlifedirect.org>).

*Summary of various broadcasts from Radio Okapi and other sources*

### Gorilla Deaths Spark Fears at Mount Tshiaberimu

On 10 May, 2008, Molo, one of just 20 rare gorillas living in the forests of Mount Tshiaberimu, in the northern annex of Virunga National Park, Democratic Republic of the Congo, was found dead following an illness. This is the second adult female from the Kipura group of this unique and critically endangered population to



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have died in 3 months, leaving just 19 individuals and worryingly few breeding females.

Molo last gave birth in February 2003, while Mughole, who died on February 8, gave birth in July 2007. Sadly Mughole's infant was killed the day after it was born during an interaction between the group and a lone silverback. The remaining female in the Kipura group, Kitawiterina, last gave birth in August 2006, increasing the mountain's population to 21 at the time.

Following the recent deaths the bodies were carried to the outskirts of the park, where on both occasions, vets were able to carry out autopsies. The autopsies have shown that both gorillas were suffering from high parasite loads, which is not unusual in wild gorillas, but may have weakened their immune systems. However, it is widely thought that the parasites could not have caused their death.

The *Gorilla Organization*, which manages the *Mount Tshiaberimu Conservation Project* in collaboration with the Congolese Wildlife Authority ICCN,

is liaising with *Conservation Through Public Health*, the *Mountain Gorilla Veterinary Project* and the *Great Ape Health Monitoring Unit* for the analysis of tissue samples and the further development of health monitoring programs on Mount Tshiaberimu.

The *Mount Tshiaberimu Conservation Project* was founded in 1996 for the protection of the mountain's population of 16 gorillas, which would almost certainly be extinct by now if the project had not begun when it did. While classified as eastern lowland gorillas (*Gorilla beringei graueri*), they are morpho-



*Transport of Mughole to Burusi*

### New Orphans

On 3<sup>rd</sup> January 2008, two young gorillas were confiscated in Kanyabayonga, at the border of the Virunga Park. They were named Mapendo and Vumilia. Vumilia, the older one, was severely wounded and died on 13<sup>th</sup> January. Mapendo was then transferred to the orphanage in Goma. It is assumed that the two came from the Tayna region.

logically distinct and in 1927 were classified by Ernst Schwarz as subspecies *Gorilla gorilla rex-pygmaeorum*. The Max Planck Institute for Evolutionary Anthropology in Leipzig has been analysing the DNA collected from gorilla faecal samples to resolve the debate.

The project is currently supported by the European Commission in conjunction with UNEP/GRASP, and *Berggorilla & Regenwald Direkthilfe*.

Jean-Claude Kyungu

### Gorilla Conservation at Mount Tshiaberimu

Mt. Tshiaberimu lies at the western edge of the northern sector of Virunga National Park. A total of 25 ICCN rangers and guides are working there. They now asked us for rain jackets, high-quality cotton clothes and long-lasting gumboots. When Iris Weiche had visited the area in 1997, she had handed over our donation of all this material to the park. Some rangers are still, to this day, wearing the clothes they received during this visit!

The sector of the national park that Mount Tshiaberimu belongs to has for a long time been suffering from poaching by rebels, es-

pecially the Maï-Maï; since April 2008 alone, at least 15 elephants were killed. The rangers therefore need any support they can get.

**The rangers work under the hardest conditions – we want to send them some high-quality material with your support!**

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# UGANDA

## Nkuringo Group

The Nkuringo group ranges at the edge of the southeastern part of Bwindi. Its habituation started in 1996 and was not completed until 1998; the first tourists visited the group in April 2004. A study that Michele Goldsmith started in 2001 showed that the group spent most of its time outside the park boundary. It devastated many banana plantations and also fed on Eucalyptus and sweet potato. It was up to the rangers (or the HUGO – *Human Gorilla Conflict Force* – team) to chase them out of the fields. Therefore, land was purchased and a buffer zone was created in 2003/2004, in the area which was used frequently by the group – a 12 km by 350 m stretch (4.2 km<sup>2</sup>). It has not solved the problem completely, however, as the gorillas sometimes range more than 1 km outside the park boundary.

Even now, in 2008, the Nkuringo group frequently leaves the park and the buffer zone to feed on fields; as they are habituated to humans, they are not afraid of the farmers. At the beginning of April, the gorillas camped in people's gardens for more than a week and were eating crops, as reported by Gerald Tenywa in the *New Vision*. People were compensated when the buffer zone was created and moved farther away from the park, but the gorillas followed them, and now, when



**Safari**

*Photo: Michele Goldsmith*

they destroy crops, as they frequently do, the farmers are not compensated. But there are more problems: In some cases schoolchildren do not go to school when gorillas pitch camp between the residences and the schools. Sometimes children have to stay home to watch over their farms.

To prevent the Nkuringo residents from killing crop-raiding gorillas, it was clear that they should benefit from gorilla tourism like the community of Buhoma. So they founded the *Nkuringo Conservation Development Foundation* (NCDF) in 2003 with support from the UWA (*Uganda Wildlife Authority*), IGCP and AWF (*African Wildlife Foundation*), to fund development and conservation initiatives at Nkuringo. It currently has 3,000 members (out of about 30,000 residents).

The NCDF secured the funds to build a luxury facility, CloudsMountain Gorilla Lodge, which will be managed under a partnership with the *Uganda Safari Company*. The lodge has been constructed with funds from the *United States Agency for International Development* (USAID). In April 2008, the UWA signed a contract with the NCDF and the AWF that said that 6 out of 8 permits for visits to the Nku-

ringo group each day can be sold by the NCDF's partner, the *Uganda Safari Company*.

As reported in the *New Vision* by Darius Magara, Nkuringo, the leading silverback of the Nkuringo group, died on 27 April 2008. He was very old. According to Michele Goldsmith, "he had a fight years ago that left his mouth slightly paralyzed and it made it difficult to eat – plus his teeth were getting worn to their core."

The Nkuringo group has 18 members now. One of them is the younger silverback Safari, who already took over the group leadership about 2 years ago.



**Nkuringo** Photo: Michele Goldsmith



**The blackback Africa**

*Photo: Michele Goldsmith*



# CROSS RIVER

## Nigeria's Cross River Gorilla – Dry Season Range and Related Issues

*This article reflects the personal opinion of the author.*

My study in Cross River National Park's Okwangwo Division examines what risk there is that gorillas may be hunted and killed in the region because of hostility towards them as crop-destroyers (mainly banana and plantain). An evaluation of field work and analysis of data collected so far appeared in the *Gorilla Journal* No. 35.

### Enlarged Dry Season Range

Since there is no fully accurate spatial GIS basic data of the region, it is not easy to make accurate measurements of distances between villages, gorilla dry season visits, national park boundaries, and the core of gorilla habitats. What is so far clear from the information that we have gathered is that gorillas seasonally and regularly venture

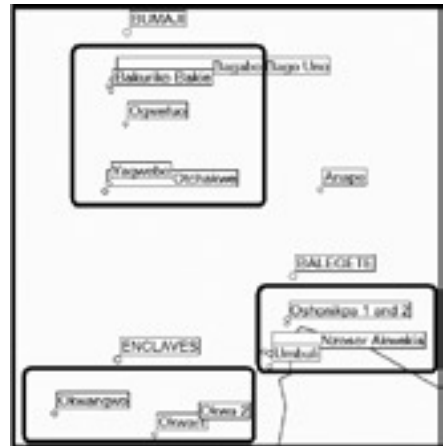
markedly closer to human settlements in Okwangwo than is acknowledged in published estimates (as illustrated for example in the *Regional Action Plan for the Conservation of the Cross River Gorilla*).

These new findings, backed up by reports from the settlements concerned, suggest that we should discuss possible redrawing of national park boundaries to cover the full seasonal ranging patterns of the gorillas, which would give the species even more adequate protection than today. Processed data, including maps, from the finished project will be made available for inclusion in the next issue of the *Gorilla Journal*.

### Relocation of Enclaves

The relocation of three enclave villages (Okwangwo, Okwa 1 and Okwa 2) was planned when the park was initially established. This is more than ever fundamental for a functioning park, and should be promoted and realized without delay, irrespective of other priorities.

**Concerned villages divided into 3 localities: Bumaji to the north, Balegete in the middle right and enclave villages in the south**



### Update of Support Zones

People in the three separate regions in and around Okwangwo have different attitudes to the present situation – involving inclusive and exclusive status – of “support zone villages”, depending mainly upon how residents experience that they are treated and respected by those in charge of such matters. It seems that the Bumaji region has a more negative attitude towards the park and conservation than the enclaves and Balegete, because 7 villages situated less than 5 km from the park have been excluded from being labelled support zone villages.

Actually, this no longer really has much meaning, except in the minds of people in Bumaji, and an overall regional policy that clarifies the relationship between the concerned authorities and the villages would be a worthwhile investment. It would doubtless be appreciated by those living next to the park who feel “left out”, even if there is not much in the way of de facto benefits to be left out from. Our evaluation, from trekking through Okwangwo, is that this accumulated dis-



View to the west over the Bumaji valley

Photo: Patrik Norberg



# CROSS RIVER

satisfaction is a major issue posing threats for renewed gorilla hunting in Bumaji.

## Visions of Afi to Kagwene

It is clear, after reading publications such as Dale Peterson's *Eating Apes*, that the few and elusive ape populations remaining in the Cross River region live in a markedly different human environment than their brethren in Central Africa. Cross River gorillas in eastern Nigeria and western Cameroon live in comparatively peaceful regions, free of the bushmeat menace – one where exploitation can potentially be satisfactorily regulated. If political and economic will can be mobilized, there is an unprecedented opportunity to preserve the whole Cross River gorilla habitat range, from the Afi Mountains in Nigeria to Kagwene in Cameroon, as a bastion for the remaining West African wildlife.

J. Erik Patrik Norberg

## Conservation in the Mbe Mountains, Nigeria

The Cross River gorilla (*Gorilla gorilla diehli*) is Africa's most endangered taxon of ape, threatened by bushmeat hunting, conversion of forest for agriculture, and small-scale logging. Recent genetic analysis suggests that the 11 known Cross River gorilla localities are not isolated from one another, but the small size and fragmented distribution of the Cross River gorilla means that the maintenance of habitat corridors is essential for their long-term survival. The Mbe Mountains in Nigeria are a critical link in the forest landscape connecting Afi Mountain Wildlife Sanctuary with the Okwangwo Division of Cross River National Park and Takamanda National Park in Cameroon.

