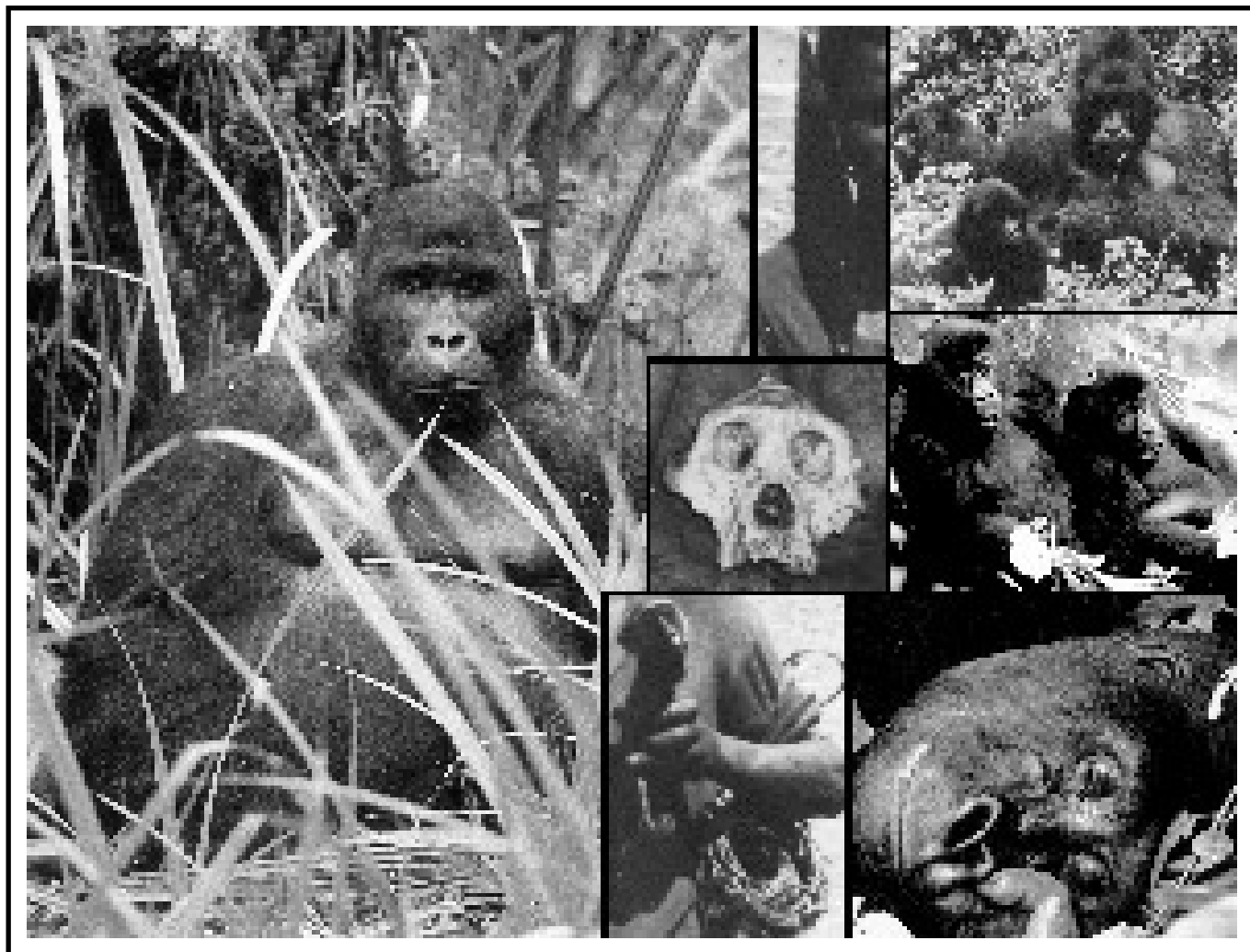


Gorilla

Journal of Berggorilla & Regenwald Direkthilfe

No. 19, December 1999

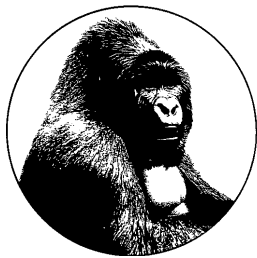


Slaughter of Gorillas in Kahuzi-Biega National Park

Conservation Efforts in Kahuzi-Biega

Cross River Gorillas – a Neglected Subspecies

Western Lowland Gorillas in Odzala and Nouabalé-Ndoki



BERGGORILLA & REGENWALD DIREKTHILFE

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Gorilla Journal 19, Dec. 1999

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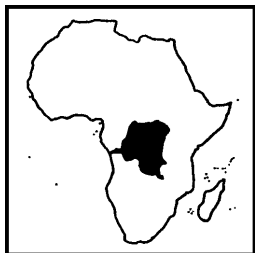
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D. R. CONGO

Poaching in the Old Part of the Kahuzi-Biega National Park

Between April and July 1999, poaching in the Kahuzi-Biega National Park increased considerably. During the war that started in October 1996, many animals were killed, but the more recent data that we collected during this investigation are very alarming too. The armed poachers were mainly targeting large mammals – elephants and gorillas in particular. Moreover, the considerable number of snares that the rangers are always collecting during their patrols are evidence that poaching with wire snares is also still common.

To find out more about the poaching, we collected evidence ourselves or sent informants to those villages where we expected persons that were involved in the poaching or knew details about the poachers, especially elephant and gorilla hunters. The arrested poachers and the respective local chiefs were interrogated in the park. We collected further information in the villages. Besides that, we had talks in the park station, reports from the group "human-elephant conflict" and more informants. Our investigation conducted at the beginning of June yielded the following results.

Elephant Hunters

They work in a complex and wide network. Two poachers were arrested and interrogated. They said that large trees are often felled for the smoking of elephant meat. This means that elephant poaching also destroys the park's vegetation. Sometimes the poachers spend a week in the forest.

Chomère Bugondo has been active for more than 20 years and has already been arrested in the park three times. He said that he does not master any other occupation besides hunting. Originally he had set snares until he and his group received a gun from Rwan-



Chantal Shalukoma with the poacher Chomère

Photo: Chantal Shalukoma

dan refugees of the Kashusha camp. Then he started elephant poaching for ivory, by order of a Mr. Tshimbombo in Bukavu. The poacher told us that he has killed 7 animals.

Georges Maperu Chamoka from Kavumu leads a large group of poachers who have regularly been very active in the park – on behalf of persons who live in Bukavu and across the border. This poacher told us that he has shot 10 elephants.

Ivory and meat are often transported to different recipients. For Georges Chamoka's team, the buyers or their representatives often visit the villages to pick up the tusks. The ivory is exported and the meat is taken to Bukavu in vans. Sometimes tusks are also transported with the meat. On the other hand, Chomère supplies local markets. The meat is usually bought by the women of Inera, Kavumu and Lwiro, and they supply the merchants in Bukavu.

Apart from these 2 big elephant poacher teams, 4 more groups are known to be involved. However, it is

not known how many animals they have killed. All these groups know and occasionally visit each other. Eventually, they also cooperate.

Gorilla Hunters

Mr. Mulinga, the chief of the village Kakenge, is a renowned hunter with dogs, spears and wire snares. His group killed a young gorilla on July 3, probably a member of the Mugoli group. When they were arrested, the meat of this animal was just being cooked. The hands and feet of the gorilla were the proof of the poaching and consequently, the poacher confessed. Mr. Misarhi, a pygmy, is working for the chief poacher.

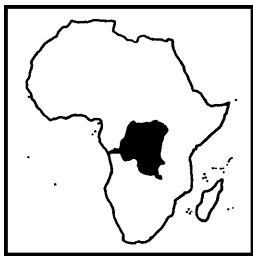
Mr. Kalyagizi and his team killed 6 gorillas on June 19. These animals probably also belonged to the Mugoli group. In April Corporal Tip shot a gorilla. This man is working for the team of Georges Chamoka which killed 12 gorillas in June.

In total, 3 teams of gorilla poachers are well-known; they killed 20 gorillas altogether. They hunt with dogs and guns. In the case of the Mulinga team, the gorilla meat is mainly consumed by the poachers themselves.

We were especially interested in one question: Do the hunters kill gorillas just for meat or is there another reason why they are hunting these apes in particular? We have to investigate deeper to find the answer.

Summary and Conclusions

Within a few months, 2 groups of hunters killed 17 elephants. Since April, 20 gorillas have been shot, and according to the poachers 12 belonged to the same family, Mugoli. Poaching in the old part of the Kahuzi-Biega National Park has increased, especially regarding elephants for ivory trade in the Great Lake region. Meat from gorillas that have been killed is consumed by the poachers' families and only a small quantity is sold to neighbours.



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We found out that pygmies are employed by the poachers as pisteurs.

We have the following recommendations:

- conduct frequent mixed patrols, also into the park's interior,
- carry out thorough investigations in order to arrest all responsible persons, to improve park surveillance and to reduce large mammal poaching,
- further include the group "human-elf elephant conflict" in the investigation,
- increased engagement of the park management in order to destroy the poacher network by depriving the respective persons in the villages of their power. To achieve this, cooperation with the local chiefs and other responsible authorities is necessary,
- start activities for the pygmies living close to the park as soon as possible because they have been playing an important role in elephant and gorilla poaching,
- collect elephant skulls in the park with a team of selected pygmies in order to find out how many individuals have been killed in which areas,
- register the respective places with GPS and mark these areas in the park map.

Chantal Shalukoma

Slaughter of Gorillas in the Kahuzi-Biega Park

Frequent poaching of gorillas on a massive scale occurred in the Kahuzi-Biega National Park in 1999. All 4 habituated groups which had accepted tourists no longer exist, and it is suspected that more than half of the population (240 gorillas) in the original sector of the park (600 km²) has recently been killed. Poaching activities in the large lowland sector (the rest of 6,000 km²) is anticipated to be more severe. The eastern lowland gorillas

(Grauer's gorillas) are now in critical danger of extinction.

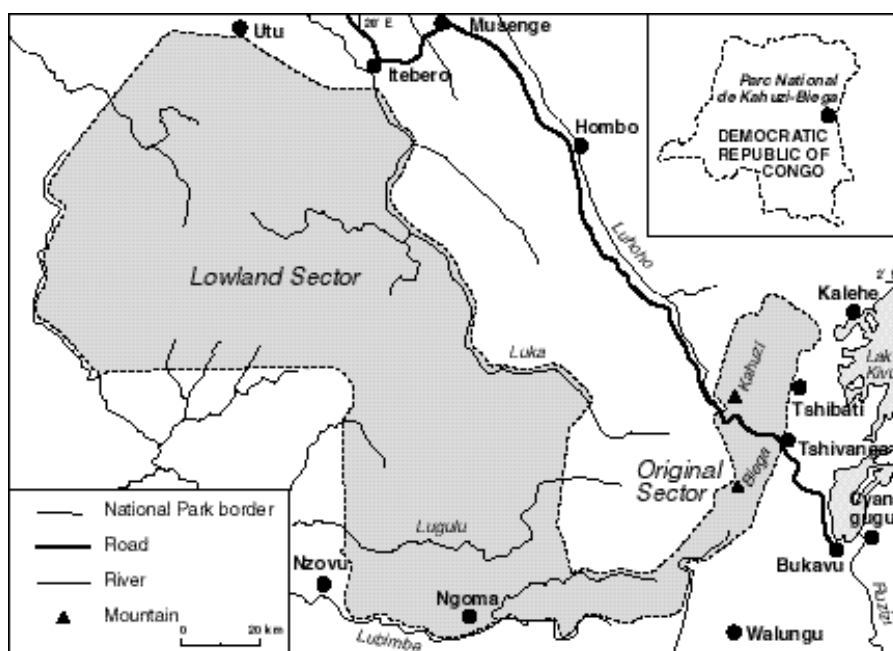
This October, I had long talks with conservators (Mushenji Lusenge and Mankoto ma Oyisenzoo) and all the guides and trackers of the Kahuzi-Biega National Park. In summary, this is their story. The slaughter occurred consecutively within 1999.