Rising to heights of 900 m the Mbe Mountains cover an area of roughly 85 km<sup>2</sup>, with the gorillas concentrated in a central area of some 25–30 km<sup>2</sup> of ridges and valleys. The *Wildlife Con-*

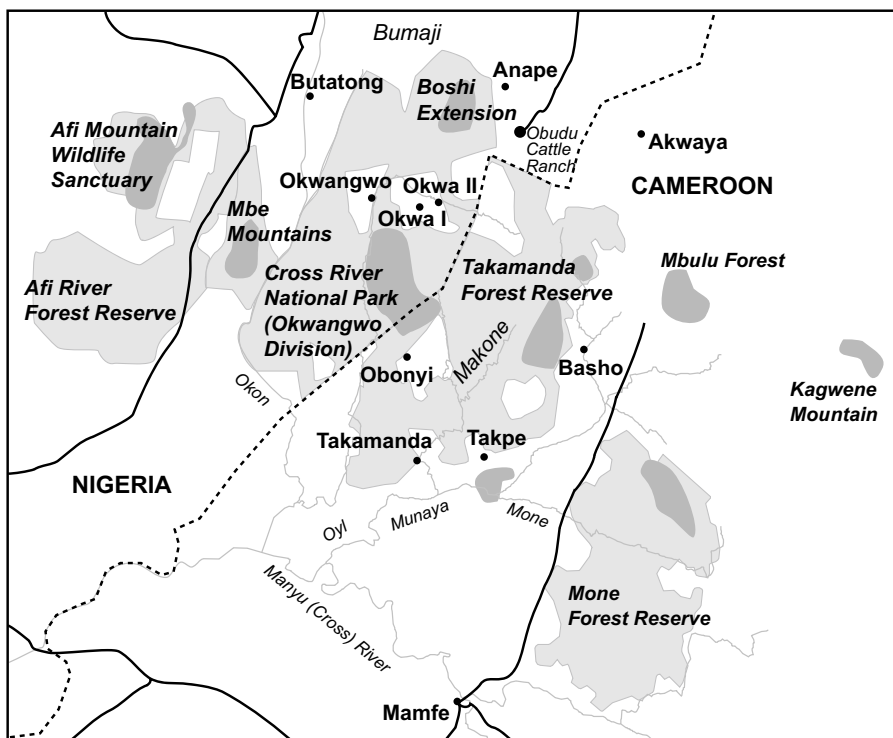


**The Mbe eco-guards**

Photo: Andrew Dunn

servation Society (WCS) has supported conservation in the Mbe Mountains since 2001; this focused initially on gorilla surveys and expanded later to include support for community-based conservation and a schools-based conservation education program. In 2005 WCS recruited a small team of 9 eco-guards from surrounding villages to help protect the area. By reinforcing existing community rules and regulations regarding wildlife management on the mountain, their presence acts to deter poaching. The team were initially based at two temporary camps high up on the slopes of the mountain, and patrol the mountain on a daily basis, collecting data on gorilla nest sites and feeding trails. In 2006 *Berggorilla & Regenwald Direkthilfe* provided funds for the construction of a permanent base camp that provided a more secure and comfortable base for the protection and monitoring work by the eco-guards. In 2008 *Berggorilla & Regenwald Direkthilfe* provided funds for a second camp and construction work is expected to start soon.

One of only three Cross River gorilla sites in Nigeria, the Mbe Mountains lack formal conservation status. For many years the communities that surround the mountain resisted all attempts to have their land annexed as part of Cross River National Park. In 2006 the 9 communities met and created the *Conservation Association of*







# CROSS RIVER

	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of empty cartridges	0	0	0	5	3	30
No. of wire snares	0	0	0	0	0	90
No. of gunshots heard	0	0	4	6	8	48
No. of hunting sheds seen	0	0	0	1	0	3
No. of hunters seen	0	0	0	0	1	5

### Signs of hunting observed per month, 2007

the Mbe Mountains (CAMM) with the intention of establishing a community-managed wildlife sanctuary for the purposes of conservation and local development. With support from WCS and others a General Assembly, Board of Trustees and Management Committee were duly created. WCS also assisted CAMM with the provisional boundary demarcation of a core conservation area, and help manage a Technical and Stakeholders Supervisory Group that exists to provide support and advice to CAMM. Funding for permanent boundary demarcation has recently been provided by Kolmården Zoo and work is expected to start soon.

Funding to support the 9 eco-guards is currently provided by the *Great Ape Trust of Iowa*, the *Margot Marsh Biodiversity Foundation* and the *Quadra Foundation*. From the two base camps a series of regular anti-poaching patrols is organized by small teams of 2 to 3 eco-guards. Each eco-guard spends two periods of 10 days on the mountain each month, separated by a rest period of 10 days. Any hunters apprehended on the mountain are reported to their village chief and to the General Assembly of CAMM, and any weapon they are



Base camp in the Mbe Mountains

Photo: Andrew Dunn

carrying is confiscated and kept under the jurisdiction of CAMM.

Although hunting has been successfully controlled during the July/August period (a peak farming season), it traditionally starts to increase from September rising significantly around Christmas when hunters look to generate cash to support the festival and also to provide meat for consumption. In an effort to counteract this growing pressure additional eco-guards are recruited over the Christmas period each year to boost the anti-poaching efforts. In December 2007 5 teams, including the 9 WCS eco-guards and the 9 cas-

Year	Wire snares	Empty cartridges	Gunshots heard	Hunters encountered	Hunters' camps/caves
2005/2006	6.3	7.8	21.9	0	0
2006/2007	18.8	1.4	8.7	1.7	1.4
2007/2008	20.8	6.9	11.1	1.1	0.7

A comparison of hunting pressure observed during Christmas patrols in 2005/2006, 2006/2007 and 2007/2008 (per 100 eco-guard days)

ual staff, were deployed on the mountain.

### Signs of hunting observed per month, 2007

Results from Christmas anti-poaching patrols over the past 3 years showed high levels of poaching, and although the frequency of gunshots has declined the use of wire snares has increased. Levels of community support remain high, and out of 5 poachers apprehended 3 were immediately fined by their respective communities. The fines ranged from N 5,000 and one crate of beer to N 10,000 and 2 crates of beer. This is the equivalent of some US\$ 60–120, a sizeable amount within the local context.

Andrew Dunn

## World's Rarest Gorilla Finds Sanctuary

The government of Cameroon announced on the 3<sup>rd</sup> of April 2008 the creation of the world's first sanctuary exclusively for the Cross River gorilla, and this is now added to the national portfolio of protected areas managed by the Ministry of Forestry and Wildlife.

The Kagwene Gorilla Sanctuary was officially created by decree of the Prime Minister of Cameroon, Ephraim Inoni, and was announced via national media. The creation of the sanctuary is the product of research and conservation action that was initiated in 2003 when researchers first realized the potential of Kagwene as a long term monitoring site for this elusive animal.

From the beginning, local community members were targeted for recruitment as gorilla monitors, and today 7 of the 9 villages surrounding the sanctuary are represented amongst the *Wildlife Conservation Society* (WCS) site-based staff who undertake daily monitoring and protection activities from a research camp perched high in the



## CROSS RIVER



**The WCS research camp and eco-guard post perched on the forest edge at 1,800 m above sea level. Cross River gorilla monitoring and protection activities are coordinated from this camp.**

Photo: Aaron Nicholas

sanctuary on the forest edge at an altitude of 2,000 m.

Our knowledge of Cross River gorilla socio-ecology is largely restricted to studies that have been conducted in both Kagwene and the Afi Mountain Wildlife Sanctuary in Nigeria, both higher elevation gorilla sites. Such studies are emphasizing a number of differences between Cross River gorillas and the western lowland gorilla (*Gorilla gorilla gorilla*), related to factors including feeding ecology, ranging and nesting behaviour. Daily monitoring of the Kagwene gorillas continues, and further insights into how the estimated 20 gorillas make use of the 19.5 km<sup>2</sup> sanctuary and adjacent forest areas are still being made, especially in relation to group dynamics and habitat use.

Work done by Richard Bergl of the North Carolina Zoological Park has also confirmed that the gorillas found in Kagwene are genetically distinct from the 10 other known sites in Cameroon and Nigeria where Cross River gorillas are known to occur. Genetic and spatial analyses have also pointed to the likely presence of corridor areas linking Cross River gorilla sites such as Kagwene across the landscape, a research subject that is developing into the next

main focal area to guide conservation action across the gorilla's landscape.

The creation of the Kagwene Gorilla Sanctuary is a further significant

step towards securing a future for the remaining 250–300 Cross River gorillas. It is now expected that the Ministry of Forestry and Wildlife will post a Conservator and eco-guards to support the management of the sanctuary. None of this could have been achieved without the crucial support of our partners including WWF, the *US Fish and Wildlife Service* (who also provided funds for an administrative office and eco-guards' post in collaboration with *Fauna and Flora International*), the *Gorilla Organization*, the *Margot Marsh Biodiversity Foundation*, the *Great Ape Trust of Iowa*, the *Boise Zoo*, *Berggorilla & Regenwald Direkthilfe* and *Columbus Zoo*. The scene is therefore set for Ministry-led management action to now take place.

Aaron Nicholas



**MINFOF staff in Kagwene: the Provincial Delegate and Provincial Chief of Wildlife for the Ministry of Forestry and Wildlife for the North West Province learning more about gorilla monitoring on a recent visit to the Sanctuary.**

Photo: WCS, Ymke Warren



## CROSS RIVER



**Kagwene Gorilla Sanctuary habitat: A view of the montane forest of the sanctuary looking towards the Mbulu forest area where Cross River gorilla are also known to occur.**

*Photo: WCS, Aaron Nicholas*

### Perspectives on Wildlife, and Wildlife Consumption, in Eastern Nigeria

Nigeria has by far the largest population of any African country, and has experienced explosive growth in human populations in recent years. Necessarily, human density increases with such growth, placing an increasing burden on the environment. Such demands typically have an adverse impact on many wildlife species, including apes and other primates, whose distribution is now limited to a few remote areas of the country.

Two states of Nigeria are of paramount importance for the future persistence of apes in the country: Cross River State, which holds the last remaining populations in Nigeria of the Cross River gorilla (*Gorilla gorilla diehli*), and Taraba state, which holds the largest remaining populations any-

where of the west-central chimpanzee (*Pan troglodytes vellerosus*). Both states contain numerous parks, reserves and community-managed forests with remnant primate populations, including Afi River Forest Reserve, Afi Mountain Wildlife Sanctuary (AMWS), Mbe Mountains & Cross River National Park (CRNP) in Cross River State, and Gashaka-Gumti National Park (GGNP) & Ngel Nyaki Forest Reserve in Taraba State. Of these, only AMWS, CRNP and GGNP offer formal protection for wildlife in the region.

The demand for bushmeat in Nigeria is considerable. Research led by John Fa, which tracks the annual bushmeat volume traded by site, species and overall in the Cross-Sanaga river regions of Nigeria and Cameroon – including the Cross River and Korup national parks – found that, in Nigeria, biomass (kg) extracted for sale per km<sup>2</sup> per year was three times greater (600 kg/km<sup>2</sup>) than in Cameroon. The

study estimated that approximately 900,000 reptiles, birds and mammals were sold each year by the rural and urban population, corresponding to around 12,000 tonnes of terrestrial vertebrates.

Although these numbers seem high to some observers, demand is undoubtedly strong, and the drivers diverse and complex. Bushmeat may be an important element of the diet for rural populations that are food-insecure and cannot afford to buy meat, and people whose diet consists primarily of carbohydrates may hunt for bushmeat either to supplement their intake of protein or to fulfill it completely. Additionally, there are sectors of the population, those who are not in extreme poverty, who buy bushmeat as a luxury item or as a cultural preference to domestic meat. Whatever the reasons, it seems unlikely that current levels of bushmeat consumption in the region are sustainable.

We have worked in GGNP since 2003, where populations of wildlife throughout the park decreased notably between the 1970s and 2002 (Chapman et al. 2004), partly due to periods of uncontrolled hunting, and partly to outbreaks of rinderpest, which spread to wildlife populations from domestic cattle. Despite these major declines in wildlife, numerous primate species continue to be found at GGNP in high densities over large areas, and on a typical 12 km walk along one of the park's main roads, from Kwano to Gashaka, many primate groups are encountered commonly, including baboon (*Papio anubis*), tantalus monkey (*Chlorocebus tantalus*), mona monkey (*Cercopithecus mona*), putty-nosed monkey (*Cercopithecus nictitans*) and black and white colobus monkey (*Colobus guereza*). Chimpanzees are also relatively abundant, with estimates of the remaining chimpanzee population varying between 1,000 and 2,000. New chimpanzee surveys are needed how-



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ever, as a number of the forests surveyed for chimpanzees in the mid- to late 1990s are no longer in the condition they were in at that time. In addition to our work in GGNP, one of us (JH) has also visited a number of sites in Cross River State between 2005 and 2008, including AMWS, Mbe Mountains, and CRNP. During these visits very few wild primates were observed or heard.

It is a temptation then for us, working primarily in Taraba state, to compare and contrast the situation there with that found further south in Cross River. Major differences in habitat type between the two regions are present. Cross River is in the true rainforest zone, whereas Taraba straddles the forest-savannah transition zone. There are additionally several important human demographic and cultural differences between the two regions, deriving from the fact that Taraba state is part of the old Adamawa Emirate, a subordinate kingdom of the Fulani Sultanate of Sokoto. The Fulani conquered the Hausa kingdoms of the region in 1806, bringing with them the word of Islam. More locally, there are a large number of distinct ethnic groups that live within GGNP and the immediate surrounding region and the population of many settlements reflects this diversity. Population densities in the state remain extremely low (42/km<sup>2</sup>) compared with the country as whole (152/km<sup>2</sup>), and there are few large urban centres within the region.

When the Gashaka and Gumti game reserves were first developed during the 1970s, the areas were already populated by people and livestock. GGNP was formed from these reserves in the early 1990s, and an accord was reached that avoided much of the political and socio-economic obstacles associated with resettlement. The agreement involved the creation of enclave areas specifically demarcated for agriculture and livestock grazing. None-

theless, the negative impact of much of the existent population has and continues to have on the wildlife population can hardly be denied. In the sub-plateau farming enclaves wild game is scarce. Not only are these enclaves subject to deforestation by local inhabitants, but their geographical position near the western and southern boundary of the park respectively has left them vulnerable to cattle incursions and poaching from commercial hunters.

The situation in the highland enclaves is more promising. Wild game is still relatively abundant. The Fulani, who dominate the highlands, are less reliant on farming than the populations of the other enclaves and experience less conflict with wild animals. Their strict adherence to Islam means that many animals, including primates, are considered haraam (an Arabic term meaning "forbidden") and so are left untroubled. Furthermore, their close relationship with the regional traditional council and ethnic domination of local government has resulted in a willingness to cooperate with the park authorities. For example, on two occasions in the summer of 2005 Fulani leaders living within the highland enclaves were responsible for the reporting of illegal poaching within the park, resulting in arrests of the perpetrators by park authorities. The presence of so many cattle within these enclaves means that domestic meat is also abundant, reducing further the pressure on wildlife as a source of protein.

Despite the presence of human populations inside GGNP, its vast size and inaccessibility have combined to help maintain existent habitats and wildlife populations. The park is, however, increasingly threatened by the relatively recent commercialisation of hunting in the region. The development of new bushmeat markets has been aided by improvements in access (improvements in roads and increasing

availability of commercial trade routes), communications (e.g. mobile phone networks), and the establishment of new, more affluent, urban markets. In recent years, it has become more common to encounter individuals hunting within the park that are not from the villages within or surrounding the park, but who have instead travelled considerable distances to hunt, both from within Nigeria and from bordering Cameroon. These new types of commercial hunter frequenting GGNP do not tend to follow traditional hunting bans on primates and pigs associated with Islam. All animals are hunted, with as many killed in as short a period as possible for maximum profit. The existing system of park rangers and patrols is incapable of dealing with such a problem, as rangers are often ill-equipped, unmotivated and poorly managed. Despite these problems, GGNP has, at least to some extent, succeeded as a national park.

In contrast to Taraba state, human populations in Cross River are largely Christian, and so traditional Muslim restrictions pertaining to the hunting and consumption of species such as primates and pigs are not present, although there may have been formerly some traditional protection for some primate species. Again the region has a rich ethnic diversity, but human population densities are significantly higher (143/km<sup>2</sup>) than Taraba and there are a number of large urban centres with burgeoning populations both within the state, and in adjacent areas. These urban centres help fuel the demand for bushmeat products which, as a consequence, are readily available in many locales throughout the state. In addition, a great deal of timber is still being taken from Cross River's remaining forests, some legally, but more illegally, from areas where logging is in theory prohibited. The end result of such logging is an increase in forest frontiers, bringing ever increasing numbers of



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people into contact with wildlife habitats. Domestic livestock are also much scarcer, leading people to look towards wild animals for protein.

The largest areas of protected habitat within Cross River are found within the national park. Like GGNP, CRNP also contains enclaves of human settlements, and *Landsat* imagery shows areas of cleared forest which have increased substantially in recent years (Oates et al. 2004). As in GGNP, enclaves are clearly having a dynamic impact on the CRNP environment, but here the larger human populations and lack of Islamic prohibitions on the hunting and consumption of particular species make the situation far worse for slow-breeding primate populations. Other obvious problems for wildlife conservation in the state include the excessive clearance of vegetation alongside the road from Ikom to Obudu in 2007 and 2008, which further separates areas on the west of the

road, around Afi River and Afi Mountain, from areas on the east of the road, such as Mbe Mountains, Okwangwo Division of Cross River National Park, and the subsequent contiguous forest areas of Cameroon.

Differences between Taraba and Cross River states in the present abundance of primate populations demonstrate the importance of cultural and lifestyle practices among local populations in determining the nature and extent of hunting pressure, and the subsequent viability of wildlife populations. Accessibility and population density are also key, and are certainly some of the main factors behind the continued maintenance of GGNP's primate populations. This situation is sure to change as game becomes scarcer elsewhere, the local population surrounding GGNP increases further, and improvements in accessibility and communications attract even more commercial hunters. The major problem is not all hunting

per se, but its present scale, and the commercialisation and expansion of hunting practices to fuel burgeoning urban markets.

Although actions to catch and punish those who hunt illegally within protected areas are needed, models of wildlife conservation that are purely reactionary are not enough; clearly, a more proactive approach is required. Only when the harvesting and consumption of bushmeat can be understood in the context of people's everyday lives can possible interventions and alternative opportunities be considered (Bowen-Jones et al. 2002), and although a good deal of research into bushmeat commodity chains has been undertaken in Cross River, there has been very little in Taraba. There is still time to conserve much of the remaining diversity in both Taraba and Cross River states, but the next 20 years will be crucial, and all protected areas and forest reserves in both states deserve and require increased attention.

*James P. Higham and  
David M. Bennett*

### References

- Bowen-Jones, E. et al. (2002): Assessment of the solution-orientated research needed to promote a more sustainable bushmeat trade in Central and West Africa. DEFRA (DETR) Wildlife and Countryside Directorate
- Chapman, H. M. et al. (2004): An assessment of changes in montane forests of Taraba State, Nigeria, over the past 30 years. *Oryx* 38 (3), 1–9
- Dunn, A. (1998): Gashaka-Gumti National Park: A management plan for developing the park and its support zone (draft). Nigerian National Parks Service, Nigerian Conservation Foundation, World Wide Fund for Nature-UK
- Fa, J. E. et al. (2006): Getting to grips with magnitude of exploitation: Bushmeat in the Cross-Sanaga rivers region, Nigeria and Cameroon. *Biological Conservation* 129, 497–510
- Oates, J. F. et al. (2004): Africa's gulf of guinea forests: biodiversity patterns and conservation priorities. *Advances in Applied Biodiversity Science* No. 6. Conservation International



**A simple temporary rack (with a buffalo skull) erected to smoke meat in Gashaka-Gumti National Park**

*Photo: David M. Bennett*



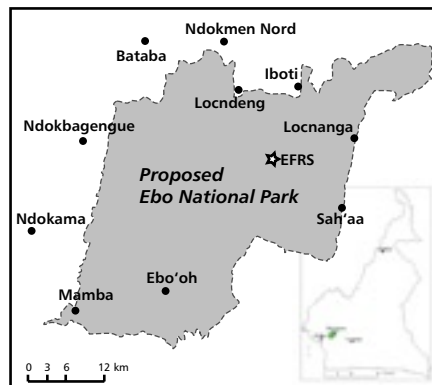
# GORILLAS

## The Gorillas of the Ebo Forest, Cameroon

Cameroon is an important country for both gorillas and chimpanzees. To the south of the Sanaga River, western lowland gorillas (*Gorilla gorilla gorilla*) exist, often sympatrically with central chimpanzees (*Pan troglodytes troglodytes*). To the forested region northwest of the Sanaga River the Nigeria-Cameroon chimpanzee (*Pan troglodytes vellerosus*) is present (Gonder et al. 1997), as well as a small remnant population of Cross River gorillas (*Gorilla gorilla diehli*) peppered along the Cameroon-Nigerian border area (Morgan & Sunderland-Groves 2004). The Cross River gorillas are separated from gorillas south of the Sanaga River by c. 250 km and appear to be morphologically (Sarmiento & Oates 2000) if not genetically (Clifford et al. 2004) distinct.