Until the end of July 1998, 4 groups of gorillas had been monitored by the park staff on a daily basis for tourism. The Mushamuka group consisted of 10 gorillas (1 blackback, 4 females and 5 immatures), the Maheshe II (Lambchop) group consisted of 15 gorillas (1 silverback, 10 females and 4 immatures), the Nindja group consisted of 25 gorillas (13 females and 12 immatures), and the Mubalala group consisted of 21 gorillas (1 silverback, 1 blackback, 10 females and 9 immatures). Because of an outbreak of internal war in the beginning of August and the following control by the rebel government, the park staff were disarmed and could not enter the park.

The main entrances (Tshivanga and Kahuzi) were closed and transport stopped between Bunyakiri and Bukavu (lowland sector and highland sector). No direct observations had been made and little information had been available on the four groups until the end of March 1999 when the park staff resumed monitoring of the groups and regular patrols without arms.

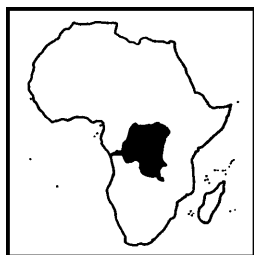
Since July 1998, the Mubalala group could not be found in their former range. In February 1999, the park staff found a large number of gorilla bones scattered within the range of the group. Piles of bones were found burned in some places. They also heard from villagers nearby that dead bodies of gorillas had been seen to be transported by poachers to Kalonge (a village beside the lowland sector of the park). It is suspected that most members of the Mubalala group were killed by poachers in the bushmeat trade. Since then, no gorilla group has been found in this area.

In June 1999, the park staff found a



Kahuzi-Biega National Park

Map: Angela Meder



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fresh nest site of gorillas and counted 12 nests including 3 juveniles' nests. They tried to contact them and confirmed that at least 2 females showed no fear of their approach. These females may be immigrants from the habituated groups (most possibly from Mubalala group). They named this group Mufanzala and started to monitor them. In September, the park staff counted 14 nests. In October, the Mufanzala group moved to the base of Mt. Biega, out of reach of the regular patrol, but efforts to contact them have been continuously made.

The Maheshe II group was found to be a large group (23 gorillas) in the beginning of April 1999, when the park staff started to monitor this group again. Several females had immigrated and some babies have been born in this group since August 1998. However, the group moved to the former range of the Mubalala group where poaching activities were high. Gunfire was frequently heard. At the end of July, the group was lost and no nests were found in this area until August 17, when the park staff saw a poacher's hut. Many gorilla skulls were found there. Poachers smoked gorilla meat on a fire. In September, the park staff arrested a group of poachers with numerous fragments of gorilla fur, skull and bone. It is possible that most members of the Maheshe II group were slaughtered by these poachers for bushmeat.

The Mushamuka group was not found when park staff resumed monitoring activities and patrols in April 1999. This group had probably disintegrated before then. However, a small group consisting of a silverback/blackback, 3 females, a juvenile and an infant was found in the former range of the Mushamuka group. The maturing silverback, named Kaboko, was confirmed to have been born in the Mushamuka group in 1987. He lost his right hand to a snare during childhood. This year he was given a new name, Mugaruka (the

name of the present chief in the village near the Tshivanga Station). A sub-adult male had also lost his right hand and had a disabled left hand. When I observed him this time, a wire rope was still tight on his right wrist. He walked bipedally. It was a very disheartening sight to see. Nevertheless Mugaruka and the other gorillas showed no fear of our approach. The park staff have continued to monitor this group.

The Nindja group consisted of 19 nest-builders with 5 infants when I visited them on April 7, 1999. On April 11, the sound of gunfire was frequently heard from within the range of the Nindja group and since then, the group has not been found. Some time later, a number of dead gorilla bodies were seen being carried by poachers to villages nearby. It is likely that most members of the group were shot and killed by the poachers.

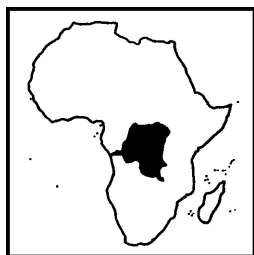
In July, a group of gorillas who had formally ranged in Mbayo (the north of Tshivanga Station) moved into the former range of the Nindja group. The park started to monitor and to habituate this group. They found at least 3 females of the Nindja group associating with them. They counted 16 nests in July and 26 nests in September. Apparently other gorillas have recently joined the group. In October, the group included a silverback and at least 5 juveniles and 3 infants; the total number reached 31. The silverback was named Mishebere (the name of a dedicated tracker in the Kahuzi-Biega National Park) and had a disabled left hand (probably the result of a snare in the past). A 3-year-old juvenile also had a disabled right hand. Mishebere and the other members of the group have been quickly habituated and accepted visitors by September.

I also got sad news about my study group (Ganyamulume group). Although I was not able to visit them this time because of the insecurity in their range area near Tshibati, my field as-

sistant and trackers have visited them on a daily basis. A young silverback was shot dead by poachers in August and a solitary male has recently begun to associate with the group. Fortunately, all females and immatures have remained as a unit and move together. The group size has therefore not changed. However, neighbouring groups have disappeared from this area. Until August of last year, 4 groups had always ranged around Tshibati. However, this year 3 of them have not been found. They too were probably slaughtered for bushmeat, like the habituated groups.

In September, the park authorities summoned 67 suspected poachers and asked them about their recent activities (they had been promised that they would not be punished for poaching during the war). They reported to have hunted animals due to starvation. Most of them had experiences of poaching both elephants and gorillas, even close to the Tshivanga Station. The park authorities decided to employ 40 of them to assist in tracking gorillas and patrolling in the park to break snares and poacher's huts. Guides and trackers visited Mugaruka, Mishebere and Mufanzala groups every day, and a few of them remained with each group to watch them from 6:00 to 18:00 h. Since this decision was made, poaching activities have significantly decreased and no gorilla has been lost in the habituated groups.

Now, the park staff keep 20% of the original part safe for gorillas with frequent patrols (Kahuzi-Biega-Kasirusiru-Tshivanga-Tshibati). It is not possible to monitor the rest of the park which seems to be frequented by poachers. The lowland sector is completely out of control of the park staff. From the tragedies of the former habituated groups, it is estimated that more than 60 gorillas were killed by poachers. If the disappearance of the 3 groups around Tshibati and the



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possible killing of gorillas in unmonitored areas of the park are taken into account, more than half of the gorilla population in the original sector of the Kahuzi-Biega National Park was lost this year. The situation in the lowland sector may be worse. Starvation and the spread of guns among the local people during the war are the main causes of this situation. During my stay in Bukavu, I heard that the meat of gorillas was sold at 25 cents US/kg) (half price of beef!) everywhere.

Guy Debonnet (GTZ: *Gesellschaft für technische Zusammenarbeit* – German development organization) has proposed a population census in the original part of Kahuzi-Biega National Park. Although the political situation is still difficult, the number of surviving gorillas and the present situation of other mammals should be surveyed as soon as possible so that urgent conservation measures can be taken. International teams should be organized and financed to conduct this survey in the near future. The survey team should include the Congolese researchers and resident people. It will hopefully attract international attention to the tragedies of gorillas at Kahuzi and will remind the local people that the gorillas there are both a national and world heritage.

Juichi Yamagiwa

Conservation of Resources in Kahuzi-Biega

In April 1999, Mbake Sivha conducted a study on the utilization of resources in the Kahuzi-Biega National Park with support from the *Berggorilla & Regenwald Direkthilfe*. This is a summary of her results.

The Kahuzi-Biega National Park is situated in one of the most densely populated areas of Africa – up to 300 people per km². The pressure exerted by the human population on the park's resources has increased even further



Production of charcoal in the Kahuzi-Biega National Park

Photo: Mbake Sivha

since the outbreak of war in 1996. Another factor to be taken into consideration is the situation of the pygmies. Formerly, they were settled in the area which was subsequently gazetted a national park. They still depend on it heavily today.

The goal of the study was to develop strategies for the conservation of the resources of the Kahuzi-Biega National Park with the participation of the people living close to the park; women and pygmies were involved according to their representation in the population. 25 villages along the Kajeje–Lemera road were chosen for the study. 213 people, 116 men and 97 women, were interviewed directly with a questionnaire. Of these, 161 people were Bantu and 52 were pygmies.

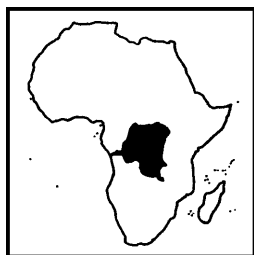
As a result of the interviews, we were able to list 249 wild plant species that are used by the human population. 92.6% of these plants come directly from the Kahuzi-Biega National Park. Only a small part is collected outside the park.

The plants are used mainly for medicinal purposes, construction, food

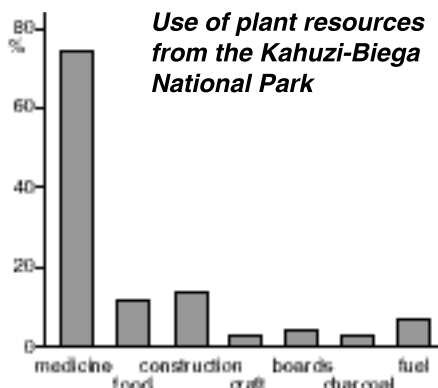
and as fuel. In addition, they are used as a source of timber or can be used to make charcoal and crafts for sale. Plant parts used are mostly leaves. Branches, fruit, bark and roots are used to a lesser extent.

As the plants are used so much, some species have already become very rare in the park. They are at risk of becoming locally extinct. Among them are bamboo, which is cut in the park and sold, as well as many tree species harvested for timber. The species *Ficus exasperata*, for example, has already become very rare. Another great problem is hunting. The demand for bushmeat in the cities and the continuing interest in ivory and trophies on the world market increase the pressure on the park's resources.

The pygmies are especially concerned because their original home is in the forest. When the park was created in 1970, they were forced to leave the Kahuzi-Biega forest and to change their lifestyle completely. There have been efforts to integrate them into the agricultural tradition of the Bashi but this has not been very successful.



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Hunting is still very important in their tradition and culture.

The collection of medicinal plants is traditionally the task of men. Women usually use the park's resources in a less destructive way; they only collect essential forest products like firewood, mushrooms and caterpillars.

In order to ensure a sustainable future for the Kahuzi-Biega National Park, the interviewed population recommends the following strategies for the protection of its resources:

- involve the local population in all activities and the benefits from the park's resources and thereby create incentives for protection,
- carry out a study in order to implement projects that improve the living conditions of the local people so that they no longer have to resort to the park's natural resources,
- identify all plant and animal species utilized by the human population,
- create a buffer zone around the park through reforestation,
- cultivate forest plants in private forest concessions, especially species used for medicinal purposes in communal gardens,
- conduct small-scale projects to improve the breeding of livestock,
- support the integration of the pygmies into the village communities,
- increase protection measures in the park itself.

Only if we succeed in bringing the

conservation of the national park into line with the interests of the human population living nearby, will we succeed in conserving the park's resources in the long-term.

Mbake Sivha

Present Research in the Kahuzi-Biega Park

The so-called "civil war" in the Democratic Republic of Congo has seriously affected the research in Kahuzi-Biega National Park. Most of the infrastructure has been destroyed and many research programs, mainly those carried out by foreign researchers, have been suspended for a long time. Before the war, two research sites for a long-term study were established at Kasirusiru and Tshibati in the montane forest of the park. The study deals with co-existence and competition between gorillas and chimpanzees inhabiting sympatrically the montane forest of Kahuzi-Biega. Data collected in both sites are currently under analysis in the Laboratory of Primatology at the Centre de Recherche en Sciences Naturelles de Lwiro.

Unfortunately, due to the war, the Kasirusiru site was completely destroyed in 1997; monitoring is still ongoing at Tshibati but not as intensely as in the past. Since January 1998, we have timidly resumed field work at Tshibati. However, when fights break out between armed groups in the park, we are obliged to stop working, which hinders our attempts to maintain continuous research.

We are greatly indebted to our brave trackers who, despite the insecurity, tried to follow the apes in the forest, collect their faeces and monitor fruit phenology along a belt botanical transect of 5,000 m in length and 20 m in width. It contains most types of vegetation common to areas in which gorillas and chimpanzees range sym-

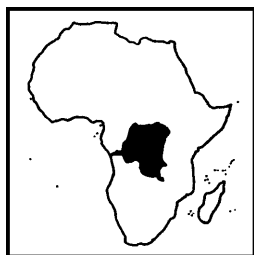
patrically at Tshibati. Fruit production is monitored every 15 days by recording the presence of young leaves, flowers and unripe or ripe fruits in 1,758 trees and shrubs with a diameter at breast height of at least 10 cm labeled in the transect. This vegetation survey aims to assess availability and productivity of fruit eaten by the apes in the study area.