In November 2002 a “new” population of gorillas was discovered in the Ebo Forest, less than 100 km north of the Sanaga River (Morgan et al. 2003). Prior to this, the only indications of gorilla presence were nests (Dowsett & Dowsett-Lemaire 2001; Oates et al. 2003). Genetic analyses are underway to establish the affinities of the Ebo population but their geographical range (intermediate to the ranges of the two known gorilla subspecies in Cameroon) suggests that in biogeographical terms they are an important population.

The “discovery” of the small gorilla population led to the establishment of the Ebo Forest Research Station by the *Zoological Society of San Diego's* Center for Conservation and Research for Endangered Species (CRES) which was created under Government authorization in April 2005 with cooperation from both WCS Cameroon Biodiversity Programme and WWF Cameroon Coastal Forests Programme. Since that time, there has been a permanent presence of researchers in the



**The Ebo Forest with the Ebo Forest Research Station (EFRS). The gorilla population is situated approximately midway between the EFRS and Iboti village.**

forest, albeit limited (until 2007) to the area within 10–20 km of the Ebo Forest Research Station.

The Ebo Forest is one of the most important remaining tracts of closed-canopy forest between the Cross and Sanaga rivers thanks to its challenging topography, and it contains one of the most complete populations of a wide variety of forest mammals in Cameroon north of the Sanaga River. As well as forest elephants (*Loxodonta cyclotis*), gorillas and chimpanzees, there are nine other diurnal primate species present, including important populations of species in serious decline elsewhere, such as drills (*Mandrillus leucophaeus*) and Preuss' red colobus (*Piliocolobus preussii*). However, the relative proximity of the forest to Douala, the largest port city in Central Africa and a major hub for both the logging industry and the commercial bushmeat trade, is continuing to exert pressure on the forest from all sides.

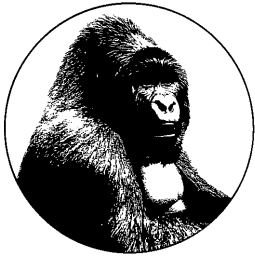
Since our first report to *Gorilla Journal* (Morgan 2004) we have discovered that the gorilla population at Ebo is at least threatened, if not more at risk than we had previously estimated. We now know that the population is restricted to

a very small area of mountains and valleys covering about 25 km<sup>2</sup> in the north west of what will be the Ebo National Park. Quite why the gorillas have chosen this area is not clear – it is relatively close to the villages of Iboti and Locndeng, where the main occupation of many of the youths is hunting to supply the commercial bushmeat trade. We now estimate that the total population of gorillas does not exceed 25 individuals, and fear that the exact number might be even less.

The area of forest currently occupied by the gorillas is also used for sporadic hunting by local populations, both using firearms and by setting traps. We will establish a permanently-manned satellite camp in this area in mid-2008, since it is clear that our mere presence in the forest is deterring hunting from those areas where we regularly visit. We will put in place stringent rules to limit disturbance of the gorillas by our team, relying on indirect signs such as nests, faeces and footprints to determine their presence and ranging patterns.

The last incidence of a gorilla killing was in early 2006 when we heard, through our contacts in multiple villages, that hunters from Locnanga had come across gorillas in the forest and “taken the opportunity” to kill what was described as a single female gorilla. Unfortunately the gorilla had already been taken to Douala and sold by the time we heard of the information, and despite significant reaction to the information from our NGO partners, the Ministry of Forestry and Wildlife (MIN-FOF) officials and the local traditional rulers, the culprits were not identified (through fear of reprisals). Since this time we have increased our presence in all these villages through our education program and, at the very least, we believe that we would come to hear of any other such incident.

Thus since our last report we have established and are gradually growing



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an education program in the villages surrounding the Ebo Forest, with an emphasis on these villages to the north and northwest of the Ebo Forest, specifically because they hold the key to the survival of the gorilla population in the longer term.

As well as being awarded a grant from *Conservation International* in 2007, through the IUCN *Primate Specialist Group's* Section for Great Apes, we now have a grant from the *Ecolife Foundation* to bring the most "accomplished" hunters to the Limbe Wildlife Center in Limbe, South West Province for 2-day workshops covering topics as diverse as identification of endangered species found in the Ebo Forest, the will and increasing use of law enforcement to protect the species by the Government, and potential alternative income-generating methods in the villages. Our commitment to the education program in villages themselves, targeting the whole population, has increased in recent months thanks to an award from the USFWS (*US Fish and Wildlife Service*) *African Elephant Conservation Fund*, which has also equipped us with audio-visual equipment to take films and documentaries to the villages concerning conservation issues. The *Great Ape Film Initiative* has provided many of these films, which we will show with our translations into French and the local languages of Banen and Basa. This is essential, since many of the village elders and children speak only their traditional languages.

These educational activities are being conducted in the shadow of the continuing efforts to bring the Ebo Forest a new status of national park. The Government of Cameroon has earmarked the region as a protected area since 2003, but it was only in late 2006 that the process started in earnest with stakeholder meetings throughout the region. The *World Wide Fund for Nature* (WWF) Coastal Forest Programme are the main technical advisers to the

Government for this project, although the *Zoological Society of San Diego* has provided some funds for the sensitization meetings to assist in these efforts.

The "gazettement" process to determine the boundaries of the proposed protected area has not been without its difficulties. There have been some major obstacles in the process, due to the fact that much of the Ebo Forest was inhabited until the period of civil unrest that troubled much of Cameroon in the 1960s. The remains of abandoned villages are evident in many of the valleys, and the village "elites" – well-to-do Cameroonians who were born in these villages but who have spent most of their lives away from the region – have raised numerous concerns regarding the classification of what they regard as their land as national territory. In late 2007 several contingents of "elites" returned to the land where their villages used to stand and began construction of wooden houses to symbolize and reinforce their ownership of the land. Tragedy struck in November 2007 when an elderly man was hit by

a falling tree, and soon after this event the majority of the elites left the forest and returned to Douala and Yaoundé to continue their protests via letters and lobbying.

A complex and lengthy series of negotiations between Government, technical advisors and the elites has now been completed, and a visit by a technical team to the forest and the Ebo Forest Research Station confirmed that, while there is no permanent human habitation in the forest (save for our research station), graves, ruins of colonial-time buildings and cocoa farms were present. The limits of the national park were thus re-drawn to take account of these land claims and resubmitted to the Government in December 2007, but unfortunately the technical advisors to the Government failed to verify the new boundaries with us, and we discovered only after the plans had been resubmitted to the Government that the small gorilla population was now exclusively outside the park boundaries.

Thankfully our partners and the technical advisers to the Government



*The mountains of the Ebo Forest near Locndeng*

*Photo: Bethan Morgan*



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listened to our concerns and withdrew the revised boundaries, altered them to take account of the gorilla population, and resubmitted the plans to the Government and elites, who appear to now accept them. The final documents outlining the boundaries for the future Ebo National Park are currently awaiting signature by the Prime Minister, and we hope that this procedure will be completed in the coming months. The next hurdle to cross will be the development of a long-term Management Plan with secured funding for the Ebo National Park.

We continue to seek strong local support for our work, and tread a delicate line between striving to conserve the forest and its fauna whilst remaining understanding and sympathetic to the concerns of the local peoples. Importantly, we continue to have an excellent relationship with the traditional ruler of this district of Ndokbiakat, His Majesty Dipita Gaston, who has supported our project from the start and is an important bridge between us, the exterior elites, and the local peoples.

In summary, we continue to have a strong presence in the forest, in the villages, and with the authorities and our partners in the towns and cities of the region. We are resigned to a long period of slow and steady progress, with setbacks and challenges dogging every step, but we believe that the eventual demarcation of a national park, with effective management strategies put in place by the Government, accompanied by strong enforcement and education policies, will allow for the development of a successful protected area with all of its benefits felt by the local populations – both human and great ape.

*Bethan Morgan*

*This work could not have been possible without ongoing support from the Zoological Society of San Diego, Offield Family Foundation, USFWS Great Ape*

*Conservation Fund, USFWS African Elephant Conservation Fund and the Margot Marsh Biodiversity Foundation, to whom we are extremely grateful. We work in conjunction with the Government of Cameroon (MINFOF and MINRESI) and with WWF and WCS in Cameroon, and we also thank our hard-working staff for their commitment and dedication to their work.*

## References

- Clifford, S. J. et al. (2004): Mitochondrial DNA phylogeography of western lowland gorillas (*Gorilla gorilla gorilla*). *Molecular Ecology* 13, 1551–1565
- Dowsett-Lemaire, F. & Dowsett, R. J. (2001): First survey of the birds and mammals of the Yabassi area, south-western Cameroon. Unpublished report, WWF Cameroon
- Gonder, M. K. et al. (1997): A new west African chimpanzee subspecies? *Nature* 388, 337
- Morgan, B. J. & Sunderland-Groves, J. L. (2006): The Cross-Sanaga gorillas: the northernmost gorilla populations. *Gorilla Journal* 32, 16–18
- Morgan, B. J. (2004): The gorillas of the Ebo forest, Cameroon. *Gorilla Journal* 28, 12–14.
- Morgan, B. J. et al. (2003): Newly discovered gorilla population in the Ebo forest, Littoral Province, Cameroon. *International Journal of Primatology* 24, 1129–1137
- Oates, J. F. et al. (2003): The Cross River gorilla: Natural history and status of a neglected and critically endangered subspecies. Pp. 472–497 in: Taylor, A. B. & Goldsmith, M. L. (eds.): *Gorilla Biology: a multidisciplinary approach*, Cambridge University Press
- Sarmiento, E. E. & Oates, J. F. (2000): The Cross river gorillas: A distinct subspecies, *Gorilla gorilla diehli* Matschie 1904. *American Museum Novitates* 3304, 1–55

## First Observation of the Birth of a Western Gorilla in the Wild

On the 4<sup>th</sup> December 2007, staff of the Dzanga-Sangha's Primate Habituation Programme (PHP) witnessed the birth of a new gorilla infant into the Makumba group. The group has been followed since 2000 from the Bai Hokou base camp, Dzanga-Ndoki National Park, Central African Republic: an area internationally renowned for its exceptional levels of biodiversity. The

Makumba group now numbers 14 individuals including the silverback, 3 females, 3 subadults, 4 juveniles and 3 infants. The new-born was named Mowane (meaning “gift of God” in a local Bantu language) by the Central African Republic's minister in charge of Développement du Tourisme et de l'Artisanat (Development of Tourism and Arts and Crafts), Madame Yvonne Mboïssona, who luckily arrived shortly after the birth on her first visit to the gorillas.