The security within the park is still hazardous. Presently only about 20% of the old part (montane area) of Kahuzi-Biega National Park is accessible by the park's staff. The remaining 80% of the area is controlled by several armed bands settled within the park; this situation shows how threatened the wildlife in the forest of Kahuzi is nowadays. This year more than 100 gorillas are estimated to have been killed including those that have been well habituated for ecotourism. All the known silverbacks (in some cases, together with all members of their families) were killed for meat and trophies. As a result of this, the different gorilla families were dislocated. The tragic consequence of this massacre is the loss of the history of gorillas inhabiting the montane forest of Kahuzi-Biega, which has been studied for 3 decades.

Kanyunyi A. Basabose

Involvement of Local People in the Conservation of Kahuzi-Biega

Before the war, 100 guards carrying guns were conducting daily patrols in the whole park and poachers were afraid of hunting animals inside the park, dreading to be caught or shot dead. With the war, all the guards were disarmed and the security in the park deteriorated. As a result of the free circulation of weapons brought about by the war in the region, criminals were able to acquire weapons and hunt inside the park. Since then, massacres



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have been perpetrated on elephants and gorillas by poachers (hundreds of skulls have been recently collected), not to mention numerous monkeys, bushpigs and antelopes continuously hunted for the bushmeat trade.

Meanwhile, POPOF (*Pole Pole Foundation*), a non-governmental organization led by local people, was shocked by this animal slaughter, and started an educational program in conservation for the neighbouring population. The program aims to encourage human societies living along the Kahuzi-Biega National Park's boundary to cooperate in wildlife conservation.

POPOF is a non-profit NGO created in 1992 by local people from villages close to the eastern boundary of the old part of the Kahuzi-Biega National Park. The President of POPOF, John Kahekwa, has been working as a tourist guide for the park since the 1980s, and has habituated the Nindja Group. He created POPOF mainly to protect the gorillas against poaching; however, POPOF now works for the conservation of all the wildlife of Kahuzi-Biega National Park. In order to encourage respect and protection of gorillas (seen by POPOF as a national totem animal to be protected in any circumstances), POPOF has set up a discussion program with artists. Some of them are former poachers. They create simple artefacts of gorillas (wood carvings, paintings, T-shirts, caps, hip pockets, patches, etc.).

Through the art activities, POPOF has succeeded in drawing the villagers' attention to gorilla conservation issues which are now perceived by them as a serious problem to be solved. The reward of POPOF's artists is the benefit they get from the sale of their crafts to the tourists who come to see the gorillas. Unfortunately this activity has seriously suffered from the war in the region as tourists are no longer visiting. The region is now characterized by a high level of poverty; people do not have

enough food to eat and this situation has pushed them to enter the forest for hunting animals. Deeply distressed, POPOF is warning people about an irreversible wildlife catastrophe if animal killings do not stop immediately.

POPOF is organizing seminars, conferences and round tables during which wildlife conservation issues are thoroughly discussed between scientists and villagers. From the findings of these meetings, it seems that another reason which induces people to enter the park is the search for fire-wood and timber. This pushed POPOF to create a tree nursery of plant species most valued by local people. Recently, POPOF has distributed more than 20,000 seedlings to the villagers and taught them how to grow these plants to maturity. The villagers are organized in groups according to their village of origin. POPOF is now planning to create a primary school for children from villages close to the park, where education will emphasize conservation topics.

POPOF has launched an overseas campaign searching for support and collaboration. Since 1996, POPOF has succeeded in attracting Japanese people to the conservation of gorillas in the wild. There is now a Japanese wing of POPOF which publishes the biannual POPOF News in Japanese.

Kanyunyi A. Basabose

The New Gorilla Reserve at Mbuhi

During the years 1920–1940, several gorillas were captured between Alimbongo and Bingi. Alimbongo is located in the southwest of a bamboo forest which covers the highlands west of Lake Edward. Now that forest is limited to Mt. Kyabirimu. All the bamboo forest which still existed 40 years ago has been destroyed. Only small areas with bamboo remain

between cultivated fields at an altitude of 2,000–2,250 m.

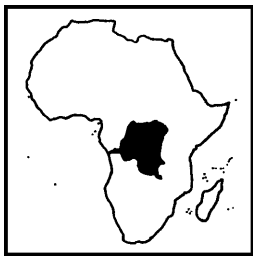
Around 1970, the local population realized that the gorillas were disappearing in that area because of the destruction of their habitat. The human population increased because of transplantation programs introduced in the 1950s: MIPI (*Migration of Indigeneous Populations*) and sporadic actions under the supervision of the Butembo Diocese (Catholic Church). In 1989, the UGIPA project was launched (*Union des groupements pour l'Installation des Populations*, financed by Canada Cooperation). In March 1999, another program started with CCFD support (*French Catholic Committee for Development*). These programs translocated people to the fertile land of Bingi–Vuyinga. In addition, there are migration movements. Some people join their families, others are searching for gold.

Today, a catholic parish is based at Mohanga, 50 km west of Bingi. In that area, Esteban Sarmiento and Thomas Butynski (1997) found evidence of gorillas at Mbuhi: traces on paths used by the apes, some old nests and some parts of a male gorilla skeleton which has recently been identified. Gorillas are not only living at Mbuhi, but also at Mohanga and from Busigha to Kasuo, 60 km from Lubero.

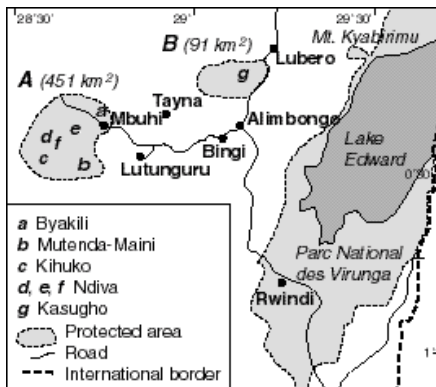
The most important threats to the gorillas are now:

- overpopulation in the mountainous part of Lubero territory (about 300 people/km²),
- increasing destruction of the forest as a result of immigration, for example in Bapere collectivity where the population density increased from 3.3 people/km² in 1982 to 10 people/km² in 1998.

Attempts are being made to find a solution to these problems. The aim is to protect the forest in the western part of Lubero territory. Jean Claude Kyungu and Kakule Vwirasihikya visited the area together to sensitize lo-



D. R. CONGO



Area of the planned Tayna Gorilla Reserve (Mt. Kyabirimu is also known as Mt. Tshiaberimu)

Redrawn from a map by J.C. Kyungu

cal chiefs regarding the necessity for biodiversity conservation in that area. On April 8, 1999, the chiefs of Batangi and Bamate signed an agreement to set land aside in order to create a new gorilla reserve. The purpose of the reserve is to enable conservation of gorillas and biodiversity, communication about environmental issues, scientific research, sustainable development and community participation. During a public meeting, we explained this to 113 people. The boundaries of the Mbuhi-Busigha Reserve still have to be fixed. A gorilla conservation program will be initiated together with several local developmental NGOs, the biodiversity commission of the province, and the ICCN (*Institut Congolais pour la Conservation de la Nature* – Congolese institution for conservation).

From April to September 1999, two exploratory excursions into the area were carried out. The last excursion was conducted by J.C. Kyungu and David Matsitsi and included a systematic search for gorilla tracks and dung as well as direct observation and a socio-economic study. They identified 7 interesting sites in the new reserve:

- a part of Byakili site (20 km from Mbuhi) already identified in July

1999 where 2 groups are living. It is a high mountain.

- Ndiva, a mountain chain subdivided into 3 sub-sectors: the mountains of Makoba, Muleya and Kihuko. In these sectors, primary forest still exists. Gorillas and chimpanzees are concentrated there. We contacted hunters and guides who led us in the forest. They spoke of 5 gorilla groups with 2, 6, 8, 9 and 10 members, respectively. The first group had originally consisted of 5 individuals, but 3 were killed at the beginning of 1999. We were also able to observe gorillas there (the group of 8) near Pasido. Different species of birds, primates and other mammals are living there, and the rivers are full of fish.
- Maini, on the border of Lubero and Walikale Territory, with new forest. Tracks and dung of gorillas were found there recently, and 3 gorilla groups were observed. Moreover, there are buffaloes, elephants, leopards, okapis, primates and many other species, according to reports from the population. This site is a long mountain chain from Kasumba to Mutenda.
- Mutenda, a very high mountain between Lutunguru, Majengo and the beginning of the mountain chains of Maini, with primary forest. It is an important site for gorillas. Gorilla movements between Mutenda and Maini were observed.
- Kiranga near Byakili, where volcanic activity was discovered. It seems that one of the 3 gorilla groups from Byakili uses this area as far as Kitowa and other sites.
- Bilate, 17 km from Lutunguru toward the south. We have not yet visited this site. The local people informed us about the presence of gorillas, living either in pairs or alone, as members of their families had been killed in previous years. There are old gorillas in Sake who are less ag-

gressive to human presence. Some chimpanzees reportedly live north of Muhanga.

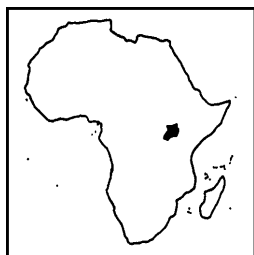
- Kasugho, the cave of Katwa ka Ndonga, a special site. This cave contains seats in the rock, rooms in several floors and animals, especially bats. Chimpanzees live near the cave. Not far from the cave are the falls of Kasugho with a height of at least 10 m. The Kasugho site is of interest for ecotourism.

As a result of this excursion, it was recommended that guides should be trained, surveys should be made of the fauna, flora and ecology of the area, and there should be a veterinary research center. The new reserve will be called Tayna Gorilla Reserve, a community conservation project.

Jean Claude Kyungu and Kakule Vwirshikya



Claude Sikubwabo Kiyengo with his new computer from Germany



UGANDA



Picnic hut in the Community Campground before the looting

Photo: Sylvia Wladarz

Gorilla Tourism in Uganda

After the slaughter of tourists in Bwindi, the gorilla parks in Uganda opened again in April. The number of visitors in Bwindi rose from 85 in April to 193 in September.

The Community Campground that was destroyed by the rebels has been reconstructed in the meantime. The *Berggorilla & Regenwald Direkthilfe* partly funded the rebuilding of the burnt picnic hut and the supply of stolen equipment. We were told that the campground would be re-opened in December 1999.

Fires in Bwindi Impenetrable National Park

At the end of July, a large area in the southern part of the Bwindi Forest was destroyed by fires. The fires were probably set accidentally by honey gathering pygmies. The local population tried to extinguish the fire but they lacked the right equipment. Three people were injured while fighting the fire. At the beginning of August, rain started and extinguished the few remaining smoldering areas. The ITFC (*Institute of Tropical Forest Conservation*) has

started to examine the damage caused by the fire.

A Different Conservation Concept

MBIFCT (the *Mgahinga and Bwindi Impenetrable Forest Conservation Trust*) is a unique experiment in conservation funding. Its aim is to promote the conservation and protection of the biodiversity in both Mgahinga Gorilla National Park and Bwindi Impenetrable National Park. The principal strategy is to work with the communities close to the parks in an effort to help mitigate their loss of access to natural resources.

To achieve its aim, the Trust conducts awareness and education programs and co-finances a wide range of traditional rural development projects which have been self-identified by individuals, groups and communities. Funded projects include income generating schemes such as small-scale agriculture, agroforestry and bee-keeping, as well as social projects including water catchment, primary education classrooms and health facilities.

The Trust is controlled by a Board

of Trustees and a Steering Committee made up of representatives from the communities surrounding the two parks, local and international NGOs, the local tourism industry and the Ugandan Government. Proposals from 50 parishes are accepted, representing a population of more than 300,000. For the first funding cycle, more than 4,000 proposals were received and 50 projects were eventually funded.

MBIFCT was established in 1996 with an initial endowment of US\$ 4 million from the GEF (*Global Environment Facility*) of the *World Bank*. Vital support was also provided by USAID (*U. S. Agency for International Development*) and operational costs are funded by the Netherlands Government. The capital is invested overseas, and it is planned that as soon as possible only the annual income will be used to fund the projects. 60% of the project funding is allocated to community projects, 20% to park management and 20% to ecological research and monitoring.