The silverback, Makumba, was first observed attempting to mate with Mowane's mother Malui in February 2007, and was mating successfully from the end of March right up until a week before the birth. Malui gave birth to Mowane in a tree nest (*Drypetes* sp.) approximately 15 m from the ground; Makumba was feeding in a tree nearby. Two juveniles (one an unrelated subadult male, son of the dominant female, the other possibly Malui's juvenile daughter) showed great interest in the birth and climbed the tree to watch. The trackers then observed Malui biting the umbilical cord free, after which she climbed down and made three more nests on the ground. At this point her other offspring (one aged about 7 years, the other 3 years 10 months, estimated to within a month) came and watched Malui groom the infant.

The new birth follows the shortest interbirth interval (IBI) recorded for western gorillas, which was previously estimated at 4–6 years (N = 6, Robbins et al. 2004). Previous IBI comparisons with mountain gorillas (average surviving IBI 3.9 years, N = 88, Robbins et al. 2006) predicted longer IBIs in western gorillas because of the expected increased competition amongst western gorilla females (Doran & McNeillage 2001). More accurate data are needed, but this appears to be a trend for this group's females in particular and may reflect the health and ecological status of the group in general. Like the other





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## **Mowane riding on Malui's back**

*Photo: Kate Bracewell*

mother-offspring pairs, Mowane has inherited the unique nose pattern of her mother, V-shaped nostrils with distinct line-markings above.

Today, the mother and infant are doing well and staying within the proximity of Makumba's protection. Initially carried on Malui's underside, by the second day Mowane was intermittently being carried on her mother's back, and more recently on her arm. Makumba is taking his role of protective father seriously: he rapidly led the group away from the imminent threat of a solitary male during an interaction a week later (which unfortunately also led to the transfer of a subadult male, aged approximately 8, and the return of the group size to 13).

Despite being home to one of the largest remaining populations of gorillas in Central Africa, poaching, unsustainable logging, and the potential spread of diseases such as Ebola present major threats to the survival of apes in the Sangha region. The Makumba group is the second gorilla group habituated by the WWF-funded PHP which was set up in 1997 to protect and better understand this endangered and little-known species. Its aim is to habituate western gorillas for tourism and research and thereby increase the economic value of the park, raise revenue for local communities through revenue sharing, and raise support for gorilla conservation.

The program forms part of the larger Dzanga-Sangha Protected Areas Eco-tourism Program, managed in partnership by the Central African Republic's government, WWF and GTZ/GFA Consulting Group. Habituating western gorillas (a process whereby individuals become accustomed to human presence) can take over 5 years and requires a substantial investment in effort and resources.

The PHP is now considered a key success of WWF's work in the region and staff are currently following 4 gorilla groups in varying stages of habituation (as well as an extraordinary group of approximately 230 *Cercocebus agilis*). Learning a wealth of lessons along the way, the program contributes to gorilla conservation strategies through the application of knowledge gained from long-term research. It provides visitors with the unique opportunity to see wild western lowland gorillas in their natural forest environment, raising international and national awareness and interest on the plight of the western lowland gorilla. Lastly, the program generates income for the protection of the park, the local community, and substantial donor support for gorilla conservation efforts, not only for the Dzanga-Ndoki National Park, but throughout the Congo Basin.

*Angelique Todd*

## **References**

- Doran, D. M. & McNeilage, A. (2001): Subspecific variation in gorilla behavior: the influence of ecological and social factors. Pp. 123-149 in: Robbins, M. M. et al. (eds.): Mountain gorillas: three decades of research at Karisoke. Cambridge (Cambridge University Press)
- Robbins, M. M. et al. (2004): Social Structure and Life-History Patterns in Western Gorillas (*Gorilla gorilla gorilla*). American Journal of Primatology 64, 145-159
- Robbins, A. M. et al. (2006): Age-Related Patterns of Reproductive Success Among Female Mountain Gorillas American Journal of Physical Anthropology 131, 511-521

## **Advantages and Disadvantages of Ape Research and Tourism**

The behaviour of free-ranging chimpanzees (*Pan troglodytes*) has been studied in the Taï National Park in Côte d'Ivoire since 1979. Three communities of chimpanzees have so far been habituated to the presence of humans during this research. As a reaction to an increasing number of disease outbreaks, and consequent deaths, the *Taï Chimpanzee Health Project* was founded in 2001. This project is a co-operation between the Max Planck Institute for Evolutionary Anthropology in Leipzig and the Robert Koch Institute in Berlin. The interdisciplinary collaboration of behavioural scientists, veterinarians and infectious disease biologists has helped to identify a surprising variety of pathogens such as anthrax, herpes and STLV (Simian T-cell Leukaemia Virus).

On 5 occasions between 1999 and 2006, a respiratory disease broke out among the chimpanzee communities, causing the deaths of at least 21 individuals. In addition to searching for the pathogens responsible for these outbreaks, questions arise as to where the diseases came from: do the pathogens



## **Fabian Leendertz in the Taï National Park wearing a mask**

*Photo: Wolfram Rietschel*



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circulate naturally among the chimpanzee population or were they imported?

Systematic studies have led to the answers to these questions. Tissue samples of tested chimpanzees proved positive for two pathogens typical of respiratory tract infections in humans: the “respiratory syncytial virus” (RSV) and the human metapneumovirus (HMPV). Phylogenetic analyses also showed that the virus strains found in chimpanzees were closely related to pandemic strains currently circulating among human population groups. Hence, the transmission to chimpanzees probably occurred in the not too distant past. Clinical observations and demographic analyses indicate that this is not the first time this type of disease has broken out among the chimpanzees. But this is the first time that direct evidence for viral transmission from humans to apes has been found.

On the other hand, bio-monitoring data collected during our research has demonstrated that research and tourism also have a strong positive effect on the apes as they decrease poaching. The population density of the chimpanzees roaming in the vicinity of areas where research is taking place and in an adjacent tourism area was much higher than in the other areas of the national park. There is no doubt that this protective effect outweighs the chimpanzees’ increased mortality caused by the introduction of human pathogens.

To safeguard the future of ape tourism and research, particular attention needs to be paid to a strict adherence to standards of hygiene. Only persons who are vaccinated (for example against measles, mumps and rubella) should be permitted access to the apes. Tourists and researchers alike should only be allowed into the proximity of the animals if they show no symptoms of disease whatsoever. Further, a minimal distance should be

kept and the wearing of a mask should be obligatory.

*Sophie Köndgen and  
Fabian Leendertz*

## **Original Publication**

Köndgen, S., Kühl, H., N’Goran, P. K., Walsh, P. D., Schenk, S., Ernst, N., Biek, R., Formenty, P., Mätz-Rensing, K., Schweiger, B., Junglen, S., Ellerbrok, H., Nitsche, A., Briese, T., Lipkin, W. I., Pauli, G., Boesch, C. & Leendertz, F. H. (2007) Pandemic Human Viruses Cause Decline of Endangered Great Apes. *Current Biology* 18, 1–5.

## **Club Ebobo – Conservation Education around the Nouabalé-Ndoki Park**

Gorilla populations throughout Western Equatorial Africa are rapidly declining. Illegal bushmeat hunting and the lack of law enforcement are seen as the main reasons for the conservation crisis western gorillas are facing. Furthermore the commercial bushmeat trade (particularly when primates are involved) is a serious threat to human health because it exposes people to emerging infectious diseases, such as Ebola hemorrhagic fever.

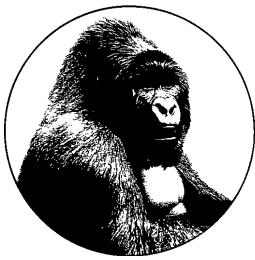
A variety of actions is therefore needed to mitigate the threats western gorillas and other large mammals are facing. Immediate responses include conservation activities such as anti-poaching patrols, enforcement of laws and the provision of alternative protein resources, and longer term mitigation actions address the problems gorillas will face in the coming years caused by human population growth or habitat loss and disturbance.

Conservation education is likely to play a vital role in the list of actions needed to guarantee that gorilla populations throughout Western Equatorial Africa remain viable, and this includes awareness campaigns in the short and the long term.

Immediate actions must involve awareness and outreach campaigns

about current wildlife laws, directed towards law enforcement officials – police, judges, and customs-officers. Further, both rural and urban people need to be informed about these laws, about the ethical, cultural, economic and ecological importance of gorillas, and the risks of diseases resulting from the consumption of primate bushmeat. Such activities can be conducted through formal and informal meetings, exhibitions, poster campaigns, or broadcasting in local radio and television stations, and work best if they are coordinated between different conservation organizations (local and international), logging companies and the wildlife authorities. At the same time long term education programs have to be put in place with the aim of changing the attitudes of local people to the value of wildlife. If we want to ensure the survival of gorillas in the future we have to address our conservation effort to the future generation – the children.

The Mbeli Bai Gorilla Study is part of the Nouabalé-Ndoki Project ([www.wcs-congo.org](http://www.wcs-congo.org)), a collaboration between the *Wildlife Conservation Society* (WCS) and the Government of Congo, which strives to maintain strong links with the local communities living around the Nouabalé-Ndoki National Park in northern Congo through a participatory approach to conservation. The Mbeli Bai Study has been running a conservation education program, “Club Ebobo” (Ebobo is the local name for gorilla), in local schools around the national park since 1998. Club Ebobo, which is receiving vital support from various North American zoos, has the objectives to teach the school children about the fauna and flora of the region’s ecosystem, so that they appreciate and take pride in the biodiversity that exists in their region, and to promote the conservation and research activities undertaken within the Nouabalé-Ndoki National Park, within a population that would otherwise have very little contact



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**Research assistant of the Mbeli Bai Study with school children holding animal puppets after a session of Club Ebobo** Photo: Thomas Breuer

with the protected area. Such changes in attitudes will discourage the trade in illegal bushmeat by reducing the likelihood that the current generation of schoolchildren will consume or trade bushmeat in the future.