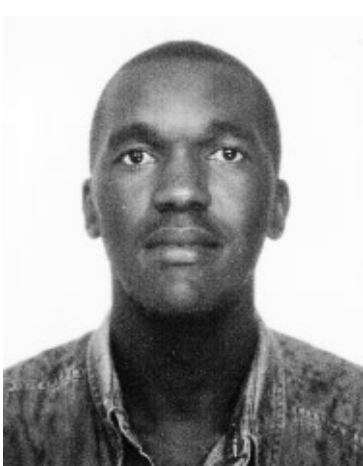


Rangers of Mgahinga Gorilla National Park with caps, gumboots and T-shirts from our storage

Photo: Debby Cox



UGANDA



Our Assistant in Uganda

At our last general meeting we announced that we would try to find a local assistant in Africa. Thanks to Ursula Karlowski's contacts, we succeeded in employing the 24-year-old Ugandan William K. Mugisha in August. His home is situated in Kisoro District. In the summer of 1999, he finished his studies of biology and psychology at Makerere University in Kampala. Working part-time, he will manage our office and store in Kisoro, provide information on the current situation in the areas inhabited by the mountain gorillas, function as our representative, and keep contact with the local authorities and organizations. At the moment, we are in the process of setting up an efficient communications system. Currently, we are still using a satellite fax.

Although William Mugisha has been working for us for only a short time, it has already become obvious that his constant presence makes our activities much easier. It also meets with approval from other people and organizations. It is especially important that our assistant stays in contact with us to work efficiently, and therefore he needs modern office equipment. We estimate the cost of furniture and equipment to be DM 4,000–5,000. In addition, the monthly fixed costs for the office and for William Mugisha himself amount to about DM 550.

We hope that we can count on your support in this important project! Through our colleague in Kisoro we can act much faster and assist the gorilla conservation projects more efficiently. Our support is needed wherever mountain gorillas occur: in the Democratic Republic of Congo, Uganda and Rwanda. William Mugisha is our local contact. He tells us what the rangers need and makes sure that the equipment reaches its destination without problems. Some materials will be bought by William Mugisha in Uganda.

Since we set up the store we have realized how great the demand for equipment is. In the last few months we have received urgent requests from Rwanda and Congo. The material for Rwanda will be delivered shortly. However, in order to fulfill new requests, we need more material. By now, a new delivery is on its way to Uganda. In the east of the Democratic Republic of Congo it is still very difficult to protect the national parks. In September, we were able to support the rangers with equipment from our store. Ute Eilenberger helped to organize the transport and made sure that the material arrived at Kahuzi-Biega. Nevertheless, our support is but a drop in the ocean because much more is needed. We will make more clothes and equipment available to the rangers as soon as we are able to. Medicine and money for food is also needed urgently. We have promised to address this.

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To support the rangers, we need your help!

Donations of money and equipment are very welcome; however, regarding the equipment, certain requirements should be met. If you want to send material to us, we therefore ask you to contact Iris Weiche first:

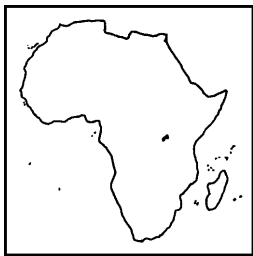
Tel./Fax: +49-7071-31805

E-mail: I.Weiche@t-online.de

Please send checks to:

Rolf Brunner, Lerchenstr. 5, 45473 Muelheim, Germany





RWANDA

News from Rwanda

The tourism in the Parc National des Volcans has increased since it started again in mid-July 1999. For months, no traces of organized armed groups have been seen. Anti-poaching patrols are active and several poachers have been arrested. An especially high number of buffalo snares was found on Mt. Visoke.

In July, 38 rangers and 30 guides were trained in paramilitary techniques and learned how to give first aid. We taught them how to avoid disease transmission and how to behave when a gorilla has to be treated in a medical emergency. We also trained them how to report medical problems of the gorillas and how to fill in medical monitoring forms. Moreover, we explained preventive methods and the meaning of visitor regulations.

Currently, visitors are still accompanied by soldiers. For the future it is hoped that the rangers themselves will be allowed to carry weapons in order to decrease the number of people inside the park. The invasion of park animals in general and buffaloes in particular into fields close to the park has been controlled successfully by digging ditches.

The park authorities would need more functioning vehicles and petrol as well as raingear and walkie-talkies for communication. Most of the garbage that had been left behind in the park during the war has in the meantime been removed by 100 people who had been employed especially for this task. Rangers are camping on the park boundary in four locations in order to save petrol, some of them in park staff houses that were destroyed in the war.

Each of the 4 gorilla groups habituated for tourism (Suza with 32 animals, Sabinyo with 10, Amohoro with 17 and Group 13 with 7) has its own rangers and guides who are joined by 2 ad-

ditional guides when tourists visit the gorillas.

Ute Eilenberger

From the Mountain Gorilla Veterinary Program

Following a request from Dian Fossey to Ruth Morris Keesling shortly before Dian Fossey's death, the Mountain Gorilla Veterinary Center was founded in 1986, funded by the *Morris Animal Foundation*. James Foster, a renowned veterinary, was asked to establish the center in Kinigi at the foot of the volcanoes. Since then, 12 veterinarians have been working for the center.

Together with my colleague Antoine Mudakikwa, I am carrying out the health service of the mountain gorillas living on the Virunga Volcanoes in Rwanda and Congo. When required, we also support our colleagues in Uganda.

The risk of disease has to be considered the greatest threat to the mountain gorillas, who are otherwise well protected. Among other tasks, we have to continuously monitor the state of health of all habituated (research and tourist groups) and unhabituated gorillas (if they are seen) by observation and non-invasive examination methods (faeces, urine). A program of faecal tests is conducted on a regular basis in Rwanda and Congo. In addition, we are also developing new examination



The Mountain Gorilla Veterinary Center at Kinigi with Mt. Sabinyo

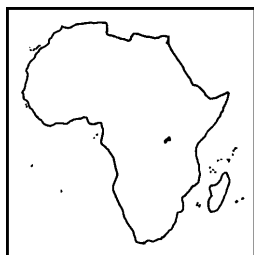
Photo: Ruth Keesling

methods.

If the gorillas fall seriously ill with diseases transmitted by humans, or if they are injured or suffer from a life-threatening condition, they might be treated under anaesthetics. As each individual is important for the gene pool and living conditions are not natural any more because of the strong human impact, this is considered justified. In 70% of treatments under anaesthesia, snares are removed or injuries caused by snares are treated. These injuries can cause the animal's death if the wound gets infected and the infection is followed by septicaemia. Thanks to the *Mountain Gorilla Veterinary Program*, it has been possible to save every gorilla observed to be ill since 1990.

In addition, we determine basic physiological parameters with blood, faeces and urine samples from gorillas that are anaesthetised for medical reasons. Moreover, we are conducting non-invasive research of causes, epidemiology, clinical symptoms and pathology of diseases of free-ranging mountain gorillas. Animals found dead in the park are taken to the Veterinary Center for postmortem examination. This enables us to determine the cause of death and to identify changes caused by disease and age. Tissues, hair or body fluids of dead or anaesthetized animals are stored in a biological resource bank founded by the *Morris Animal Foundation* in 1999 to be used in further research. The sampling itself, the treatment of samples and the data processing are our tasks. The information gained in the process helps us to develop an up-to-date health care program for the mountain gorillas and to monitor its implementation.

Disease transmission from the surrounding human population is considered the greatest threat to the mountain gorillas' health. Therefore we are recording the most important diseases of the people living close to the park in order to introduce a health care pro-



RWANDA

gram for those members of the park staff and researchers who have the closest contact with the animals. We monitor the compliance with the rules and regulations for visitors, which we helped to make more stringent in February 1999.

We train park staff in Rwanda, Uganda and the Central African Republic on disease transmission paths from humans to primates and the other way around and we explain preventative methods and the meaning of the visitor regulations. Moreover, we instruct them how to write medical reports and to help the veterinarian with emergency treatments with or without anaesthetics. For the future it is planned to train soldiers who enter the park on a regular basis as well.

We ensure the medical care of injured or other wild animals that are taken to the center and we take care of animals in the other protected areas of Rwanda, Nyungwe and Akagera. At the moment, my colleague helps to implement a health program for the western lowland gorillas in the Central African Republic. In the future, we also hope to provide medical care for the eastern lowland gorillas in the Congo, as this was requested by the authorities of the Kahuzi-Biega National Park.

In addition, I am involved in all other tasks which the management of such a center requires: public relations, accounting, purchase of equipment, cooperation with the local park authorities and other gorilla NGOs as well as participation in their meetings, making contacts and exchanging ideas with nature conservation organizations in Rwanda and abroad, development and realization of research programs, collaboration with our colleagues in Uganda, communication with our research director in the USA, the passing on of information and keeping in contact with the *Morris Animal Foundation* and Ruth Keesling, our lifetime trustee, laboratory work and maintenance, training and

education of staff, etc. In our spare time, we support the local veterinarian in surgery on small animals.

All those mountain gorillas who showed symptoms of disease during the last 3 months (July to September 1999) and therefore underwent health controls through the *Mountain Gorilla Veterinary Program* have recovered by now or are already in the process of recovering.

A 6-year-old juvenile called Arusha was found dead by park staff next to its night nest. We did a postmortem examination. As a preliminary result, the cause of death has been given as

a paralytic ileus. The examinations are not finished yet. In November, a 31-year-old female in Shinda's group died, probably from old age. She had 3 miscarriages in succession, the last one in October. We are still waiting for the histo-pathology results of these cases.

Ute Eilenberger

Operation Amy

In May 1999, personnel from the *Mountain Gorilla Veterinary Project* could treat the 3-year-old female gorilla Amy Agago, a member of the Sabinyo group. Amy had a rope from a snare around her right wrist. She was darted with an anesthetic and the wound was examined. The rope had been embedded in her wrist for a considerable period and the skin had grown over it as nobody had been allowed to enter the park for 2 years to treat the gorillas. About 5 inches of rope dangled out of the wrist. Ken Cameron cut and pulled out the rope, flushed the wounds and injected antibiotics.

The day after surgery, Amy was observed back in her group and the silverback was protecting her. Later he was watching her carefully. In August she was observed back in the group, walking on both hands and even scratching herself with the injured hand.

Summary of a report by Ruth Keesling



Amy Agago's wrist with the rope and after surgery

Photos: Ruth Keesling

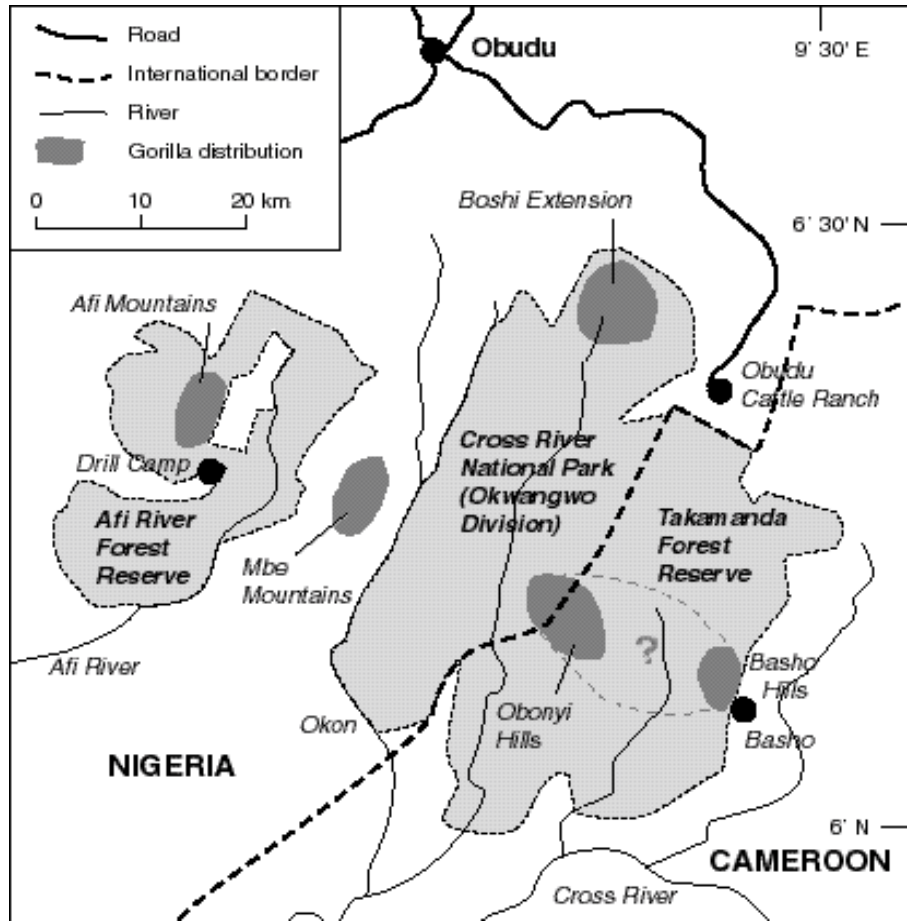


GORILLAS

Cross River Gorillas – a Neglected Subspecies

In 1904, Paul Matschie, a pioneer in mammalian taxonomy working at the Humboldt University Zoological Museum in Berlin described a new species of gorilla inhabiting the watershed of the Cross River in what was then German Cameroon, close to the border of British-governed Nigeria. Matschie named the species *Gorilla diehli* in honor of Mr. Diehl, an employee of the German Northwestern Cameroon Company, who had collected the gorilla skulls on which Matschie based his new species. According to Matschie the 1) short skull, 2) short molar row, 3) palate shape, 4) and skull base shape distinguished *Gorilla diehli* as a new species separate from *Gorilla gorilla*.