Originally, researchers of the Mbeli Bai Study established Club Ebobo in Bomassa, the village near the park's headquarters (it is currently reaching around 100 children in Bomassa). Past experience in Bomassa has demonstrated that Club Ebobo's efforts have to stretch beyond the classroom, particularly when addressing issues such as risk of diseases through consumption of gorilla bushmeat, illegal hunting of protected species, and hunting with cable snares (which is illegal in Congo). In recent years we have continuously expanded this education activity to the east of the Nouabalé-Ndoki National Park, and Club Ebobo has reached the local town of Makao in 2005 (reaching around 80 children), and to the log-

ging town of Thanry-Congo (reaching around 400 children). This region, once extremely remote and home to several different indigenous groups of hunter-gatherers, is now surrounded by logging concessions, and has undergone a complete demographic and economic transformation over the past years as a direct result of logging activities in the region. The implementation of Club Ebobo in Makao has resulted in the participation of many Bambenzele Pygmy children that formerly did not visit the school.

Club Ebobo sessions are typically held on a monthly basis by our Congolese research assistants together with the teachers of the three different primary schools. Sessions are held in French and in the local language Lingala, and classes which often contain more than 100 pupils are separated by age.

Activities of Club Ebobo are designed to encourage creativity amongst

students rather than using the learning-by-rote system that is popular in Congo's schools. They involve fact sheets, songs and games (searches, "spot-the-difference" pictures and other worksheets, card games and role playing games), with animal puppets and tales of real-life experiences from the Mbeli Bai Study research staff, each based around a chosen theme (protected species, importance of rain forests, environmental issues...). We also use multi-media material (in collaboration with the *International Conservation and Education Fund* [www.incef.org](http://www.incef.org)) to show videos, powerpoint presentations and photographs. We teach the local children about gorillas and their behavior, and explain the importance of the research being conducted at Mbeli Bai with an emphasis on the importance of conserving wildlife and their habitat. Some sessions deal with more complicated matters, such as the complexities of the ecosystem and more complex conservation issues. This encourages children to see animals and the ecosystem as a complex and interesting web of interactions, rather than just a natural resource to be exploited. Basic school materials and T-shirts are provided to pupils and teachers.

To evaluate the impact of our education program Club Ebobo, we are performing evaluation schemes that aim to measure the success of our education program at three levels (increase of knowledge, changing attitude, changing behavior). This approach will also be expanded including pre-post tests and comparison with schools that have not had visits by the Club Ebobo team.

In the past year the conservation group of the Max Planck Institute for Evolutionary Anthropology ([www.eva.mpg.de](http://www.eva.mpg.de)) has adopted Club Ebobo's aims with the establishment of a similar primary school education program, "Club P.A.N.", which is organized and implemented by the *Wild Chimpanzee Foundation* ([www.wildchimps.org](http://www.wildchimps.org) –



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with the help of the *World Wildlife Fund*) around the Taï National Park, Côte d'Ivoire. In particular we have developed an education book that is used at both sites and have developed standard evaluation sheets that aim to measure the success of our education programs, in particular regarding the increased level of knowledge of the children. Further efforts will be made to extend these evaluation schemes to address issues of attitude change and change in behavior, particularly the reduction of bushmeat consumption.

Club Ebobo is also sharing our experience with additional conservation education projects within Western Equatorial Africa with the aim of establishing similar structures in as many sites as possible. Further, we are collaborating with North American zoos and *Wild Research*, a *National Science Foundation*-funded program whose stated mission is to deepen public engagement in science and conservation in North American zoos. Material produced by *Wild Research* will be available for use in Club Ebobo sessions. Collaborative efforts between different in-situ and zoo education programs will improve our ability to effectively address issues of gorilla conservation education and awareness campaigns. Such collaboration will allow us in the future to expand nature clubs, such as Club Ebobo, to the main town of bushmeat consumption in the region.

*Thomas Breuer*

*My sincere thanks go to the Ministère de l'Économie Forestière et de l'Environnement for permission to work in the Nouabalé-Ndoki National Park, and to the staff of WCS's Congo Program for crucial logistical and administrative support. I thank all my research assistants that have helped in planning and preparing Club Ebobo sessions, in particular Franck Barrel Mavinga who is a fabulous entertainer and teacher for Club Ebobo. The long-term*

*continuation of the Mbeli Bai Study and Club Ebobo would not have been possible without the continuous support provided by our long-term donors, notably the Brevard Zoo, Columbus Zoo and Aquarium, Cincinnati Zoo and Botanical Garden, Sea World & Busch Gardens Conservation Fund, Toronto Zoo, WCS and Woodland Park Zoo.*

## Educational Activities in the Republic of Congo

Following on from its success with gorilla reintroductions and protected area management, the PPG (*Projet Protection des Gorilles*)-Congo has recently launched a large-scale education project. This project will play a major role in the fight against the illegal trafficking of great apes and in educating the local people living in communities that border on the Lésio-Louna Reserve, where the gorilla reintroduction project is having continued success.

Based on the success of the educational initiatives run by the PPG-Congo since 2006, these programs will be further developed and implemented in 2008.

### General Educational Initiatives

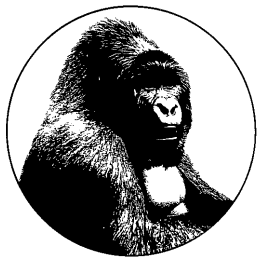
PPG-Congo runs two major education programs in the region around the Lésio-Louna reserve. The first is a series of awareness campaigns for people living in the outlying regions of the reserve, aimed at facilitating communication and encouraging participative management of the reserve by local people. The second initiative that has recently been developed is an educational program in Brazzaville. A small-scale program at the outset, with insufficient financial resources, it has steadily grown as it has received increased support.

The first campaign was the support of a local NGO called the APPC (Association for the Protection of Primates in Congo) through the implementation of educational activities within the Brazzaville Zoo. Training programs for



**Posters in the exhibition on great apes at the Brazzaville French Cultural Centre**

*Photo: PPG-Congo*



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APPC educators were financed by the *Aspinall Foundation*, and this initiative permitted trained staff to communicate their message to nearly 500 individuals over the course of 2007.

In addition, educational programs were developed within two schools in Brazzaville and seven schools located in the outlying areas of the Lésio-Louana Reserve. These programs reached 439 students in Brazzaville and 552 students in the reserve area. Student participation in these activities was encouraged through the use of various educational display panels, films and theatrical plays.

Finally, within Brazzaville a series of posters was mounted in key areas around the city, highlighting the protection laws regarding great apes and the ban that prohibits killing, owning, selling, purchasing or consuming great apes.

## **Conference-exhibition on Great Apes**

The key event of 2007 was undeniably the expo-conference held from 11 to 26 May at the Brazzaville French Cultural Centre.

This event, organized by the French Embassy, the Ministry of Economic Forestry, the *Aspinall Foundation*, the *Jane Goodall Institute* and GRASP-Congo, gathered together all the Congolese NGOs concerned with great ape conservation, such as the WCS (*Wildlife Conservation Society*) and the HELP-Congo project (*Habitat, Ecologie, Liberté des Primates*), as well as the Lola ya Bonobo sanctuary of Kinshasa. Special mention must also go to the director of the NGO LAGA, renowned for wildlife law reinforcement actions in Cameroon, who generously accepted our invitation to share his experience with the Congolese authorities.

The exhibition focused on great apes' ecology, their common ancestry with humans, the national and inter-

national legislation that protects them, and the numerous threats to their survival. This last aspect was of particular interest to visitors as it detailed the progressive decrease of great ape numbers as a result of commercial hunting, habitat destruction and disease epidemics.

Almost 1300 people visited this exhibition, at an average rate of 120 people per day. Among the visitors there were 770 pupils from 16 primary schools, who were given a guided tour of the displays and activities.

The conference held on the 18<sup>th</sup> May included many presentations and films. Invited guests included many high profile state representatives involved with great ape conservation, such as police, customs and legal officers.

## **National Media (Radio and Television)**

In the interests of educating and informing the Congolese population on a more national level, a radio announcement that highlights the importance of great apes and their status as protected species is broadcast on national radio twice a week in three different languages. This initiative will continue throughout 2008, and in all likelihood will continue into the foreseeable future.

In addition to the radio broadcast, there are 4 films that are regularly shown on television. These programs – produced by the national channel TV-Congo – showcase the activities connected with gorilla reintroduction, the management of the Lésio-Louana Reserve, the protected status of great apes, and the issues associated with the trafficking of these species.

## **Educating Rural Development Students**

An awareness campaign aimed at students of the Rural Development Institute (IDR) was implemented at the Marien Ngouabi University. A total of 63

students participated in this educational program and were taught about great ape ecology and their importance, as well as the national and international wildlife laws that protect them.

Following on from the success of this venture, the University has voiced its interest in setting up this program in a range of faculties. At present the Science faculty and Law faculty are ready to implement the project.

## **Collaborating with the National Police Force**

On 25 February 2008, 300 newly trained police officers received a complete training program on great ape legislation and their status as protected species. This included general information on great apes, and various case studies of trafficking that have occurred in Central Africa (thanks to information supplied by LAGA), and officers were able to learn more about this branch of criminal activity as it applies to all flora and fauna, and to great apes in particular. Two films discussing the role of the PPG-Congo were shown, as well as a theatrical play by the ACPF (Association for the Culture of Protection of Flora and Fauna).

This initiative was made possible through the support of the French Embassy and a cooperative project for Congolese police training. An additional 300 officers will also be able to undergo the same training around June 2008. The PPG will maintain its links with the national police force for possible future training events, particularly for high-ranking officers.

## **Conference for Lawyers**

About 60 people working in the practical application of legislation in the Republic of Congo, especially high-ranking magistrates, attended a course on the theme of "The law, a tool for the protection of wildlife". Three talks were presented, showing the difficulties as



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## School visit

Photo: PPG-Congo

well as the opportunities connected with wildlife law enforcement in Central Africa. It was particularly important that the president of LAGA had come to discuss the transfer to Congo of this NGO's successful experiences in Cameroon. WCS and a representative of the Lusaka Agreement also took part. This event was followed up by special investigations, leading to the first arrest and arraignment of an ivory dealer. The activities of several great ape dealers are also under investigation, and they may be brought to justice in the near future.