Matschie also noted in his description that one of the female skulls collected by Diehl from the same area was not *G. diehli*, but *G. gorilla*, and claimed both species existed together in the Cross River catchment area. The potential occurrence of two morphologically distinct gorillas from the same locality supported Matschie's claims that the two were distinct species. Without the intrinsic barriers to interbreeding



Gorilla distribution in the Cross River region at the Nigeria–Cameroon border
Map redrawn from a drawing by John Oates



that characterizes different species, two gorilla populations could not possibly inhabit the same isolated area and remain morphologically distinct.

Subsequent classifications by Rothschild in 1904 and Elliot in 1912 agreed that the Cross River gorillas were not a new species and demoted the population to the subspecies *Gorilla gorilla diehli*. Neither author examined the specimens described by Matschie, or tested Matschie's claim that two morphologically distinct gorillas inhabited the Cross River watershed. If Matschie's claim was true, *G. g. diehli*

Gorilla from the Afi Mountains

Photo: Kelley McFarland

could not possibly be a subspecies.

Harold Coolidge's revision of the genus gorilla in 1929 placed what was then recognized as *G. g. diehli* into the subspecies *G. g. gorilla*. He based his decision largely on anecdotal accounts of gorilla distribution, believing Cross River gorilla populations were continuous with those of other western lowland gorillas. Coolidge, like his earlier counterparts, failed however, to address Matschie's claims. Although Colin Groves in 1970 revised gorilla taxonomy and added a subspecies (*Gorilla gorilla graueri*) to the eastern gorilla populations, Matschie's claims remained unchallenged and Coolidge's



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taxonomy remained by and large the framework of the currently accepted classification. By now, the Cross River gorillas were known to occur in eastern Nigeria as well as southwestern Cameroon, and they had at least been recognized by Groves as a distinctive far-western population.

Working on primate distribution and behavior in West Africa for the past 30 years, John Oates had long ago recognized the Cross River watershed, the Cameroon highlands and Bioko island as an area of primate endemism. The Sanaga river to the south of this area seems to act as a barrier to primate migrations from the extensive forests of western equatorial Africa, which cover most of southern Cameroon, Gabon, Equatorial Guinea, northern Congo and southwestern Central African Republic and are inhabited by *G. g. gorilla*.

At least 6 Old World monkey species or subspecies appear to be unique to the Cross River-Cameroon Highland-Bioko area. These monkeys include: Preuss's red colobus (*Procolobus badius preussi*), the drill (*Mandrillus leucophaeus*), Martin's putty nosed guenon (*Cercopithecus nictitans martini*), the red-eared guenon (*Cercopithecus erythrotis*), Preuss's guenon (*Cercopithecus preussi*) and the crowned guenon (*Cercopithecus pogonias pogonias*). The area is also home to several distinctive prosimians. Given such endemism, John Oates had suspected Cross River gorillas could possibly be a unique taxon.

By the late 1970s, however, a general view had developed that the Cross River gorillas had been extirpated at least from Nigeria if not from Cameroon. But in 1983 surveys by Clement Ebin of the Cross River State Forestry Department obtained evidence of gorilla populations living in Nigeria's Mbe Mountains. Further surveys in Nigeria and Cameroon in the last decade have established the presently-known distribution of the Cross River gorillas (map



Gorilla from the Afi Mountains

Photo: Kelley McFarland

on page 14; *Gorilla Journal* 16 and 18) which probably number no more than 200 individuals in 4 isolated populations but still exist.

John Oates began field studies on the Cross River gorillas in 1990, and Esteban Sarmiento has been focusing his attention on the museum specimens of these apes. Museum records in London and Berlin showed that there were at least 100 Cross River gorilla skulls in museum collections for us to compare. Many of the skulls at the British Museum of Natural History, London, however, lacked specific locality areas and/or were too damaged to be included in the study.

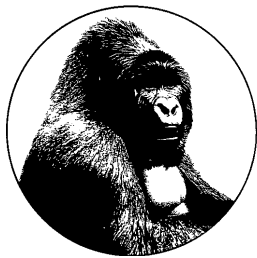
The Royal College of Surgeons Hunterian Museum in London had been bombed during World War II and the Cross River gorilla skulls housed there had been destroyed. The same fate was believed to have befallen the Berlin specimens including those described by Matschie. But the bombs that fell on the Humboldt University Zoological Museum (the damage of which can still be seen today) only destroyed paperwork and records, the specimens

were still intact. Renate Angermann, curator of mammals, had recognized the importance of this collection and had already located and recatalogued all the Cross River gorilla specimens by the time Esteban Sarmiento was ready to analyze them.

Comparison of skull measurements of non-Cross River western gorillas (approximately 55 males and 30 females) to Cross River gorillas (40 males and 20 females) including all those specimens referred to by Matschie in his description supported most of Matschie's claims. Cross River gorillas have shorter skulls, shorter molar rows, narrower palates, and a relatively broader skull base than the other western gorillas. In addition, Cross River gorillas have smaller cheektooth surface areas, smaller gapes and much smaller braincase volumes than do the other western gorillas. Cross River gorillas also have a suite of characteristic non-metric cranial traits, which collectively are not seen in any other gorilla population.

Statistical analyses on the skull measurements distinguished both male and female Cross River gorillas from other western gorillas and correctly assigned all individual specimens to their respective population. The statistical analyses, however, also proved that Matschie was wrong. The single female skull from the Cross River area, which Matschie claimed to be *Gorilla gorilla*, was indistinguishable from the other Cross River gorillas. It was clear, therefore, that the Cross River watershed was not inhabited by two morphologically distinct gorilla species.

In combination the skull measurements suggested that Cross River gorillas are probably smaller in body size than *G. g. gorilla*. Long bone and vertebral measurements from the single male and single female skeleton available, however, indicate a body size similar to that of *G. g. gorilla*. In fact, the single female skeleton measured is



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one of the largest females in our western gorilla sample. Moreover, Cross River gorillas do not seem to differ in long bone proportions (upper limb to lower limb, arm to forearm, and thigh to leg ratios) from the other western lowland gorillas.

Measurements of the male hand and foot segments show that this animal has comparatively shorter hands and feet. Unfortunately, with only two skeletons it is not possible to determine if such body and limb segment proportions are representative of the whole population.

Our attempts to associate the morphological differences we found in Cross River gorillas with their ecology is confounded by considerable differences in the habitats presently occupied by the four Cross River gorilla populations. We suspect many of their unique cranial characters may be associated to a diet that, historically, has been made up of smaller drier and harder foods than usually consumed by the other western gorillas. Such a diet could be a corollary of the relatively drier habitats and colder temperatures that exist at the northern latitudes they inhabit.

Data currently being analyzed by Kelley McFarland from her 1996–1999 field studies on the Afi Mountain population of these gorillas (*Gorilla Journal* 17) may help to throw some new light on these ecological questions.

Regardless of what environmental variables their morphological differences are precisely associated with, it is clear that these differences separate Cross River gorillas as a taxon distinct from other western gorillas. Because Cross River gorillas are more than 250 km northwest of the nearest western gorilla population and no other morphologically distinct gorilla shares its range, we are convinced that their differences can be best summarized by placing them in the subspecies *Gorilla gorilla diehli*. Our scientific study

supporting a subspecies distinction of Cross River gorillas will appear in an upcoming *American Museum of Natural History Novitates* publication.

*Esteban E. Sarmiento
and John F. Oates*

Limbe Wildlife Center, Limbe, Cameroon – People and Gorillas

For years I'd been hearing and reading about the horrors of the bushmeat trade – where animals, often endangered or threatened, are killed for their meat – not for needed protein to sustain human populations, but as a luxury, like caviar, to a growing middle and upper class. The increased wealth of local populations is frequently the result of logging interests, destroying old growth forests for quick, short-term profits. The forests can regrow, given enough time, but for many species of animals and plants, the rampant destruction currently going on will mean extinction.

Gorilla Haven (see our website at <http://www.gorilla-haven.org> for more information) is designed to help captive gorillas lead more enriched lives. It makes sense that we also be actively involved in helping gorillas in Africa, where gorillas are extremely rare in captivity, and where their numbers in the wild are dwindling fast, due to deforestation, human population encroachment and the bushmeat trade. Unlike chimpanzees or monkeys, gorillas seem to give up and die rather than endure the hellish lives captive primates often face in Africa and elsewhere.

Inspired by stories in the *IPPL Newsletters*, *Gorilla Haven* has supported the Limbe Wildlife Center for several years. In May 1999 I visited Limbe to see first hand just how and if our money was being put to good use. This was immediately confirmed when

I met the people and animals at Limbe, and saw how much could be done with relatively little money. Zoos spend millions of dollars on fancy exhibits, which is a great way to inspire and educate the public about the plight of animals in their native habitats, as well as to provide a better life for their captive charges. However, if a mere fraction of such spending could be sent to help Limbe, the effects could/would be astounding. For US\$ 50,000 a year, Limbe can operate. For US\$ 100,000 a year, Limbe can build larger, better enclosures. For US\$ 250,000 a year, Limbe can thrive and also expand their unique and effective education program, the Limbe Wildlife Center *Nature's Club*, into other parts of Cameroon, including the bush where hunting endangered animals is unfortunately still accepted. Alas, currently they cannot raise operating costs and each day is a struggle for survival. It's clear without IPPL's, *Gorilla Haven's* and other's help, Limbe wouldn't be as far along as they are today, but the need is constant and the future is far from secure.



Gorilla keeper Bama with gorillas

Photo: Jane Dewar



GORILLAS

The goal of Limbe is to release all animals back to the wild, if and as possible, but with great apes this is problematic, if not impossible, since hand-reared or captive animals cannot survive in the wild. Hopefully if funds are raised, Limbe will be able to release these gorillas (as well as other animals) to a large preserve, where the animals can be protected from hunters and provisioned, but left alone to live a life as free as possible. When I visited Limbe the zoo consisted of all primates (oh, yes, there was a crocodile and a snake too!), including 19 chimpanzees, 7 gorillas, a variety of monkeys including mangabeys and guenons, as well as 12 of the highly endangered drill baboons – over 80 individual primates total. All the animals at Limbe started life as victims of the bushmeat trade, survivors of massacres that killed their families. Such survivals are rare, making their stories even more special.

Limbe's staff is remarkable. Linda Percy and Tony Chasar, two American volunteers, worked tirelessly, assist-

ing and training a staff of wonderful Cameroonians. In July they left to go work at Ndoki in the Congo, replaced by Jackie Belle, who's continuing their good work at Limbe. Gorilla keepers, Wilson, Bama and Jonathan are loving, eager and intelligent men anxious to learn more. No one at Limbe, except Jonathan, who went to Jersey for some training, has ever seen a silverback gorilla! Abel heads the *Nature's Club*, where school children from all over can come to the zoo (free of charge) to learn about the animals and the environment.

Many of the Limbe staff started working there as volunteers. The concept of volunteering is usually a concept of wealthier nations, where each day isn't spent just trying to survive. Since Limbe, like so many people in Africa, struggles to get by with the bare necessities (food, shelter, healthcare, etc.), the idea that someone with the same struggles would offer their time to work with no monetary reward in return is truly remarkable. But remarkable people is why Limbe is



Nyango

Photo: Jane Dewar

so unique.

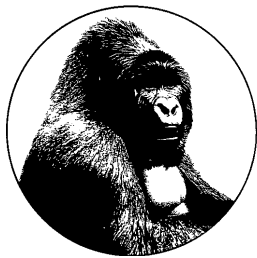
Stephen's story is classic: Raised in a hunting village, where bushmeat and killing gorillas and chimps was routine, Stephen caught a viper (a snake) one day and brought it to the zoo in the hopes of selling it. The zoo had no money, but they said they'd take the snake and Stephen agreed to come back later when they had money to give him. He kept returning to the zoo for money that was never there, but in the process he started to talk to the staff and observe the animals. Then he started volunteering, helping around the zoo and before he knew it, he had a job working with the drills. Today Stephen is a converted conservationist, who doesn't eat meat and who returns home to his village to tell his father and the village elders why bushmeat is not a good thing! His brother, Johnson, is now a chimp keeper, so perhaps there will be at least one less village hunting bushmeat!

But the gorillas were my main reason for going. Reading about Pitchou's struggle to survive in the IPPL journals, I wanted to see her for myself. I will confess I fought back tears several times during my 7 day stay at Limbe, but they were all tears of joy tinged with



Evindi

Photo: Jane Dewar



GORILLAS



Pitchou when she arrived at Limbe (left) and in May 1999.

Photos: Limbe (left), Jane Dewar (above)

the sadness that such stories of survival were so rare. Pitchou was everything and more that I thought she'd be. But so were the others, who we assigned nicknames on our last day ...

Nyango, The Queen (female, born approx. 1990). The oldest at 9 years old, Nyango is the queen and she knows it. Raised by missionaries the first 3 or 4 years of her life, she was treated like a beloved child and still has difficulty understanding why she's shut inside an enclosure with other gorillas, instead of wandering around the rest of the zoo with her loyal subjects, the people who are there to admire and love her.

Pitchou, The Princess (female, born approx. 1997). As the youngest gorilla at Limbe, Pitchou is also the one who seems to know she's a gorilla the best, teaching the others tricks of the gorilla trade. Her name means "Polka Dot" in the local language, since she arrived covered with the scars of ringworm, her belly bloated from malnutrition and barely alive. Her survival is nothing less than amazing. Pitchou simply melts my

heart, and not just because her survival is so miraculous. It's the feisty will to survive against all odds, combined with a confidence and sweetness that makes her so special.

Chella, The "Robin Williams" of Gorillas (male, born approx. 1994). The actor/comedian Robin Williams uses his quick wit and facial expressions to create hysteria and uncontrollable laughter for all around him, and Chella, the oldest (perhaps 6 years old) male at Limbe is his gorilla reincarnation. I've never seen so many silly play faces and goofy gestures combined with a gentle, sweet nature in any other gorilla.

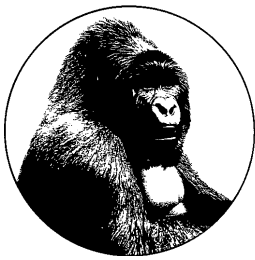
Like many comedians, their humor borne of tragedy, Chella's beginnings in life are horrific. He arrived at a logging camp, clinging terrified to the dead body of his mother, killed with the rest of his family for bushmeat. They couldn't pry him off his mother and when they finally did, his Limbe keepers held and cared for him 24 hours a day, 7 days a week for months, before he was able to slowly accept his new lot in life. Most gorillas simply give up, after this kind

of a trauma, and I'm convinced if the Limbe staff hadn't spent the time and efforts, holding and reassuring this young baby gorilla, Chella wouldn't be here. And a world without Chella would be a crime. I can't wait to see Chella as a silverback.

Emma, Miss Demure (female, born approx. 1996). Emma's life also began with the trauma of her capture, and medical woes have seen her several times on death's door, with IV drips and just the determination and love of the Limbe staff and prayers keeping her alive. She seemed depressed to me, and would often sit sucking the hair on her arm while the other gorillas played around her. But other times she'd climb and laugh and play like the others. Emma seems to be in her own little world at times, still trying to come to terms with where her life has brought her.

Evindi, a.k.a. Romeo (male, born approx. 1994). Evindi's eyes could melt the coldest heart. He's smaller than Chella, but a lover boy who would follow us around with his eyes wherever we went, and come to sit near us, just to be close. Evindi might decide to be dominant if he and Chella mature together, but the jury's still out on that one. Evindi, like so many young male gorillas I've observed, would alternate between strutting around like a big boy and then act childish, pushing away other gorillas getting too much attention (in Evindi's mind), as his jealousy took over.

Jumbo, The Little Mermaid (female, born approx. 1996). The enclosure at Limbe has a small wading pool as well as a water fountain that the gorillas can operate by pressing down, starting a stream of water. Jumbo spent a lot of her time sitting on top of the water fountain, washing her toys, food, self, etc., or playing in the pool. And Jumbo was always in the thick of things when food or games were involved, a very confident and curious



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young heroine, like Ariel, of Disney's "Little Mermaid" story.

Benito, The "Gary Cooper" of Gorillas (male, born approx. April 1996). Like the movie actor of yesterday, Benito is a classic, handsome, strong and silent type. The youngest of the 3 males, Benito arrived at Limbe with Emma, and spent his first months there in the constant care of his human caregivers, who selflessly gave him 24 hour care love and attention. Again, I'm convinced this is the secret to his survival.

My last day in Limbe a French couple approached us, saying they had a 5 month old baby chimpanzee they were going to bring to the center. Linda Percy had to turn them away, saying they simply didn't have the money or the staff to take on the 24 hour demands of such a young baby. Linda advised the couple to bring the chimp to the zoo in Yaounde, but later she told me she had to do this horribly painful task of turning away animals more times that she'd like. The center never pays for animals, so this is getting out and now hunters know they won't be rewarded for bringing baby primates to Limbe. Still, other well-meaning people will pay for a primate baby, convinced they're doing the right thing, even though they're just contributing to the trade in baby primates unwittingly. Education is essential.

I'd traveled to Africa at least a dozen times, to southern and eastern African countries. This was my first time to West/Central Africa and I was amazed at the potential of Cameroon's people, the country and the wildlife. The setting is magical, with Mt. Cameroon looming over Limbe, a coastal village where the Atlantic Ocean gently laps against the shores and Bioko Island, Equatorial Guinea silhouettes the sunsets each night. That such a magical place is also the setting for the slaughter of so many animals and the destruction of so much diversity, so forests



A gorilla group feeding in the Maya Nord clearing

Photo: Florence Magliocca

can be logged to meet the supply of ignorant or selfish western countries is heart breaking. But ignorance doesn't have to have fatal consequences. The problems of Africa are huge and often I hear people sighing that it's too much for one person to handle. But one person CAN make a difference. I saw the difference my money made at Limbe, in the smiles of the staff and the well adjusted behaviors of the gorillas, who should be basket-cases or dead, given their unfortunate histories. Even a small donation goes so much further in Cameroon than it might in a western country.

The mere thought of Pitchou brings a smile to my heart and the money we sent to help her more than a year ago remains the best investment we've ever made.

Jane Dewar

Gorillas in the Odzala National Park

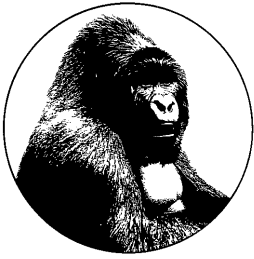
As part of the European program ECO-FAC, a study of the large mammal populations frequenting the swampy clearings of the Odzala National Park, Republic of Congo, was conducted over a period of 10 months. This study has especially focused on gorillas that visit the Maya Nord clearing, located 10 km north of the park boundaries. The

exceptionally good visibility has permitted an accurate determination of group composition and population structure. In Maya Nord, gorillas were present for 88% of the 132 observation days. A total of 398 hours of direct observation have been carried out. Altogether 217 group visits and 224 solitary visits have been recorded, corresponding to a total of 2,637 gorilla visits. 442 gorillas have been identified including 37 groups and 21 lone gorillas.

The gorilla density has been estimated at 10 individuals/km². Groups include only one silverback male and have a mean size of 11.7 individuals (range 2–29), which is larger than what has already been described for western gorillas. The mean number of infants per female (0.63) characterises a high birth rate. Infants, juveniles and subadults represent 56% of the population. The equal contribution of the three non-adult classes, about 20% each, confirms the good survival of young, especially during the passages from infant to juvenile and from juvenile to subadult.

Swampy clearings are especially attractive to gorillas that devote about 66% of their presence time to feeding on 4 herbaceous plant species. Sample analyses have shown that plants in clearings were richer in mineral salts than those in forests.

Several groups and/or lone individu-



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Silverback in Maya Nord

Photo: Florence Magliocca

als may visit he area simultaneously and 55% of the visits have led to inter-group encounters. In general, groups and/or solitary individuals ignore each other and only 29% of such encounters have led to agonistic interactions. Peaceful approaches (23% of inter-group encounters) and group mixings (6%) were observed. In spite of food selectivity and the patchy distribution of preferred plants, resource abundance seems to permit peaceful coexistence.

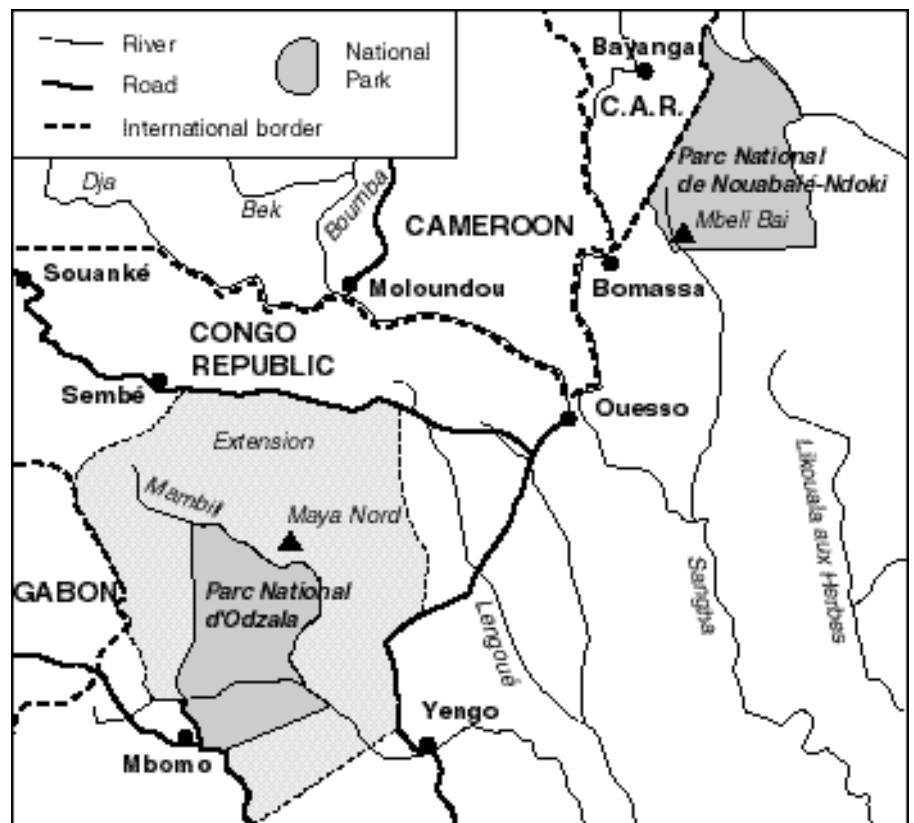
Abundance of Marantaceae in the forest and mineral-rich places in marshy clearings allows the Maya Nord region to house a large population of gorillas. Minerals may play an important role in the high birth rate and survival of offspring. The long-term survival of this population seems secured under the present conditions of the park which currently has no timber harvesting, low human presence and very low levels of poaching.