Luc Mathot and Marielle Puit

## CMS Gorilla Agreement Moves Ahead

An international *Agreement on the Conservation of Gorillas and Their Habitats*, under the *Convention on Migratory Species of Wild Animals* (CMS), was negotiated and concluded in Paris in October 2007 (see also

*Gorilla Journal* 35); this binding instrument has already been signed by 5 range states, the Central African Republic, the Republic of Congo, the Democratic Republic of the Congo, Nigeria and Rwanda before it closed for signature in Paris on 25 April 2008. In accordance with the terms of the Agreement, it will come into effect on 1 June 2008, having been signed by the minimum number of range states required (3). From this date on, any range state which is not already a party can of course still accede to the *Gorilla Agreement*; to accomplish this, the range state must simply deposit an "instrument of accession" with the depositary which is the CMS Secretariat (details and samples are available from the CMS Secretariat).

Furthermore, at the last UNESCO 3<sup>rd</sup> World Congress of Biosphere Reserves, in Madrid in February 2008, a Memorandum of Understanding was signed between Rwanda, the Democratic Republic of the Congo and Uganda, on the future development of a tripartite Transborder Biosphere Reserve, aiming in particular at the conservation of mountain gorillas and their habitats. This initiative is of course of the highest importance for the preservation of mountain gorillas. It reinforces the commitments taken in the framework of the *Gorilla Agreement*, and it will undoubtedly constitute an important element of implementation of the CMS Gorilla Action Plan.

### Gorilla Agreement Action Plan

As part of the CMS *Gorilla Agreement*, under the provisions of Article VIII, CMS Secretariat, together with the range states and international experts, shall develop an Action Plan during the course of 2008. The Action Plans (one for each of the four taxa) will be the main focus of, and should be adopted by, the First Meeting of the Range States, which will take place on 29 November 2008, as part of the next

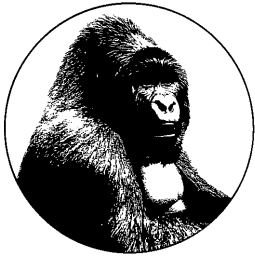
## ACCORD CMS GORILLA



CMS Conference of Parties, which will be hosted by Italy.

First drafts of these Action Plans exist and are available online on the *Gorilla Agreement* Website of the Convention on Migratory Species at: <http://www.naturalsciences.be/science/projects/gorilla>. Maps, status reports and priority populations can also be consulted or downloaded for each gorilla taxon.

All experts are invited to contribute to the development of these Action Plans. We are currently developing a gorilla "wiki" ([www.gorillawiki.org](http://www.gorillawiki.org)), which will allow easy access for comments, proposals, suggestions or amendments to the Action Plans by any registered users. This is a relatively experimental approach, but after careful consideration we feel it to be the optimum method both of achieving the essential multi-lateral dialogue between the range states, who will eventually obligate themselves when the Action Plan is passed as a resolution at the First Meeting of Parties, and also of allowing key organisations and individuals from the world of gorilla conservation to give invaluable input to the process. This, of course, must happen in both English and French, the official languages of the *Gorilla Agreement*, so it will be a lot of work to keep the two versions in line! Further details are available from the CMS Secretariat.



# GORILLAS

## Year of the Gorilla 2009

Next year 2009 is officially the United Nations Year of the Gorilla. The Secretariat hopes to emulate to a certain degree the resounding success of the Year of the Dolphin (2007). A website is planned to go live very soon: the address will be [www.yog2009.org](http://www.yog2009.org). The site is designed as a platform to allow visitors (following registration with CMS) to post articles, or announce events and publications which should be part of the Year of the Gorilla. It is our fervent hope that the campaign not only raises awareness among the public, but also allows organisations and individuals already active in gorilla conservation to network and draw more public and peer attention to their respective projects.

The campaign is an official UN campaign and the CMS Secretariat is the designated focal point, and we expressly encourage organisations to get involved and look forward to the campaign developing momentum. The official launch is planned to take place during the First Meeting of *Gorilla Agreement* Parties (29 November 2008) or



**Mountain gorillas**

*Photo: Patrick Van Klaveren*

the Ninth Meeting of CMS Parties (1–5 December 2008), both in Rome, Italy.

### Looking Ahead...

As you can see the CMS *Gorilla Agreement* is moving ahead; its continuing development and success very much depend on the participation and “buy-in” of everyone who plays a role in gorilla conservation. Not only the range states, but also individuals and organisations involved however slightly in gorilla conservation, or whose work affects gorilla populations and their habitats. CMS specifically also looks to Governments and organisations, and partnerships thereof, to sponsor and promote the *Agreement on the Conservation of Gorillas and Their Habitats*, both at national and international levels. CMS is pleased to have received strong signals from Germany and Italy already in this regard. We would also like to acknowledge the generous support in developing the Agreement from France, Monaco and the UK, and non-governmental partners, such as the *World Association of Zoos and Aquariums*.

In order to realise this ideal of partnerships and networking, CMS is organising a meeting with the current facilitator of the *Congo Basin Forestry Partnership*, the German Ministry of Economic Cooperation and Development, and Secretariat of the *Great Apes Survival Project* (GRASP) Partnership ([www.unep.org/grasp](http://www.unep.org/grasp)), to explore further possibilities for cooperation. The task of administering and coordinating the *Gorilla Agreement* has been given through the terms of that Agreement to the CMS Secretariat and the Secretariat for the GRASP Partnership. The CMS Secretariat is administered by the *United Nations Environment Programme* (UNEP), while GRASP is jointly administered by UNEP and UNESCO.

*Roseline Beudels and Liam Addis*

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[laddis@cms.int](mailto:laddis@cms.int)  
[www.cms.int/gorilla](http://www.cms.int/gorilla)*





## READING

**Tara S. Stoinski, H. Dieter Steklis and Patrick T. Mehlman (eds.)**

**Conservation in the 21st Century: Gorillas as a Case Study** (Developments in Primatology: Progress and Prospects). New York (Springer) 2008. XIV, 362 pages, hardcover, US\$ 125. ISBN 978-0-387707204.

This book was written for people working in conservation, park management and research. It consists of 4 sections: (1) current status of gorillas, (2) approaches – on the ground, (3) approaches – tools, and (4) approaches – building regional and international alliances. Unfortunately, the first chapter (current status of gorillas) is not up-to-date, although it contains many details and much interesting information; the contributions were mostly written a few years ago, but many of the authors included an update.

The main objective of the book is to provide practical and innovative advice. Section 2 introduces approaches to monitoring and to ensuring the survival of gorillas (and other species) that have been used more or less successfully for many years. Most of the tools presented in section 3 are very new and have yet to prove their usefulness for conservation. They often require considerable funds and technical know-how, so range countries cannot use them without at least support from donors.

In the last section, various international conservation concepts are introduced; while some of them have already proven successful, others are still concepts that may or may not be realized. But this is the most interesting aspect of the volume: it is full of unconventional ideas.

*Angela Meder*

**David L. Hawksworth and Alan T. Bull (eds.)**

**Human Exploitation and Biodiversity Conservation.** Topics in Biodiversity and Conservation. New York (Springer)

2007. 514 pages. Hardcover, US\$ 149. ISBN 978-1402052828

**Glyn Davies and David Brown (eds.)**

**Bushmeat and Livelihoods: Wildlife Management and Poverty Reduction.** Wiley-Blackwell 2007. 288 pages. Paperback, US\$ 85. ISBN 978-1405167796

**Takeshi Furuichi and Jo Thompson**

**The Bonobos: Behavior, Ecology, and Conservation.** Developments in Primatology: Progress and Prospects. New York (Springer) 2008. 330 pages. Hardcover, US\$ 149. ISBN 978-0387747859

**Thomas Turner**

**The Congo Wars: Conflict, myths and reality.** London (Zed Books) 2007. X + 243 pages. Hardcover US\$ 117, ISBN 978-1842776889. Paperback US\$ 32, £ 17.99, ISBN 978-1842776896.

**John Laband (ed.)**

**Daily Lives of Civilians in Wartime Africa: From slavery days to Rwandan genocide.** Westport, CT (Greenwood Press) 2007. IX + 301 pages. Hardcover US\$ 65, £ 40.99. ISBN 978-0313335402.

**Helen L. Tilley and Robert J.**

**Gordon (eds.)**

**Ordering Africa: Anthropology, European imperialism and the politics of knowledge.** Manchester (Manchester University Press) 2007. IV + 390 pages. Hardcover, US\$ 84.95, £ 60. ISBN 978-0719062391

**Michael Nest, François Grignon and Emizet François Kisangani**

**The Democratic Republic of Congo: Economic dimensions of war and peace.** Boulder, Colorado, and London (Lynne Rienner Publishers) 2006. 165 pages. US\$ 15.95, £ 10.95. Paperback. ISBN 1-58826-233-2

**Nicholas Shaxson**

**Poisoned Wells: The dirty politics of African oil.** New York, Basingstoke (Palgrave) 2007. VIII + 280 pages. Hardcover, £ 16.99, ISBN 978-1403971944. 2008: paperback, US\$ 18.95, £ 15.99, ISBN 978-0230605329

**Robert H. Bates**

**When Things Fell Apart.** State failure in late-century Africa. Cambridge (Cambridge University Press) 2008. 216 pages. Hardcover US\$ 60, ISBN 978-0-521-88735-9. Paperback US\$ 19.99, ISBN 978-0-521-71525-6

**Tomas Persson**

**Pictorial Primates: A search for iconic abilities in great apes.** Dissertation, Lund University, Sweden 2008. Information on the work: <http://www.lu.se/o.o.i.s?id=12683&postid=938491> – and direct link to PDF for download (7.41 MB): <http://luur.lub.lu.se/luur?func=downloadFile&fileOld=943840>

## News from the Internet

**Assessing Protected Areas in Africa**

The website <http://www.tem.jrc.it/pa/> is part of a first attempt at a large scale assessment of protected areas using objective continent-wide data sets and methodologies as opposed to case studies on individual parks or global assessments. The website contains information on 741 protected areas across 50 countries and includes information on 280 mammals, 381 bird species and 930 amphibian species, and a wide range of climatic, environmental and socioeconomic information. The purpose is to provide decision makers with a regularly updated tool to assess the state of African protected areas and to prioritize them according to biodiversity values and threats so as to support decision making and fund allocation processes.