Unfortunately, human pressure is still increasing in the areas close to the park. This highlights the value of the current ECOFAC conservation program which focuses on western lowland gorillas together with other key species, such as forest elephants which inhabit the Maya Nord region. It encourages

support of the park extension project to include this area, rich in numerous salt clearings and still spared by logging. The extension of the park would provide a sufficient area to assure the survival of large mammal populations such as elephants. It would also permit connections with other protected regions. The ECOFAC leaders still have to convince the authorities that the development of the park will provide financial resources to the local human populations. The park's financial autonomy is one of the main objectives of the ECOFAC program, and the development of ecotourism, facilitated by the exceptional conditions of observation, is considered a promising way of attaining it. Unfortunately, the current political conditions make the reinforcement of the protected areas difficult and

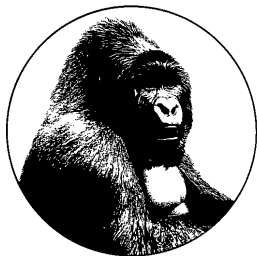
the park extension project has been postponed.

Florence Magliocca
Funding for this study was provided by the EU ECOFAC program (Forest ECOsystems of Central Africa). I want to thank E. Pironio, initiator of the program, J.M. Froment, ECOFAC-Congo project leader, and C. Aveling, project co-ordinator. I acknowledge AGRECO for its technical assistance. Thanks to A. Gautier-Hion, my research director, for her help and her pertinent comments on my work.



Odzala and Ndoki National Park

Map: Angela Meder



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Gorilla Studies in the Nouabalé-Ndoki National Park

Field studies by the Japanese team in the Nouabalé-Ndoki area, in Northern Congo, began in November 1987, and ecological surveys of primates in the area were initiated in 1988 by Masazumi Mitani, Suehisa Kuroda and Tomoaki Nishihara. Beginning in 1989, a WCS (*Wildlife Conservation Society*) team initiated forest surveys in the area and in November 1993, with the great effort of WCS, the Congolese government established this area of 3,865.92 km² as a national park. The park is covered by primary forest, composed of 3 types of vegetation: evergreen monospecific forest (*Gilbertiodendron dewevrei*), semi-deciduous (mixed species) forest, and swamp forest. The annual rainfall is about 1,500 mm and is divided into a major dry season (December–February), minor rainy season (March–June), minor dry season (July–August) and a major rainy season (September–November).

Primates have been found in high densities within the park, with western lowland gorillas, chimpanzees, and nine other species of diurnal primates living sympatrically, without large human impact for at least 50 years. The Japanese research team has focused mainly on the feeding ecology of western lowland gorillas. As the gorillas were difficult to observe at the first study site (Njinji), data on gorilla behaviour was gathered indirectly and the main study methods used were dung and trail analyses, plus nutritional analysis of certain food items in the gorillas' diet. The phenology of fruit production was also studied to examine its effects on the gorillas' diet and Nishihara spent a full year in the forest from 1991 to 1992 collecting data on gorilla diet and seasonal fruit production.

Long-term studies have described mountain gorillas as primarily folivor-

ous and, for some time, this was assumed true for western gorillas as well. However, studies of the feeding habits of western lowland gorillas suggested that they might be considered frugivorous, and the relative importance of these dietary aspects formed the main body of Nishihara's work. The feeding ecology of chimpanzees was also examined using the same methods, enabling us to make comparisons between the two species and to describe ecological features of gorillas. Gorilla and chimp densities were estimated using nest counts (for gorillas) and direct counts of individually identified chimps. The important results were as follows:

- There is one main fruiting season (April–September) and a period of relative scarcity of fruit (October–March).
- Gorilla and chimpanzee population densities are remarkably high at the study site (size approximately 20 km²). Densities were 1.92–2.56 animals/km² for gorillas and 2.65 animals/km² for chimpanzees.
- The gorilla's basic diet consists of the fibrous parts of plants, though they also consume a large quantity of fruits corresponding to their seasonal availability. Chimpanzees mainly depend on fruits all year.
- Gorillas and chimpanzees share a large number of fruit food species, but overt competitive interactions over food have not been observed. On the contrary, we observed gorillas and chimpanzees peacefully co-feeding in fig trees during the period of relative fruit scarcity.
- Gorillas feed on mineral and protein rich swamp vegetation year round. Aquatic herbs in marsh grassland are particularly favoured.
- Niche separation between these apes is found over mineral food and protein food; chimpanzees acquire minerals and protein preying on birds, mammals, and insects whereas gorillas take them from herbs,

leaves, seeds, and different termites species from those eaten by chimpanzees.

Poor visibility as a result of dense vegetation has made direct observation of gorillas difficult. In May and June 1994, an extensive survey was conducted to find a study site where observation conditions would be better than those in the "Njinji" area. A good study site at an area of marsh grassland (about 1500 x 100 m) called "Guga Bai" was selected, where gorillas could be observed frequently with good visibility, and where several chimpanzees could be habituated. In late 1994, Nishihara established a study camp at this study site and started an intensive survey and habituation project. At Guga, gorillas can be located with ease, either as they pass through the open *Gilbertiodendron* forest that surrounds the bai, repeatedly using the same routes, or as the gorillas are already in the bai through the sound of food washing, moving through marsh or feeding grunts emitted by them. In order to increase observation frequency, platforms were set up in the trees at the points where gorillas habitually enter and exit the bai. Observation time could be greatly



A gorilla feeding in Mbeli Bai

Photo: Richard Parnell



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increased using these platforms. For example, between January and February 1995, we had gorillas in view for 427 out of 2,728 minutes (15.7%) we spent at the platform. At least 3 groups and 2 solitary males that utilize the bai have been identified; each group was cohesive and contained one silverback. The maximum group size was 16 individuals. We found that gorillas in a unit group moved in procession when they entered and exited the bai. Nine cases of such processional movement were observed. Data from these entries and exits suggest that silverbacks do not always lead group movement.

Gorillas frequently scratch soil on the floor in the *Gilbertiodendron* forest near the bai. The purpose of this is not clear but it probably serves to search for insects or other small animals, possibly including earthworms. It was difficult to find such animals during our own attempts at soil scratching, and therefore this behaviour did not seem to be an efficient form of nutritional intake. In addition, no fragments of insects or small animals were found in gorilla dung.

In 1994, Nishihara began a training program for Congolese research assistants at Guga. Students graduating from Brazzaville University were instructed in field research methods related to chimp and gorilla ecology. Results were presented by the students at seminars held in Brazzaville and at a primate conference in the United Kingdom. Unfortunately, the study and training program at Guga was interrupted by the civil war in 1997 and currently remains suspended.

Tomoaki Nishihara

The Mbeli Bai Gorillas – Social Structure and Behaviour

The first pilot study at Mbeli Bai, a



A gorilla and an elephant feeding in Mbeli Bai

Photo: Richard Parnell

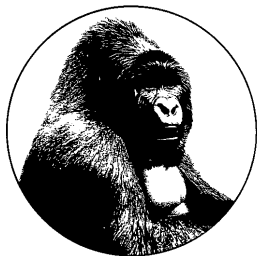
10 hectare swampy clearing in the southwest of the park, was conducted in 1993. A further pilot study in 1994 by Stephen Blake confirmed that the site attracted unusually large numbers of gorillas. Full-time monitoring and study at Mbeli Bai began in February 1995, under the direction of Claudia Olejniczak. At the beginning of 1997, Richard Parnell became the principal investigator for the study.

Until the commencement of the study, virtually nothing was known regarding the intricacies of western lowland gorilla social organization. Studies of mountain gorilla social structure have been detailed and wide ranging. By comparison, studies on western lowland gorillas have mostly described aspects of ecology such as feeding and ranging that can be studied using indirect evidence such as feeding trails, nutritional analysis and nest counts.

However, few advances have been made in addressing questions regarding social organization and interaction. Descriptions of social structure have relied heavily on secondary trail evidence and low sample sizes of known groups. Hypotheses regarding group dynamics, and in particular, the possibility that gorillas exhibit a fission-fusion organization not dissimilar to that observed in chimpanzees have been proposed but these also rely too heavily on night nest counts, a methodology that has been shown to be lacking in precision.

These "indirect" methodologies have been utilized primarily due to difficulties in habituating western lowland gorillas in their normal forest habitat. Even where the habituation of gorillas in the forest has been partially successful, only one or two groups have been studied. Mbeli Bai allows researchers visibility of complete social groups of gorillas. We are currently able to identify all individuals from 13 groups plus 8 solitary silverbacks; a study population of over 100 animals. This allows us to follow the dynamic shifts in group composition for a large number of groups, all of which are habituated to our presence at an observation tower at the bai edge.

The preliminary results show that groups with 2 silverbacks are rare and to date, no evidence has been collected to support a fission-fusion organization. Our findings indicate a much wider range of possible group compositions than have so far been described for the subspecies. In the context of our demographic monitoring, we have so far recorded 18 female transfers, 5 male emigrations, the birth of 16 infants and the death of 2 silverbacks, with the consequences for their groups. Several adult females in the study population have given birth to their second offspring since the start of the study, while some of those whose offspring died in early infancy have now



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given birth to their third infants, allowing us to monitor infant development and reproductive parameters. The number of individuals and groups known to the study has already enabled us to compile the most complete demographic data set for the sub-species yet extant; a resource that becomes increasingly important with each year of unbroken monitoring.

While attempts have been made to describe western gorilla social structure, data on individual gorilla social interactions are absent, with the exception of isolated anecdotal evidence. In previous studies examples of intra-group interaction have occasionally been witnessed, but such opportunities are rare and likely to be limited in their context, by poor observation conditions and an incomplete knowledge of the individuals involved. At Mbeli Bai, we often witness two or more groups using the clearing simultaneously and intergroup interactions are not uncommon. A significant characteristic of these encounters is the high degree of tolerance shown by group silverbacks. When agonistic encounters do occur, they are frequently initiated by, and confined to other group members such as black-backs, subadults and juveniles. By recording all aspects of these encounters, whether agonistic or affiliative, we are beginning to uncover layers of complexity and social awareness that are all too often hidden using more traditional study methods. Our data so far hint at the ways in which young animals gain the social skills required of them later in life, or even create "friendships" or animosities that may later affect the likelihood of female transfer or of tolerance between group silverbacks.

Data are also taken on the form of these interactions, which will enrich wild gorilla ethograms and provide information in areas such as gestural and vocal communication as well as positional aspects of interaction. Most en-

counters recorded are dyadic in nature, but analysis will also be performed on encounters that affect more than one member of each group. Observations are also analyzed temporally to understand to what extent gorillas of various ages observe a form of "etiquette" in their interactions with each other. Are there set rules governing the behaviour of different age and sex classes, or does the form and outcome of interaction depend more on past experiences or the proximity of a silverback from either group?

So far, observations are taken only at the bai and no attempt has been made to habituate groups to being followed into the forest, though it is expected that this may become the logical next step with one or more of the groups that visit the bai. The philosophy of the study is that, wherever possible, long-term research of vulnerable species such as gorillas should not be divorced from concerns about their conservation status. Though a full-time research project, this philosophy has led us to undertake conservation education efforts in the Upper Sangha region, through the creation and distribution of a conservation newspaper

for high-school age children and the setting up of a children's conservation club. A pilot launch of this project at the local school has generated considerable interest throughout the region, and we hope to expand these activities considerably in the future.

Richard Parnell



Gorillas feeding in Mbeli Bai

Photo: Richard Parnell



READING

Joanna Haworth

Life after Logging: The Impacts of Commercial Timber Extraction in Tropical Rainforests. Friends of the Earth Trust 1999. 72 pages, 4 pages with coloured photos. ISBN 1-85750-327-9.

This is a review of studies (including some unpublished papers) that examined the effects of logging activities in the tropics, a good overview of the most important findings, especially useful for beginners. It analyzes the impact on the forest habitat, on certain animal groups, on the physical function of the ecosystem, on society (including forest-dwelling people) and economics. Further effects of the logging methods like fire, road construction etc. are also described. With these results, the author discusses how the adverse effects of logging could be reduced and if sustainable logging is possible at all. The references of the original studies are also very helpful.

Christopher Boehm

Hierarchy in the Forest. The Evolution of Egalitarian Behavior. Cambridge (Harvard Univ. Press) 1999. 320 pages. £ 24.95, US\$ 39.95. ISBN 0-674-39031-8.

Cas Besselink, Peter Sips (eds.)

The Congo Basin: Human and Natural Resources. Amsterdam (Netherlands Committee for IUCN) 1998. 214 pages. £ 16.75, US\$ 25. ISBN 90-75909-04-7.

Sophie Higman et al.

The Sustainable Forestry Handbook. London (Earthscan) 1999. 304 pages. Paperback, £ 25. ISBN 1-85383-599-4.

John G. Fleagle, Charles Janson and Kaye Reed (eds.)

Primate Communities. Cambridge (Cambridge University Press) 1999. 339 pages, 105 line diagrams, 48 ta-

bles. Hardcover £ 50.00, ISBN 0-521-62044-9. Paperback £ 18.95, ISBN 0-521-62967-5.

H.D. Rijksen and E. Meijaard

Our Vanishing Relative – The Status of Wild Orang-Utans at the Close of the 20th Century. Kluwer Academic Publishers 1999. 486 pages, hardcover, £ 114.00, US\$ 195.00. ISBN 0-7923-5754-X.

Rosamond Halsey Carr and Anne Howard Halsey

Land of a Thousand Hills. My Life in Rwanda. New York (Viking Penguin) 1999. Hardcover, US\$ 24.95. ISBN 0670887803.

Denise D. Cummins and Colin Allen (eds.)

The Evolution of Mind. New York (Oxford University Press) 1998. 272 pages. US\$ 35. ISBN 0195110536.

Hostile to Democracy. The Movement System and Political Repression in Uganda. Human Rights Watch 1999. Available from the internet at <http://www.hrw.org/hrw/reports/1999/uganda/zack.html>.

J. Swarbrooke

Sustainable Tourism Management. Wallingford (CABI Publishing) 1999. 384 pages. Paperback, £ 24.50, US\$ 45. ISBN 0-85199-314-1

Sue Taylor Parker (ed.)

The Mentalities of Gorillas and Orangutans. Cambridge (Cambridge University Press) 1999. 428 pages, 30 line diagrams, 29 half-tones. Hardcover, £ 50. ISBN 0-521-58027-7.

Sue Taylor Parker and Michael L. McKinney

Origins of Intelligence. The Evolution of Cognitive Development in Monkeys, Apes, and Humans. Baltimore

(The Johns Hopkins Press) 1999. US\$ 55.00. ISBN 0-8018-6012-1.

Phyllis Dolhinow and Agustin Fuentes (eds.)

The Nonhuman Primates. Mountain View (Mayfield) 1999. Paperback. US\$ 28.95. ISBN 1-55934-974-3.

John G. Robinson and Elisabeth Bennett (eds.)

Hunting for Sustainability in Tropical Forests. New York (Columbia University Press) 1999. 100 pages. Hardcover US\$ 75, ISBN 0231109768; paperback US\$ 29.50, ISBN 0231109776.

Ludo de Witte

De moord op Lumumba. Leuven, Belgium (Van Halewyck) 1999. 496 pages.

Birgit Steck, Wolfgang Strasdas and Evelyn Gustedt

Tourism in Technical Co-operation. A Guide to the Conception, Planning and Implementation of Projects Accompanying Measures in Regional Rural Development and Nature Conservation. Eschborn (TZ-Verlagsgesellschaft) 1998/99. DM 15. Available in German (134 pages, ISBN 3-933984-10-6), English and Spanish. The publication can be downloaded in .pdf format in German (<http://www.gtz.de/toeb/pdf/tourismus.pdf>), ISBN 3-933984-10-6, English (<http://www.gtz.de/toeb/pdf/tour-e.pdf>), ISBN 3-933984-17-3 and Spanish (<http://www.gtz.de/toeb/pdf/tour-sp.pdf>), ISBN 3-933984-18-1.

T. Hofmann, H. Roth and H. Ellenberg

Game Meat in West African Moist Forest Regions. Eschborn (TZ-Verlagsgesellschaft) 1998/99. DM 10. F-V/7 (German, ISBN 3-933984-12-2), F-V/7e (English, ISBN 3-933984-29-7), F-V/7f (French).



READING



A Poster to Fight the Bushmeat Trade

The *Primate Conservation & Welfare Society* (PCWS) has recently premiered a poster regarding the trade in bushmeat in Africa. This poster has been designed to educate the public about the issues surrounding commercial deforestation and the hunting/killing of primates in Africa. The poster images have been donated by world famous photographers Steve Bloom and Karl Ammann.

In addition to the poster PCWS has also designed a detailed **Bushmeat Action Kit** which offers concerned individuals ways in which they can help. You can download it as .pdf files from <http://www.primates-online.com/bushmeat.html>. PCWS has also begun a "Bushmeat Petition", copies of which are available by writing to PCWS or from their website.

The bushmeat poster is available for US\$ 10.00 each (plus \$ 4.25 for poster tube and postage – international postage is \$ 6.50). A large portion of the proceeds of the poster sales will go directly toward primate conservation organizations whose objectives include

action to halt the trade in bushmeat. The rest of the proceeds will be used to sponsor a similar education program in Africa as well as other PCWS programs including their Orangutan Poster Project and a proposed Primate Education Center. If you are interested in ordering this poster, please download the poster order form at the PCWS website and send your check or money order to:

The Primate Conservation & Welfare Society
P.O. Box 2101
Port Townsend, WA 98368
USA

For further information, e-mail Hope Walker (gorillas@waypt.com).

News from the Internet

The *Ape Alliance* is a cooperation of conservation organizations concerned with the great apes, including *Berggorilla & Regenwald Direkthilfe*. Now the *Ape Alliance* has its own web site at <http://www.ndirect.co.uk/~virunga/apal>. After a long time of

working on it, the *Dian Fossey Gorilla Fund Europe* now also has a web site: <http://www.dianfossey.org>. Their newsletter *Digit News* can be found there in the "newsletter" section.

In September, the famous British animal park Howletts launched a virtual zoo at <http://www.howletts.net>. Six cameras enable the internet user to observe the world's biggest gorilla colony, African elephants, Siberian tigers and bongos.

The *National Geographic Magazine's* site features Michael Fay's year-long trek through the Congo basin – the "Central African Megatranssect Project" – that started in 1999. News from the forest and a lot of interesting information is available at <http://www.nationalgeographic.com/congotrek> and at the WCS (*Wildlife Conservation Society*) site at <http://www.wcs.org>.

A discussion paper for the next CITES meeting on *BUSHMEAT as a Trade and Wildlife Management Issue* can be downloaded in .pdf format at <http://www-esd.worldbank.org/wwf> and at <http://www.cites.org/CITES/eng/cop/11/docs/44.pdf>.

Gorilla Art Exhibition

From 30 October to 4 November 2000, the artist Chisato Abe will show 20 large oil paintings with gorillas. She is specialized in drawing and painting gorillas.

The exhibition will take place at:

Gallery Inoue
3-5-6 Ginza
Chino-ku
104-0061 Japan
Tel. +81-3-3562-1911





BERGGORILLA & REGENWALD DIREKTHILFE

Helping Hands for the English *Gorilla Journal*

Translations from German and French

Dr. Bettina Grieser Johns

is a freelance writer, translator and biologist who has done research in Uganda, Madagascar, Malaysia and Vietnam. She accompanied her husband Andrew to a conservation job in Vietnam and is currently pursuing interests in primatology and ecotourism development.



Proofreading

Ann DeVoy (left) has lived in Germany since 1985. She has a degree in English literature from S.U.N.Y. College at Brockport (USA) and a degree in translation from the Fachhochschule Köln, Germany. She has been working as a Projects Assistant at the IUCN Environmental Law Center in Bonn since 1997.



Dr. Jennifer Scott (right) is a lecturer at the University of Canterbury at Kent, England, Department of Anthropology. She is currently doing a study of Machiavellian intelligence among the members of 5 large gorilla groups housed at Howletts Wild Animal Park, near Canterbury. Her PhD research involved the study of dominance and competitive interactions among female gorillas, again at Howletts.

Mailing of the Journal in America

Hope Walker (left) worked in various fields until the end of 1998: documentary film with credits in BBC One, *National Geographic*, *Discovery Channel* and Animal Planet programming; Organization Administration including corporate real estate; Freelance Writing and Animal Training. In 1998 she founded the *Primate Conservation & Welfare Society*, a charity dedicated to primate conservation and welfare.



Website Management

Stephanie Hancock (right) found out shortly after her first visit to the mountain gorillas of Zaire in 1994 that Marcel, the silverback she had visited,

had been shot by poachers. She decided to use her new Internet venture, *Kilimanjaro Adventure Travel* (www.kilimanjaro.com) to promote a Gorilla Help Site calling attention to the plight of these gentle creatures. She created and has been maintaining the web site for *Berggorilla & Regenwald Direkthilfe* as part of this effort.

Donations

We thank each person and company who supported us from June 1 to October 31, 1999. We received larger contributions from *Abercrombie & Kent*, Elke Bakels, Georges Breny, Katharina Hummel, Angelika Kraus, Angela Meder, Susanne Messmer, Hans Preissner, Sylvia Ruoff, Juliana Ströbele-Gregor, Cecile Vischer and Karl-Otto Weber. Equipment was donated by *Hanwag Sportschuhfabrik*, Volker Jährling, *Volcanoes Safaris* and Klaus Fenger. Erwin F. Reisch (*Gentner Verlag*, Stuttgart) funded reproduction and composition of the journal. Many thanks to everybody!

A NEW SAFARI ALTERNATIVE

Mgahinga Safari Lodge is a new luxury lodge, perched at the tip of a peninsula jutting into the waters of Lake Mutanda, in southwestern Uganda. The lodge is the ideal setting from which to track the mountain gorilla in nearby Mgahinga Gorilla National Park; venture deep into Bwindi Impenetrable Forest; search for savannah antelope in Lake Mburo National Park; or visit Lake Bunyonyi – renowned as the 'lake of little birds and sweet water fish'.

The lodge complex consists of a main building – which houses the reception, restaurant, lounge and bar – and six spacious, twin-bedded tents. All equipment at the lodge is of the highest European standard. The tents are en suite, with hot showers and flush toilets, and have continental quilts and pillows. Soft drinks and laundry service are provided. The restaurant serves a high standard of continental and traditional cuisine accompanied by a selection of local and international wines and spirits.

For further information contact:

Afrika Adventure Touristik, Kurt Niedermeier
Seehaupter Str. 17, D-81476 Munich, Germany
Tel: +49-89-75979626 Fax: +49-89-75979627
E-mail: MSLGorilla@aol.com

P.O. Box 5326
Kampala
Uganda

Emergency Appeal to Save the Mountain Gorillas

A few months ago, Praveen Moman, Director of *Volcanoes Safaris*, contacted several conservation organizations that are involved in mountain gorilla conservation. He suggested to the NGOs to join with him to ensure the survival of the mountain gorillas. He launched an appeal and designed a leaflet that was first distributed in London at the World Travel Market.


The aim of the appeal is to raise US\$ 70,000 until March. It will go to projects run by *Berggorilla & Regenwald Direkthilfe*, *Dian Fossey Gorilla Fund Europe* and the *International Gorilla Conservation Programme*. The partners decided that \$ 12,000 will be spent for basic equipment, \$ 28,000 for radio and telephone equipment and 30,000 for tourist guides and security.

Further information and donations:

Volcanoes Emergency Gorilla Appeal
 c/o *Fauna & Flora International*
 Great Eastern House, Tenison Road
 Cambridge CB1 2DT
 Great Britain
 Tel. (+44) 01223-571000
 Fax (+44) 0223-461481
 KathFFI@aol.com



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E-mail: volcanoes@mailbox.co.uk
Visit our website: www.VolcanoesSafaris.com

**Left: Leaflet of the Volcanoes
Emergency Appeal**

Subscription to the *Gorilla Journal*

If you become a member, you will receive the journal regularly. If you want to subscribe 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. Please send your application with a cheque to Rolf Brunner (address below).

Declaration of Membership

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

Name _____ Affiliation _____

Address _____

Birth date _____ male female

Yearly subscription (please mark)

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- US\$ 75 (General member)
- US\$ 120 (Family)
- US\$ 180 (Donor)

Date and signature _____

Please send to:
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Berggorilla & Regenwald Direkthilfe
 Lerchenstr. 5
 45473 Muelheim, Germany
 Fax +49-208-7671605

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 Account number 353 344 315
 Stadtparkasse Muelheim, Germany
 Bank code number 362 500 00