## READING

The Report *The Assessment of African Protected Areas* (2007) by A. Hartley et al. (77 pages, 10 MB) is available for download at: [http://www-tem.jrc.it/PDF\\_publicis/2007/Hartley\\_etal\\_African%20PAs%20report\\_EUR\\_full%20text\\_07.pdf](http://www-tem.jrc.it/PDF_publicis/2007/Hartley_etal_African%20PAs%20report_EUR_full%20text_07.pdf)

### **Wildlife Conservation and Tropical Timber Certification Report**

This report provides an overview of timber certification, summarizes published evidence of wildlife management in certified tropical timber production forests, and analyzes constraints for achieving sustainable wildlife management. Download of the full report (1.9 MB): <http://static.zsl.org/files/wildlifeandtimber-277.pdf>

### **Atlas of Our Changing Environment**

The UN Environment Programme's new publication *Africa: Atlas of Our Changing Environment* contains 151 maps, 319 ground photographs, and a series of graphs illustrating the environmental challenges faced by the continent. All materials in the atlas are non-copyrighted and available for free use. Individual satellite images, maps, graphs, and photographs can be downloaded from <http://na.unep.net/AfricaAtlas>



### **Skeletal Pathology – an Appeal**

The investigation of the skeleton can reveal important information about antemortem health, including the detection of long-term physical and infectious insults, in both humans and animals. However, examination of bones is often neglected in routine veterinary postmortem work.

The skeletal remains of great apes have attracted growing attention in recent years and, in addition to providing data on the pathology of those species of primate, are helping medical scientists to understand the evolution and pathogenesis of certain human diseases.

In 1994, in collaboration with colleagues at Makerere University, Uganda, the National Museums of Kenya and the Royal College of Surgeons of England, we started a specific study on the skeletal and dental pathology of the mountain gorilla (*Gorilla beringei*). So far, this has involved the gross examination of material in museums and collections in Belgium, France, Germany, the Netherlands, Kenya, Rwanda, South Africa and Uganda. There are over 100 skeletons of mountain gorillas catalogued in the world's museums. They, together with other unclassified material, provide an opportunity for retrospective research on the pathology and diseases of this isolated and threatened species. Many of the bones that are available for investigation are from animals that died, or were killed, decades ago and therefore they provide valuable reference ("baseline") data on the species, as well as opening up possibilities for DNA and other molecular studies.

We want to draw attention to our ongoing study and to ask colleagues who may have access to uncatalogued skeletal material from gorillas (regardless of species) – perhaps stored in a private collection or a local museum – to let us know. We can be contacted at the address below or by e-mail: [ngagi2@gmail.com](mailto:ngagi2@gmail.com)

We particularly exhort those veterinary colleagues who perform necropsies on wildlife to include radiography and postmortem examination of bones in their protocols.

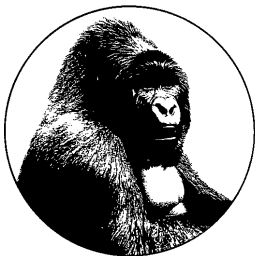
*John E. Cooper and Margaret E. Cooper*

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[www.uwivet.edu/staff/paraclin/john\\_cooper.html](http://www.uwivet.edu/staff/paraclin/john_cooper.html)

### **Le propre du singe**

This is an exhibition shown in the Neuchâtel Natural History Museum from 3 February to 26 October 2008. Its aim is to answer the questions: What is a primate? And: What is a human being? As a side event to this

exhibition, at the beginning of April a "great ape weekend" was organized with talks of many primatologists (e.g. Christophe Boesch and Carel van Schaik) that were free for the public. More information on the exhibition at [www.museum-neuchatel.ch](http://www.museum-neuchatel.ch)



## BERGGORILLA & REGENWALD DIREKTHILFE

### Members' Meeting 2008

The most recent general meeting of the *Berggorilla & Regenwald Direkthilfe* took place in Stuttgart-Hohenheim on Saturday and Sunday, February 9<sup>th</sup> and 10<sup>th</sup>, 2008.

This was the third members' meeting my husband and I have attended, and we want to emphasize how much we appreciate the way they are always organized: each time, the venue has been chosen so that it could be reached easily using either public or private transport, and beautiful accommodation was provided for the participants, as well as exceptional food, and there were good lecture rooms.

The event was well attended. On Saturday, Angela Meder gave an insightful, comprehensive and up-to-date review of the various projects and activities of B&RD. Although the *Gorilla Journal* and the B&RD homepage always include project reports, a lecture provides a more graphic description and can help to bring the projects closer.

During breaks, participants had the opportunity to talk, make new contacts and exchange experiences.

The guest speaker Wolfram Rietschel, the Wilhelma vet, gave a very witty lecture on gorilla diseases, which was delivered with great humour. He described experiences and procedures from his daily working life and illustrated them with caricatures, keeping the audience in fits of laughter. He ended by describing how he once tried to anaesthetize one of his gorilla charges. The patient was not fooled: he spotted the vet and his blowpipe, and realised that he could not get away. Slowly his hand disappeared behind his back and, in the same instant as the anaesthetizing dart hit the gorilla, the vet was hit dead centre by gorilla faeces – Rietschel even included a photo of the result, with the caption "The gorilla's revenge".



In the evening, we had to say farewell to many of the guests, but the meeting was still well attended on the next day for the elections, where the board was unanimously re-elected.

Participants exchanged addresses and agreed to develop networks in order to stay more closely in touch and to

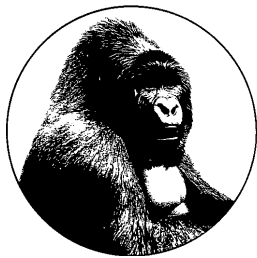
increase activities aimed at attracting more members and sponsors.

In short, we considered the 2008 meeting another successful event and we are already looking forward to the next one in two years' time.

*Ingrid Bröcker*



**The old and new board of directors. From left to right: Angela Meder, Rolf Brunner, Denise Nierentz**  
Photo: Ursula Karlowski



# BERGGORILLA & REGENWALD DIREKTHILFE

## Finances

### Income in 2007

Subscriptions	16,621.47 Euro
Donations	64,300.51 Euro
Refund	1,282.50 Euro
Sales	96.00 Euro
<b>Total</b>	<b>82,300.48 Euro</b>

### Expenses in 2007

Administration	370.17 Euro
<i>Gorilla Journal</i>	4,301.85 Euro
Postage	1,157.60 Euro
Pay/top-ups	3,501.00 Euro
<b>Kahuzi-Biega National Park</b>	
Pygmy schools	4,872.27 Euro
<b>Virunga National Park</b>	
Rain jackets, gumboots, uniforms	10,145.66 Euro
Food for patrols	18,817.81 Euro
Camera assistant	285.84 Euro
Support assistant	184.50 Euro

## Rwanda

Rain jackets	3,932.40 Euro
<b>Total</b>	<b>48,058.10 Euro</b>

## Donations

We thank every individual, company and institution who supported us between November 2007 and April 2008!

We received major contributions and donations from Andrea Bischlapp, Sabine Bungert, Elisabeth Engel, Marianne Famula, Colin Groves, Peter Günther, Thor Hanson, Gabriele Holzinger, Helga Innenhofer, Edda Kachkouli, Eva Klemisch, Sascha Klubert, Hartmann Knorr, Michael Land, Angela Meder, Kurt Niemeyer, Hanna Otte, Birgit Reime, Rogalla, Maria Scharef, Thomas Schinkel, Alexander Schmidt, Her-

mann Schumacher, SOS Internet AG, Heinz Stecker, Hans-Christian Ströbele, Juliana Ströbele-Gregor, Wina Sündermann, Mielke zum Tollberg, Christof Wiedemair, Zoo Köln and Zoo Krefeld.

Franz Glöckner, general manager of the company GHP Direct Mail, collected donations for the *Berggorilla & Regenwald Direkthilfe* during the celebration of his 50th birthday and sent us a 1,265 Euro cheque. Gerhild Werner donated three paintings from her gorilla exhibition for an auction; when they were sold, the proceeds were used for our projects. The advertising company JBW in Schriesheim designed a gorilla calendar, and 30% of the proceeds will support our work.

We are very grateful to our donors and thank them for their contributions – as well as all the other supporters whom we could not name here.



Speakers at the UNEP side event "DR Congo: The Biggest Environment Challenge in Africa" Photo: Iris Weiche

## Conference of the Parties to the Convention on Biological Diversity

During the 9<sup>th</sup> Conference of the Parties to the Convention on Biological Diversity, which was held in May 2008 in Bonn, Germany, the Democratic Republic of the Congo was an im-

portant issue. On 29 May, UNEP gave an introduction to its program in the Congo. Iris Weiche took part in this meeting for the *Berggorilla & Regenwald Direkthilfe* (see photo above). Details on the event are provided by UNEP on the web at <http://www.iisd.ca/biodiv/cop9/enbots/29.html>

A few days later, the Spanish Government announced that it contributed

US\$ 368,000 to the *Great Apes Survival Partnership* (GRASP), an UNEP initiative, that will support the program in the Democratic Republic of the Congo to help protect gorillas, chimpanzees and their habitats.

Hopefully, this initiative will be more successful than the attempts to save orang-utan habitats from destruction by logging and palm oil plantations!



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### Subscription to the *Gorilla Journal*

If you become a member, you will receive the journal regularly. If you want to receive the printed journal without becoming a member, we would be grateful if you could make a donation to cover our costs. The costs to send the journal overseas are about US\$ 20.

If you do not need the printed version, we can include your email address in our mailing list and you will be informed as soon as the PDF files are available (contact: meder@berggorilla.org).

You can download this issue at:  
**www.berggorilla.de/gj36e.pdf**  
as well as the German issue:  
**www.berggorilla.de/gj36d.pdf**  
and the French issue:  
**www.berggorilla.de/gj36f.pdf**

### Declaration of Membership

Starting with the following date \_\_\_\_ I declare my membership in *Berggorilla & Regenwald Direkthilfe*

Name \_\_\_\_\_ Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Birth date \_\_\_\_\_ male  female

I want to receive a printed copy of the *Gorilla Journal*

I want to be informed if the new issue can be downloaded from the internet. My e-mail: \_\_\_\_\_

Yearly subscription (please mark)

Date and signature \_\_\_\_\_

	Europe	Overseas
Student	<input type="checkbox"/> Euro 15	<input type="checkbox"/> US\$ 25
General member	<input type="checkbox"/> Euro 40	<input type="checkbox"/> US\$ 75
Family	<input type="checkbox"/> Euro 65	<input type="checkbox"/> US\$ 120
Donor	<input type="checkbox"/> Euro 100	<input type="checkbox"/> US\$ 180

Bank account:  
*Berggorilla & Regenwald Direkthilfe*  
Account number 353 344 315  
Stadtsparkasse Muelheim, Germany  
Bank code number 362 500 00  
IBAN DE06 3625 0000 0353 3443 15  
SWIFT-BIC SPMHDE3E

Please send to:  
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**Fax +49-208-7671605**

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Postscheckkonto Postfinance  
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